THE FUTURE OF TRANSPORTATION

Contents

Introduction

As WAMPO considers the impact of changes in technology to transportation, changing demographics and uses in land development, there is a need to assess the perceptions of value, need and level of support for investments to meet the needs of the community. Research and community engagement assisted in charting a decision path forward. In response to the Request for Proposal No. – FP190026 from the Wichita Area Metropolitan Planning Organization (WAMPO), the Public Policy and Management Center (PPMC) at Wichita State University assisted WAMPO with research to complete a public engagement initiative focused on the future of transportation investment.

The purpose of this project was to create a meaningful stakeholder engagement initiative focused on the future of transportation investment to aid in the strategic investment decision-making process. The PPMC worked with staff and stakeholders to create a strategy to assess the current interest and awareness for alternative mode choices in transportation strategies, explore how other metropolitan areas have engaged communities to identify alternative future transportation methods, and develop a plan for itemization of priorities for future investment considerations and opportunities for maintaining relationships with the public. The PPMC is an independent research center driven by the mission of public service, coupled with a strong commitment to delivering a quality product.

Methodology

The process used for the research and stakeholder engagement was to: 1) develop a strategy for public engagement that builds on the accomplishments and challenges of existing community work; 2) collect and analyze data that informs WAMPO of infrastructure and mode choice preferences and perceptions by generational categories, including creation of a survey instrument; 3) analyze and interpret data to create a concise itemization of priorities for future investment and considerations, including lessons learned and opportunities for maintaining relationships with the public.

The process is designed to create a foundation for future community engagement regarding the expectations, potential usage and impact of alternative transportation. The three main tasks include: 1) develop an engagement strategy and timeline highlighting the activities, methods, roles and responsibilities; 2) assist with the development and execution of an inclusive regional survey and stakeholder engagement process that informs WAMPO of infrastructure and mode choice preferences/perceptions organized by the generational categories; 3) data analysis and interpretation including lessons learned and opportunities for maintaining public relationships. The following tasks were completed.

Task 1: Strategy Development

STEERING COMMITTEE: The PPMC worked with WAMPO to identify and recruit project leaders to serve on a steering committee to advise and guide project development and implementation. The steering committee was comprised of the following organizations:

1. Bike Walk Wichita
2. City of Haysville
3. City of Wichita- Council
4. City of Wichita Engineering Department
5. Consultant (representing the interests of smaller cities)
6. Federal Highway Administration
7. Kansas Business Services
8. KDOT – Freight & Rail Representative
9. KDOT – Planning Representative
10. Sedgwick County Public Works
11. Wichita Transit
12. Wichita-Sedgwick County Metropolitan Planning Department

LITERATURE REVIEW: The PPMC reviewed research and data provided through existing community work from WAMPO and other organizations, such as Project Wichita, the Regional Economic Area Partnership (REAP), and WAMPO MOVE 2040. Strategy development built upon the accomplishments and challenges of existing community work. In addition, Center staff reviewed research about other national metropolitan areas that are leaders in adapting alternative transportation methods. For more detail on the research and data review see the Technology Appendix.

FOCUS GROUPS: The PPMC conducted 11 targeted focus groups, which included 143 participants, across the WAMPO region to collect input from various demographics. This information was used to inform the development of the online community survey.

COMMUNITY SURVEY: The PPMC developed a community online survey to assess the public's interest in various current and future transportation options. The survey was posted on the WAMPO website and promoted through WAMPO partners. The survey was completed by 543 respondents. For maps of all respondents and respondents living in the WAMPO region, see the Maps Appendix.

MEDIA EVENT AND INFORMATION RELEASE: The PPMC anticipated most of the public had limited information on the potential changes in transportation for the future and the impact to the community. Therefore, making the transportation implications of the future tangible to the public was important for this project's success. The PPMC developed an informational video, posted on the WAMPO website, to inform the public about future transportation trends. The video may be viewed by clicking HERE. This video was used in focus groups and to

introduce the online community survey. The PPMC assisted WAMPO in the planning and delivery of a press conference, conducted on March 5, 2020 as part of the City of Wichita's Mayor's briefing. Several local press organizations attended the briefing and helped promote the survey.

Task 2: Data Collection

STAKEHOLDER ENGAGEMENT: The PPMC conducted a series of structured interviews with stakeholders and focus groups that included regional transportation planning organizations and businesses who provide, or are dependent upon, the transportation system. Special efforts were made to engage multi-generations and underrepresented populations in existing transportation systems, such as low-income households, minorities, individuals with limited English proficiency, individuals with a disability, older adults and households without a motor vehicle.

The intent was to share the research on transportation issues of the future, as well as gather input on implications, anticipated issues and overall impact for transportation needs in the future.

SURVEY INSTRUMENT: Based on the research and engagement of key stakeholders, the PPMC worked with the WAMPO team to develop a survey tool and tool adaptations for in-person and remote settings. The project management team met regularly to guide the development of the survey.

Development of the survey tool was guided by the WAMPO steering committee and WSU staff. Depending on the determined needs and the sampling frame identified, the survey was designed as a printed and mailed survey, online survey or intercept in-person survey.

The PPMC was responsible for receiving data, coding, analyzing and developing the final report of the survey. An electronic copy of the final survey report was provided to WAMPO.

Task 3: Data Analysis and Interpretation

The PPMC compiled and analyzed data from interviews, focus groups, community meetings and the survey instrument to develop a final report that includes a concise itemization of priorities for future investment, including lessons learned and opportunities for maintaining relationships with the public.

Focus Groups

As part of the Future of Transportation project, the PPMC conducted 11 targeted focus groups across the WAMPO region to collect input from various demographics. Originally, the engagement plan included 16 focus groups. The Coronavirus pandemic and the associated state stay-at-home order led researchers to cancel all focus groups not completed before the order went into effect. The focus group results provide a snapshot of multiple generations' perspectives about the future of transportation and what investments need to be a priority.

Focus groups were chosen to attract demographics that are: (1) typically underrepresented in traditional community engagement efforts, and; (2) those groups who will be the most impacted by future transportation investments. Younger generations were engaged through focus groups with the Wichita Mayor's High School Youth Council, post-secondary students at Wichita State University, WSU Tech and Butler County Community College and the Wichita Youth Advisory Council (comprised of groups that serve high-risk youth). The Wichita Bike and Pedestrian Advisory Committee, advocates for pedestrian friendly transportation, hosted a focus group. The City of Wichita and Sedgwick County Commission advisory boards also hosted focus groups. A focus group was completed with Goddard, a suburban community, in order to capture opinions from suburban residents. An online focus group was completed with Envision clients, who have various levels of visual impairments, to capture a differently-abled population perspective.

Participants in focus groups were shown a brief informational video featuring an introduction from the WAMPO Technical Advisory Committee Chairman and Andover City Council Member, Troy Tabor. The content of the video, originally produced by Cisco, provided information and demonstrations of smart city technologies, originally produced by Cisco. The video was intended to provide a frame of reference for participants to begin thinking about possibilities for the future of transportation.

After showing the video, PPMC facilitators asked a series of questions to identify the priorities for each focus group. The first question explored the most critical types or transportation which is most critical for the region to address when making future strategic plans. Participants were then asked to determine what types of transportation investments should be prioritized considering emerging transportation trends. Facilitators asked follow-up questions to encourage participants to elaborate on their recommendations. Overall 143 participants took part in focus groups.

All the focus groups spent a portion of time discussing the mass transit system in the WAMPO region. The clear consensus across groups acknowledged the area transit system needs to be more user friendly, expand its routes and hours and be affordable. According to participants, the current system is not available at all needed times and does not run efficiently outside of the main core of the Wichita community. Focus group participants recommended extending service to the suburban areas and embracing available technologies to improve accessibility.

Stigma around mass transit was also discussed in many of the focus groups. Users of mass transit were perceived to have lower income levels, and buses were viewed as the transportation option of last resort. Personal safety was also a concern in using public transportation. Current routes were identified as unhelpful and inefficient. Many of the locations that participants travel to required transit rides of more than an hour and necessitate changing buses.

Affordability of mass transit was also highlighted. The Youth Advisory Committee noted many of the high-risk youth did not have sufficient resources to pay for the mass transit system. Making transit low- cost or free was an idea proposed by many focus groups, but a definite need for youth. Envision participants expressed a similar sentiment. For many of the visually impaired community, public transit is a primary transportation option and affordability was a major issue.

Following discussion about the current bus system, many focus group participants suggested adding a train system to the mass transit system. The type of train system varied depending on the focus group participants. Three of the groups favored a more European-style train system that would take the place of the current bus system in many areas. More modest proposals came from the Bike and Pedestrian Advocacy group, recommending that trains be used only in the downtown Wichita area and connecting the airport.

Another common theme included increased access to biking and pedestrian walkways. One focus group member, in the Mayor's Youth Council, pointed out that biking and walking are more as recreational rather than modes of transportation. Many other groups expressed the same opinion. However, members of the focus group in Goddard agreed that biking and walking are not transportation options in the outlying areas. Suburban sprawl does not have the density to make walking a viable mode of transportation. Safety of bike lanes was also an issue addressed by two of the groups. Many participants were skeptical that motorists in the area respect existing bike lanes. Half of the focus groups also noted that connecting existing pathways should be a priority.

Six of the focus groups mentioned that fixing the existing infrastructure needed to a fundamental priority. Many felt that adding new options was a nice idea, but money should be spent to maintain current infrastructure. One student in the Butler Community College group pointed out that alternatives to asphalt should be considered and mentioned other surface materials currently in development. The groups supported expanding some current roadways, while in other areas of the community, it may be appropriate to reduce the number of lanes to improve safety and reduce costs.

Another item mentioned, in all but two focus groups, was the need for better public information and signage. Specifically, information is needed to help inform the public about the benefits of transit options and counteract the stigma around using transit. Suggestions included a public information campaign, interactive signage at fixed stops and information on how to safely transition from bus to pedestrian or bike traffic. Participants from the WSU focus group specifically mentioned the need for information about the transition to motorized scooters, which can be rented and left at rider destinations.

Half of the groups mentioned equity issues within the transportation system. Movement toward technology-based infrastructure can leave out lower income and older individuals. One example cited was the use of smartphone apps for transit. Participants in the Envision group strongly advocated embracing technology to improve access for visually impaired individuals. The groups felt that technology was good and necessary but as it evolved it was important to remember that not all community members have access to technology.

Focus groups also spent time addressing various elements of transportation and technology. Topics included autonomous vehicles, 5G wireless technology, smart infrastructure, ride sharing, rentable scooters and bikes, emergency vehicle deployment, drone usage and the environmental impact of technology. On some issues no clear consensus was reached within the group and conversation expanded to more general concepts that needed to be considered in the planning process.

Autonomous vehicles were discussed in six of the eleven focus groups. A small minority of the participants were prepared to embrace the autonomous vehicles and looked forward to riding in driverless cars or buses. The biggest advantage for these people was the time they gained from not having to drive themselves to their destination. Most participants expressed trepidation about autonomous vehicles. Many were anxious about the technology and very skeptical that they would be utilizing driverless cars. The Mayor's Youth Council was highly critical of the safety issues regarding potential hacking or poor visual recognition technology for pedestrians.

Advances in wireless technology, specifically 5G networks, are necessary to facilitate many potential future technologies. Six of the focus groups had specific conversation about 5G technology. Most of participants equated the 5G network with advanced cellphone service and felt that enhancements would personally benefit them. Students in the Butler County Community College focus group recognized the importance of investing in 5G networks, but voiced concerns about data security when using this technology. Similar issues of security were raised by the Mayor's Youth Council. However, this group expanded the data security issues to include arguments about privacy and control of individual data.

The 5G network conversation expanded to smart infrastructure. A specific example of traffic light coordination already in place in Wichita was provided by facilitators to stimulate conversation. Smart infrastructure was a topic in three quarters of the focus groups, with most supporting more deployment of technology to improve the current environment. Participants at WSU Tech suggested that improving parking, including paying for parking with credit cards to technology to identify empty parking places, especially in congested areas. The Mayor's Youth Council viewed the use of cameras to monitor traffic and transportation as a potentially controversial issue.

Ride sharing, through companies like Lyft or Uber, was discussed in half of the focus groups. Generally, focus group participants viewed ride sharing with skepticism. Less than 20 participants indicated that they had used ride sharing services. When asked why those services were not used, participants in the Mayor's Youth Council felt that the safety risk outweighed the convenience. The Sedgwick County Commission District 4 Advisory Board noted that smart phone applications, like Uber or Lyft, presented a barrier for seniors who could not use the

technology or afford the price for the service. Envision participants generally embraced ride sharing technology but felt the price was a barrier for differently-abled individuals. Bike and pedestrian advocates felt that ride sharing was good for the community, but expressed concerns that policies are needed to prevent on-street parking in congested areas.

The use of rented scooters and bikes was discussed in four of the eleven focus groups. Overall, the use of shared rentals, specifically scooters, was viewed as a fad for recreation. Goddard focus group participants felt that bike shares were not an affordable option and not suitable for commuting. WSU students had mixed opinions about the use of scooters. However, they agreed that scooters should be managed better to prevent abandoned scooters in residential areas.

The use of technology for emergency vehicle deployment was discussed in two focus groups. Emergency vehicle deployment uses advanced network technologies to optimize response times, when routing ambulances and fire trucks to incidents. The Wichita District 3 Advisory Committee, which had a number of residents over 55 years of age, strongly advocated for improved response times that can be achieved through vehicle deployment technologies.

Drone usage for freight delivery was a topic in the WSU Tech focus group. The group was divided on the use of drones. Most participants felt that drone technology for delivery was inevitable and potentially a welcome addition, if it improved the speed and safety of delivery. A few participants did not embrace drone delivery. They expressed concerns that the technology could dehumanize customer service. Fear and skepticism around this technology was common theme in many focus groups.

An underlying theme in three of the focus groups was concern about the environmental impact of technology. The Wichita Bike and Pedestrian advocates thought the environmental impact should be a top consideration of any new deployment of transportation. The Mayor's Youth Council participants couched the environmental impact in terms of the potential positive impact associated with more people telecommuting. The ecological benefits of electric vehicles, especially buses, was acknowledged by the Wichita District 3 Advisory Board. Overall there was encouragement by the focus groups to keep environmentally friendly policies and technologies in mind when considering future transportation investments.

Community Survey

Section 1: Assessment of Current Travel Situation

This survey research begins by laying a foundational understanding of how respondents view issues of mobility and ease of movement in the Wichita metropolitan area. The first segment (Section 1A.) of the findings focuses on a combination of individual and community mobility. The concerns addressed relate to an individual's personal

situation, including ownership or access to an automobile or motor vehicle that provides reliable transportation. This segment also provides insight about the adequacy of the transportation system for selected population targets. The second segment (Section 1B.) assesses issues of mobility as they relate to the ease of travel associated with the automobile, the dominant mode of travel.

Section 1A. Household and Community Mobility

The automobile, including an assortment of motor vehicles, has long been the dominate form of mobility for western cities in the United States and the Wichita metropolitan area is no exception. The automobile, as the preferred mode of travel, has been instrumental in shaping communities throughout the United States and has enabled physical dispersion and urban sprawl. Low density living and suburbanization has been facilitated by an ever-expanding highway system and a "love affair" with the automobile that comingles with individual identity. More recently, there is a trend towards higher density urban dwelling, including what is sometimes referred to as place-based development. Place-based development can occur in multiple locations in an urban community, including redeveloped downtowns or central business districts featuring living, working and playing in a single location. The Wichita metropolitan community has initiated place-based and higher density living in the core area of the city. More recently, Wichita State University initiated place-based development centered on the socio-geographic space of the campus and surrounding area. Place-based development at Wichita State features innovation through the convergence of living, learning, working and playing with the intent of improved quality of life and a more vibrant regional economy. Place-based developments, such as these, could change the way that individuals connect with each other and consequently, preferred forms of transportation.

The first item in Table 1-1 provides an initial reading of support for change as it relates to urban transportation. Access to a vehicle is critical to economic and social opportunity in a community that is spatially dispersed. Unfortunately, the cost of vehicle ownership and operation is an important and growing concern. Despite these concerns, more than ninety-two percent (92.5%) of the respondents indicate that they have a dependable vehicle that meets their needs. Clearly, this positive reading reflects a response bias that under represents low-income households. Much as expected, the findings reported in Table 1-2 indicate that the highest income households (98.8%) are more likely to report owning a dependable vehicle compared to the lowest income households (80.4%).

Table 1-1
Assessment of Current Travel Situation:
Support for Change

Assessment of Current Travel Situation	Percentages			
	Definitely False	Probably False	Probably True	Definitely True
Section 1A. Household & Community Mobility				
I have a dependable vehicle that meets my transportation needs.	04.7	02.7	13.3	79.2
I like driving my own vehicle and it is important to my quality of life.	06.7	10.2	29.3	53.7
The current system meets the transportation needs of all age groups.	41.8	32.9	21.1	04.2
The current system meets the transportation needs of people with disabilities.	40.8	39.7	17.1	02.4
Section 1B. Ease of Movement: Automobile				
Area streets and highways are well maintained and are safe.	08.0	23.0	55.0	14.0
Traffic congestion is not a problem and the time it takes to travel between destinations is reasonable.	06.4	15.5	47.1	37.1

Range of N= 549-550

Attachment to motor vehicles is not simply a matter of mobility. The public likes their motor vehicles and they like driving, as witnessed by the findings associated with the second item in Table 1-1. More than four-fifths (83.3%) of the respondents report that they like driving their own vehicle and it is important to their quality of life. Further, more than half of the respondents (53.7%) report particularly intense support for vehicle ownership as a contributor to quality of life. The results reported in Table 1-2 indicate that the highest income households (92.3%) are much more likely to equate driving with quality of life compared to the lowest income category

(71.9%). Respondents 65 years of age and older (93.4%) are more likely than those 24 years of age and younger (77.4%) to report that driving their own vehicle contributes to their quality of life. Clearly, before individuals will part with motor vehicles and accept alternative modes of transportation, the impetus for change will need to be momentous and will probably include a convergence of forces.

The first two items discussed here primarily appeal to self-interest. The two items that follow are more about the public interest and the extent to which individuals are willing to balance self-interest and community responsibility. In other words, social and economic inclusion depends, in no small part, on the creation of transportation options for everyone. There are many forms of exclusion that differentially impact various segments of the community. This research explores issues of age and disability. Approximately one quarter (25.3%) of the respondents report that the current system meets the transportation needs of all age groups. The highest income group (33.7%, Table 1-2) is more likely than the lowest (19.6%) to report that the current transportation system meets the needs of citizens regardless of age. Assessments of the adequacy of the current transportation system, to meet the needs of individuals of all ages, does not vary statistically based on age of the respondent.

The final item in Section 1A explores the extent to which respondents recognize exclusion associated with differently-abled populations. Less than one-fifth (19.5%) of the respondents feel that the current system meets the transportation needs of those who are differently-abled.

Travel Situation Index/Classification -The four items discussed above have been summed to form an index that describes respondent views of the current transportation situation (i.e. 1=Definitely False, 2=Probably False, 3=Probably True, 4=Definitely True). Possible scores on this index range from 4 to 16 (Cronbach's Std. Alpha= .711). Higher scores on this index indicate support for the current transportation situation. Conversely, lower scores indicate more dissatisfaction with the current travel situation and consequently, these individuals are more receptive to change. The index has been recoded to form four classifications: (4-8=Very Negative, 9-10=Negative, 11-12=Positive, 13-16= Very Positive) about the current travel situation. This index provides a conceptual measure of respondent perceptions about the current transportation situation. The index is used to evaluate differences in respondents' opinions about transportation options discussed in the following sections **(See Table 2-2, Table 3-3 and Table 4-3).**

Section 1B. Ease of Movement: Automobile

Currently, the Wichita metropolitan area is primarily dependent on the automobile and individual motor vehicles for mobility. Section 1B provides an assessment of how respondents view vehicular travel and ease of movement in the metropolitan area. The first item in this section indicates that sixty-nine percent (69.0%) (Table 1-1) of the respondents feel that area streets and highways are well maintained and are safe. Findings reported in Table 1-2 indicate that the highest income respondents (76.9%) are much more likely to have a positive impression of local streets and highways compared to those with the lowest household income (56.7%). Logically, individuals

that are satisfied with individual vehicular travel are expected to be less supportive of action taken and investments made in support of the development of transportation alternatives.

Findings associated with the second item in Section 1B are even more convincing that respondents are satisfied with ease of movement via motor vehicular travel. More than four-fifths (84.2%) of the respondents report that traffic congestion is not a problem and the time it takes to travel between destinations is reasonable. In other words, compared to vehicular travel and traffic in many urban areas throughout the United States, local respondents appreciate ease of movement via motor vehicle in the Wichita metropolitan area. Views of congestion and travel time vary based on the income of the respondent. The highest income (81.7%, Table 1-2) respondents are more likely to describe ease of movement in a positive light compared to their low-income counterparts (66.0%). Interestingly, assessments of ease of movement do not seem to vary a great deal based on the age of the respondent.

Table 1-2
Assessment of Current Travel Situation by Income

(Percentages)	Income				
Current Travel Situation	1	2	3	4	5
Section 1A. Household & Community Mobility					
I have a dependable vehicle that meets my transportation needs.***					
Definitely False	13.4	3.6	3.1	4.1	0.6
Probably False	6.2	1.2	2.1	2.7	0.6
Probably True	19.6	20.2	17.5	13.5	4.2
Definitely True	60.8	75.0	77.3	79.7	94.6
I like driving my own vehicle and it is important to my quality of life.**					
Definitely False	11.5	6.0	7.1	9.5	1.2
Probably False	16.7	10.7	13.3	8.1	6.5
Probably True	29.2	33.3	30.6	25.7	29.2
Definitely True	42.7	50.0	49.0	56.8	63.1
The current system meets the transportation needs of all age groups.**					
Definitely False	48.5	48.8	51.0	40.0	30.2
Probably False	32.0	29.8	33.7	25.3	36.1
Probably True	16.5	15.5	13.3	29.3	28.4
Definitely True	3.1	6.0	2.0	5.3	5.3
Section 1B. Ease of Movement: Automobile					
Area streets and highways are well maintained and are safe.*					
Definitely False	12.4	6.0	5.2	8.0	7.7
Probably False	30.9	27.7	25.8	20.0	15.4
Probably True	51.5	51.8	54.6	57.3	57.4
Definitely True	5.2	14.5	14.4	14.7	19.5
Traffic congestion is not a problem and the time it takes to travel between destinations is reasonable.**					
Definitely False	10.3	8.3	4.1	5.3	5.3
Probably False	23.7	21.4	12.2	9.3	13.0
Probably True	48.5	38.1	58.2	41.3	45.0
Definitely True	17.5	32.1	25.5	44.0	36.7

Income: 1=Less than $40,000 2=$40,000-$59,999 3=$60,000-$79,999 4=$80,000-$99,999 5=$100.000 & Above Significance: *p≤ .05 **p≤ .01 ***p≤ .001

Section 2: The Importance of Transportation Investments to the Future of the Region

Section 2 of the research findings focuses on survey respondents' recognition of the connection between transportation investment and the future of the region. For ease of discussion, the investment items have been organized under two conceptual themes. Section 2A focuses on items most closely associated with economic development. Section 2B more generally focuses on investments that can be described as advancements in quality of life. In reality, factors contributing to economic wellbeing and quality of life comingle in ways that make them inseparable for purposes of policy, actions and investments that shape the wellbeing of the region.

Section 2A: Economic Development

This discussion begins with items that explore links between transportation and the economy, with an overarching assessment recognizing the connection between investments in transportation and business growth in the region. Most of the respondents (93.2%, Table 2-1) see a connection between investment in transportation and regional business growth. There are no statistical differences in the recognition of the connection between transportation and business growth based on household income. The findings reported in Table 2-2 reveal important differences in recognition of the connection between a variety of economic and quality of life features tied to the future of the region and transportation related investments. Specifically, an earlier discussion (Section 1A. Household and Community Mobility) described the methodology for classifying respondents (ranging between "Very Negative" to "Very Positive") based on their views of the current travel situation in the Wichita region. Specifically, respondents that are very negative (94.1%) about the current travel conditions in the region are more likely than those who are very positive (86.0%) to report connections between transportation and business growth. In other words, those who are particularly negative in their assessment of current transportation conditions in the region are more likely to see opportunity through investments in transportation to promote business growth.

In reality, connections between investments in transportation and the creation of economic opportunity are many and varied. Obviously, in the case of business and industry, shipment of parts, materials and products are critical for profitability. Business and industry also depend on a quality transportation system to promote access to labor. Individuals that are mobile are more likely to realize social and economic opportunity. Lack of reliable transportation is one of many barriers for societal inclusion of disadvantaged individuals. Obviously, the typical respondent to this survey is not necessarily considering an inclusive definition of relationships between transportation and economic opportunity. In any case, almost all respondents (95.0%, Table 2-1) see a connection between investments in transportation and regional wellbeing, including the creation of economic opportunity. Respondents that are very negative (96.4%, Table 2-2) about current transportation conditions are more likely than those who are very positive (87.7%) to recognize connections between investments in transportation and economic opportunity.

Table 2-1

Section 2. The Importance of Transportation Investments to the Future of the Region

"Investments in transportation are critical to the region's future for..."	Percentages			
	Definitely Not Important	Probably Not Important	Probably Important	Definitely Important
Section 2A. Economic Development				
...growing businesses in the region.	01.8	05.0	34.9	58.3
...improving economic opportunity for everyone.	01.1	03.8	26.1	68.9
...attracting more people to live in the area.	02.8	12.8	29.7	54.7
...keeping our young people in the area.	02.6	14.7	29.0	53.8
Section 2B. Quality of Life				
...reducing road congestion in highly traveled areas.	05.1	10.6	32.7	51.6
...maintaining or reducing commuting time.	06.2	13.7	35.9	44.1
...improving safety for everyone.	01.1	04.2	27.7	67.0

Range of N= 542-547

Growth is a mixed blessing in the minds of many people. For many communities, residents are "on the bubble" in their attitudes towards growth. Individuals "on the bubble" tend to want the benefits of economic prosperity that comes with growth but do not want to change the character of the community. Research associated with Project Wichita provides evidence that many people living in the Wichita metropolitan area are "on the bubble." Despite the potentially conflicting concerns, ninety-five percent (95.0%, Table 2-1) of the respondents indicate that investments in transportation are critical to the region's future including attracting more people to live in the area. Individuals who are very negative (94.1%, Table 2-2) about current travel conditions are much more likely than those who are very positive (73.7%) to report a connection between transportation, the future of the region and the attraction of more people to live in the area.

The economic development literature documents the importance of attraction and retention of a community's youth as critical to the economic prosperity of a region. It is also commonly recognized that South Central, Kansas is facing challenges related to the retention of high school and college graduates. The place-based economic development strategies discussed earlier assume that these types of investments will contribute to making the region more attractive to the youth who are critical to area's economic future. The last item in this segment of the report focuses on the role of transportation as it relates to retention of the region's youth. More than four-fifths (82.8%, Table 2-1) of the respondents indicated that investments in transportation are critical to the region's future for keeping our young people in the area. Individuals sixty-five years of age and older (86.9%) are somewhat more likely than those twenty-four years of age and younger (77.4%) to recognize the connection between transportation and retaining the community's youth. Individuals who hold particularly negative (92.8%, Table 2-2) views of the current transportation situation in the region are much more likely than those who are particularly positive (69.2%) to report a connection between transportation and the retention of the community's youth.

Section 2B. Importance of Transportation Related Investments: Quality of Life

The first item in this section returns to issues of mobility and the extent to which road congestion represents an important barrier to quality of life. Earlier findings generally indicated that respondents are not overly concerned about problems with congestion in the region. Despite this lack of concern, nearly eighty-five percent (84.3%, Table 2-1) report an important connection between investment in transportation that is critical to the region's future and the reduction of road congestion in highly traveled areas.

Table 2-2

The Importance of Transportation Investments to the Future of the Region

By Assessment of Current Travel Situation

"Investments in transportation are critical to the region's future for..."	Current Travel Situation (Percentages)			
	Very Negative	Negative	Positive	Very Positive
Section 2A. Economic Development				
...growing businesses in the region.**				
Definitely Not Important	1.2	0.0	1.1	6.1
Probably Not Important	4.7	4.3	3.4	7.9
Probably Important	29.4	28.4	38.9	39.5
Definitely Important	64.7	67.3	56.6	46.5
...improving economic opportunity for everyone.***				
Definitely Not Important	1.2	0.0	0.0	4.4
Probably Not Important	2.4	1.8	4.0	7.9
Probably Important	17.6	17.2	31.6	35.1
Definitely Important	78.8	81.0	64.4	52.6
...attracting more people to live in the area.***				
Definitely Not Important	2.4	0.6	2.3	7.0
Probably Not Important	3.5	9.8	16.0	19.3
Probably Important	29.4	23.3	34.3	30.7
Definitely Important	64.7	66.3	47.4	43.0
...keeping our young people in the area.***				

Definitely Not Important	2.4	0.6	2.8	5.3
Probably Not Important	4.8	11.7	15.3	25.4
Probably Important	21.4	25.8	33.0	32.5
Definitely Important	71.4	62.0	48.9	36.8
Section 2B. Quality of Life				
...improving safety for everyone.***				
Definitely Not Important	1.2	0.0	0.6	3.5
Probably Not Important	1.2	6.8	1.1	7.0
Probably Important	21.2	23.0	32.8	32.5
Definitely Important	76.5	70.2	65.5	57.0

Significance: *p≤ .05   **p≤ .01   ***p≤ .001

The second item builds on the theme of transportation and the importance of mobility for quality of life in the region. Consistent with the previous mobility response, four-fifths (80.0%, Table 2-1) of the respondents report the importance of the connection between investment in transportation to the region's future by maintaining or reducing commute time.

The final item in this section examines transportation as a public safety concern. A surprisingly large percentage of respondents (94.7%, Table 2-1) consider investments in transportation that improve safety for everyone are critical to the region's future. Individuals that are particularly negative (97.7%, Table 2-2) about travel in the region are much more likely than those who are particularly positive (89.5%) to report a connection between the region's future and transportation that improves safety for everyone.

Section 3: Willingness to Use Transportation Alternatives

Given the strength of the driver-motor vehicle connection, there are legitimate questions about the willingness of the residents of South Central Kansas to embrace alternative forms of transportation. Clearly, the acceptance of alternate forms of transportation will take time and will depend on a number of unpredictable contextual issues. This section of the findings provides an initial reading of respondent predisposition towards transportation alternatives to the internal combustion motor vehicle.

The first item reported in Table 3-1 assesses respondent predisposition towards hybrid or electric vehicles. Propensity to accept hybrid or electric vehicles seems to vary based on a variety of concerns, but, more basically relates to resistance to change including those associated with shifts in power and wealth. In any case, more than three-quarters (78.0%, Table 3-1) of the respondents report that they would consider using an individually owned hybrid or electric vehicle. Much as expected, the youngest class of respondents (69.0%, Table 3-2), those younger than 25 years of age, are much more likely than those 65 years of age and older (43.4%) to report a willingness to consider a hybrid or electric vehicle. Interestingly, those who hold the most negative views of the current transportation situation (76.5%, Table 3-3) are only slightly more likely than those who are very positive (71.9%) to indicate a willingness to consider using an individually owned hybrid or electric vehicle.

The second item in Table 3-1 assesses predisposition towards driverless vehicles. Although a considerable investment in infrastructure will need to be made to support driverless vehicles many urban areas are making these investments in anticipation of positive returns-on-investment. Driverless vehicles potentially reduce the probability of vehicular accidents commonly associated with human error. In the future, lower insurance rates for driverless vehicles may make it cost prohibitive for many to drive their own vehicle. Conversely, the transition to driverless vehicles includes considerable resistance. Earlier findings reported that many people like driving and consequently, will be reluctant to relinquish control of their vehicle. Further, there are many unanswered questions about the cost of vehicle ownership in the case of driverless vehicles. In other words, it may make more sense to lease or use the services of some transportation related business to meet individualized travel needs. In any case, at this particular point in time slightly less than half (48.0%, Table 3-1) of the respondents indicate that they would consider using individually owned driverless vehicles. Respondents 65 years of age and older (43.4%, Table 3-2) and much less likely than those under 25 years of age (69.0%) to report that they would consider using individually owned driverless vehicles.

Transportation services such as those delivered via Uber, Lyft, etc. have been gaining in popularity for a number of years. In fact, in some urban areas, it economically makes more sense to not own a motor vehicle, if an individual can extinguish the psychological urge to drive. In any case, sixty-one percent (61.0%) (Table 3-1) of the respondents indicated that they would consider using vehicles operated by Uber, Lyft, or some other private agency. More than seventy percent (70.5%, Table 3-2) of the respondents between the ages of 25 and 35 years of age indicated a propensity to use vehicles operated by Uber, Lyft, or some other private agency.

Those who are especially negative about the current travel situation in the region (74.7%, Table 3-3) are much more likely that those who are particularly positive (50.1%) to report that they would consider using vehicles operated by Uber, Lyft, or some other private agency.

The findings reported in Table 3-1 indicate that slightly more than a third (36.4%) of the respondents indicate that they would consider using driver-less vehicles operated by Uber, Lyft, or some other private agency. Much as expected, respondents under 25 years of age (54.8%, Table 3-2) are much more likely than those 65 years of age and older (15.0%) to report that they would consider using driver-less vehicles operated by Uber, Lyft, or some other private agency. Those who are especially negative about the current travel situation in the region (41.5%, Table 3-3) are much more likely that those who are particularly positive (21.5%) to report that they would consider using driver-less vehicles operated by Uber, Lyft, or some other private agency.

In the past, the downtown region of Wichita was an important center for retail and office space. During these years, the central business district and the public bus system had a symbiotic relationship that benefited the broader region. As the population gradually moved to the suburbs and retail followed, both the downtown, and the public bus system that fed it, declined. Automobiles replaced the public bus system as a preferred mode of transportation. In response, the decline of the public bus system resulted in reduced coverage, frequency and consequently, ridership. Essentially, the bus system has become a de facto transportation system serving low-income residents. As a result, many questions remain about whether the public would once again find the public bus system an attractive transportation option. Three-quarters (74.7%, Table 3-1) of the respondents indicate that they would consider using a more comprehensive public bus system that is convenient with extended routes. Nearly all of the respondents who are especially negative about the current travel situation in the region (97.5%, Table 3-3) would consider using a revitalized bus system compared to half (50.0%) of those who are particularly positive about the current travel situation.

Building on the previous item, about half (51.8%, Table 3-1) of the respondents indicate that they would consider using a more comprehensive driverless public bus system that is convenient with extended routes. Respondents under the age of 25 (80.7%, Table 3-2) are particularly inclined to use a driver-less public bus system, while those 65 years of age and older (43.3%), are not as excited about driver-less buses. More than three-quarters (78.6%, Table 3-3) of the respondents who are very negative about the current travel situation in the region would consider using a driver-less public bus system while about a quarter (28.3%) of those who are very positive about the current travel situation are favorably predisposed to use such a system.

More than half (57.4%, Table 3-1) of the respondents report that they would consider using a park-and-ride system for commuting. Nearly sixty percent (59.6%, Table 3-3) of the respondents who are especially negative about the current travel situation in the region would consider using a park-and-ride system for commuting, while about a forty percent (40.7%) of those who are particularly positive about the current travel situation find such a system attractive.

Slightly less than half (49.0%, Table 3-1) of the respondents would consider using rented scooters or bike shares or other similar transportation. About half (50.6%, Table 3-3) of the respondents, who are especially negative about the current travel situation in the region, would consider using rented scooters or bike shares or other similar transportation. About two-fifths (38.1%) of those who are particularly positive about the current travel situation find these transportation options attractive.

Considerable investment has been made to construct and link biking or walking paths throughout the metropolitan area. Some of these are dedicated paths, while others involve lane-sharing. These paths are designed to be recreational as well as functional modes of transportation. Usage patterns of existing paths vary by time of year and associated weather patterns. More recently, these paths have become even more popular, for both individual and family use, to off-set the negative impact of being forced to stay at home and to shelter in place to prevent the spread of COVID-19. While there is considerable use of these paths, it's difficult to predict if this investment has both broad and intense support.

Table 3-1
Willingness to Use Transportation Alternatives

"I would consider using…."	Percentages			
	Definitely False	Probably False	Probably True	Definitely True
…individually owned hybrid or electric vehicles.	10.4	11.6	31.3	46.7
…individually owned driver-less vehicles.	27.7	24.2	24.0	24.2
…vehicles operated by Uber, Lyft, or some other	10.6	28.4	37.4	23.6
…driver-less vehicles operated by Uber, Lyft, or	36.2	27.5	22.9	13.5
...a more comprehensive public bus system that is	09.4	16.0	32.2	42.5
...a more comprehensive driver-less public bus system	26.6	21.7	28.3	23.5
...a park-and-ride system for commuting.	15.8	26.8	35.7	21.7
...rented scooters or bike shares or other similar	21.6	29.4	28.7	20.3
...an expanded system of walking or biking paths.	05.9	09.2	29.5	55.5

Range of N= 542-550

Eighty-five percent (85.0%, Table 3-1) of the respondents report that they would consider using an expanded system of walking or biking paths. More than half (55.5%) of the respondents registered what can be characterized as intense support. Individuals under the age of 25 (93.6%, Table 3-2) are particularly likely to indicate that they would consider using an expanded system of walking or biking paths, while those 65 years of age and older (79.7%,) are a little less likely to use these paths.

Table 3-2

Willingness to Use Transportation Alternatives by Age

(Percentages)	Age					
"I would consider using…."	1	2	3	4	5	6
…individually owned driver-less vehicles.***						
Definitely False	13.8	18.4	31.3	33.3	33.3	30.0
Probably False	17.2	19.7	24.2	25.3	33.3	26.7
Probably True	27.6	27.9	14.1	21.3	22.6	36.7
Definitely True	41.4	34.0	30.5	20.0	10.8	6.7
…vehicles operated by Uber, Lyft, or some other						
Definitely False	12.9	8.9	11.1	10.5	10.8	11.7
Probably False	41.9	20.5	25.4	30.3	32.3	38.3
Probably True	22.6	39.7	32.5	40.8	39.8	40.0
Definitely True	22.6	30.8	31.0	18.4	17.2	10.0
…driver-less vehicles operated by Uber, Lyft, or						
Definitely False	19.4	29.5	36.5	41.3	41.8	41.7
Probably False	25.8	23.3	23.8	26.7	31.9	43.3
Probably True	29.0	27.4	26.2	22.7	17.6	11.7
Definitely True	25.8	19.9	13.5	9.3	8.8	3.3
...a more comprehensive driver-less public bus system						
Definitely False	12.9	20.5	26.0	33.8	30.1	28.3
Probably False	6.5	19.9	20.5	25.7	26.9	28.3
Probably True	35.5	28.8	32.3	21.6	20.4	35.0
Definitely True	45.2	30.8	21.3	18.9	22.6	8.3
...an expanded system of walking or biking paths.**						
Definitely False	6.5	3.4	5.5	5.3	8.7	8.5
Probably False	0.0	6.8	7.9	11.8	13.0	11.9
Probably True	32.3	21.1	26.8	40.8	33.7	35.6
Definitely True	61.3	68.7	59.8	42.1	44.6	44.1

Age: 1=Below 25 2=25-35 3=36-45 4=46-55 5=56-64 6=65 & Above

Significance: *p≤ .05   **p≤ .01   ***p≤ .001

Table 3-3

| (Percentages) | Current Travel Situation | | | |
"I would consider using…."	Very Negative	Negative	Positive	Very Positive
…individually owned hybrid or electric vehicles.***				
Definitely False	14.1	4.3	11.	14.9
Probably False	9.4	8.0	15.	13.2
Probably True	31.8	25.9	27.	43.0
Definitely True	44.7	61.7	46.	28.9
…vehicles operated by Uber, Lyft, or some other private agency.***				
Definitely False	20.0	8.1	5.6	15.2
Probably False	15.3	28.6	30.	34.8
Probably True	36.5	34.8	43.	31.3
Definitely True	28.2	28.6	21.	18.8
…driver-less vehicles operated by Uber, Lyft, or some other private agency.**				
Definitely False	31.7	32.9	35.	46.4
Probably False	26.8	24.8	26.	32.1
Probably True	18.3	26.1	26.	17.0
Definitely True	23.2	16.1	12.	4.5
...a more comprehensive public bus system that is convenient with extended routes.***				
Definitely False	2.4	2.5	10.	24.1
Probably False	0.0	11.1	21.	25.9
Probably True	14.6	27.2	41.	33.9
Definitely True	82.9	59.3	26.	16.1
...a more comprehensive driver-less public bus system that is convenient with extended routes***				
Definitely False	15.5	16.7	32.	41.6
Probably False	6.0	21.6	22.	30.1
Probably True	28.6	30.9	32.	18.6
Definitely True	50.0	30.9	12.	9.7
...a park-and-ride system for commuting.***				
Definitely False	13.1	10.6	14.	29.2
Probably False	27.4	21.7	28.	30.1
Probably True	28.6	38.5	38.	30.1
Definitely True	31.0	29.2	18.	10.6
...rented scooters or bike shares or other similar transportation.*				
Definitely False	22.4	14.8	21.	31.9
Probably False	27.1	27.2	33.	30.1
Probably True	24.7	35.8	27.	20.4
Definitely True	25.9	22.2	17.	17.7
...an expanded system of walking or biking paths.***				
Definitely False	8.3	3.7	2.2	13.3
Probably False	7.1	6.2	11.	10.6
Probably True	15.5	22.4	35.	39.8
Definitely True	69.0	67.7	51.	36.3

Significance: *p≤ .05   **p≤ .01   ***p≤ .001

Section 4: Investment Recommendations

Metropolitan areas, throughout the United States, are investing in technology including infrastructure needed to support the development of advanced transportation systems that increase the mobility of residents. Respondents were asked to review the items reported in Table 4-1 and to make recommendations for investments based on what they feel is best for the quality of life and prosperity for this region. Using the term "investment" encourages the respondents to prioritize and to think about how best to use their tax dollars based on the wellbeing of the region.

The level of investment varies considerably from item to item. If citizens, and consequently public policy, assign value to a transition from internal combustion engines to hybrid or electric vehicles, considerable   infrastructure will need to be made. For example, investments will be needed to support charging   stations that maximize access and minimize time necessary to recharge private and commercial vehicles.   Consistent with this transition, three-quarters of the respondents (74.8%, Table 4-1) favor investment in   transportation infrastructure that supports individually owned hybrid or electric vehicles. Support for this   infrastructure investment did not vary statistically based on the age of the respondent.

Infrastructure investments necessary to support driverless vehicles are considerable and expensive. In many cases, streets and highways will require capital investments in addition to investments directly connected to driverless vehicles. All too often, local governments have been forced to delay investments in critical infrastructure shifting the burden to future generations. Communities that inordinately delay making infrastructure investment in support of driverless vehicles will become economically disadvantaged as they struggle to attract business and industry investment. Although it is clear that driver-less vehicles will become important modes of transportation, it is not clear whether the typical citizen recognizes what is a stake and the rapidly approaching timelines for making these investment decisions. The complexity of these decisions is magnified by the interdependence of technological investments.

Less than half (45.8%, Table 4-1) of the respondents support investment in transportation infrastructure necessary for individually owned driverless vehicles. Support for this type of investment is inversely related to the age of the respondent. Respondents less than 25 years age (63.3%, Table 4-1) are much more positive about investments in support of individually owned driver-less vehicles, compared to respondents 65 years of age and older (32.8%). Respondents who are especially negative about the current travel situation in the region (49.4%, Table 4-3) are more supportive of infrastructure investment that facilitate individually owned driverless vehicles compared to those who are particularly positive about the current travel situation (35.1%).

Less than half (48.4%, Table 4-1) of the respondents think the region should invest in transportation infrastructure that supports vehicles operated by Uber, Lyft, or some other private agency. An even smaller percentage (29.9%) of the respondents think we should invest in transportation infrastructure in support of driverless vehicles

operated by Uber, Lyft, or some other private agency. Individuals, 25 years of age and younger (40.0%, Table 4-2), are more supportive of investment in transportation to support driverless vehicles operated by Uber, Lyft, or some other private agency, compared to respondents 65 years of age and older (13.8%).

Ninety percent (90.0%, Table 4-1) of the respondents feel we should invest in transportation infrastructure that supports a more comprehensive public bus system, which is convenient with extended routes. There is no statistical difference in the support for a comprehensive bus system based on age. Almost all the respondents who are very negative about the current travel situation in the region (97.6%, Table 4-3) support infrastructure investment that facilitates a more comprehensive public bus system. Surprisingly, three-quarters (75.0%) of respondents who are very positive about the current travel situation support public bus system investment. Clearly, a more comprehensive bus system is a valued by survey respondents.

There is considerable support among survey respondents for the return of a more robust public bus system, but questions remain about the acceptance of driverless busses. More than half (56.8%, Table 4-1) of the respondents support a more comprehensive drive-less public bus system, which is convenient with extended routes. It is important to note that support varies considerably based on the age of the respondent. Nearly three-quarters (73.3%, Table 4-1) of the respondents under the age of 25 support investments necessary to for a comprehensive driverless public bus system, while about half (50.9%) of those 65 years of age and older hold similar values. Nearly three-quarters (73.8%, Table 4-1) of the respondents who are very negative about the current travel situation in the region (97.6%, Table 4-3) support infrastructure investment that facilitates a more comprehensive public bus system that is driverless. About a third (35.1%) of the respondents who are very positive about the current travel situation support investment in a driverless public bus system. In other words, a driverless system is not as popular, but still registered considerable support. One cannot help but wonder if the diminished support for the driverless bus system is a function of perceived danger of a vehicular accident or if their reticence is more about not having a driver on board to handle the many and varied experiences of riders of public busses?

"We should invest in transportation infrastructure that supports..."	Percentages			
	Definitely Do Not Invest	Probably Do Not Invest	Probably Invest	Definitely Invest
…individually owned hybrid or electric vehicles.	10.5	14.7	42.0	32.8
…individually owned driver-less vehicles.	25.0	29.2	30.0	15.8
…vehicles operated by Uber, Lyft, or some other private agency.	17.3	34.3	38.5	09.9
…driver-less vehicles operated by Uber, Lyft, or some other private agency.	32.5	37.5	21.6	08.3
...a more comprehensive public bus system that is convenient with extended routes.	03.7	06.3	29.5	60.5
...a more comprehensive driver-less public bus system that is convenient with extended routes.	21.4	21.9	30.8	26.0
...a park-and-ride system for commuting.	09.2	18.6	45.2	27.0
...rented scooters or bike shares or other similar transportation.	15.8	23.9	35.4	24.9
...an expanded system of walking or biking paths.	03.9	03.9	32.1	60.2

Range of N= 542-545

Table 4-2

Investment Recommendations for the Future of Transportation

by Age

"We should invest in transportation (Percentages) infrastructure that supports..."	Age					
	1	**2**	**3**	**4**	**5**	**6**
…individually owned driver-less vehicles.***						
Definitely Do Not Invest	16.7	16.3	24.2	34.2	34.1	25.9
Probably Do Not Invest	20.0	26.5	28.9	34.2	26.4	41.4
Probably Invest	30.0	35.4	26.6	22.4	29.7	32.8
Definitely Invest	33.3	21.8	20.3	9.2	9.9	0.0
…vehicles operated by Uber, Lyft, or some other private agency.**						
Definitely Do Not Invest	20.0	16.3	11.8	21.3	21.7	17.2
Probably Do Not Invest	43.3	35.4	29.1	41.3	25.0	44.8
Probably Invest	33.3	34.7	45.7	30.7	43.5	37.9
Definitely Invest	3.3	13.6	13.4	6.7	9.8	0.0
…driver-less vehicles operated by Uber, Lyft, or some other private agency.**						
Definitely Do Not Invest	20.0	28.8	22.8	46.1	44.0	31.0
Probably Do Not Invest	40.0	39.7	37.8	31.6	28.6	55.2
Probably Invest	30.0	20.5	28.3	17.1	20.9	12.1
Definitely Invest	10.0	11.0	11.0	5.3	6.6	1.7
...a more comprehensive driver-less public bus system that is convenient with extended routes.*						
Definitely Do Not Invest	10.0	14.3	21.4	28.9	27.5	25.4
Probably Do Not Invest	16.7	22.4	18.3	25.0	23.1	23.7
Probably Invest	33.3	29.9	35.7	23.7	23.1	40.7
Definitely Invest	40.0	33.3	24.6	22.4	26.4	10.2
...an expanded system of walking or biking paths.***						
Definitely Do Not Invest	3.3	3.4	2.4	5.3	6.5	1.7
Probably Do Not Invest	3.3	2.1	6.3	3.9	4.3	3.3
Probably Invest	16.7	20.5	27.6	46.1	38.0	48.3
Definitely Invest	76.7	74.0	63.8	44.7	51.1	46.7

Age: 1=Below 25 2=25-35 3=36-45 4=46-55 5=56-64 6=65 & Above

Significance: *p≤ .05   **p≤ .01   ***p≤ .001   N=528-531

Table 4-3
Investment Recommendations for the Future of Transportation
by Current Travel Situation

"We should invest in transportation infrastructure that supports..."	Current Travel Situation (Percentages)			
	Very Negative	Negative	Positive	Very Positive
…individually owned hybrid or electric vehicles.**				
Definitely Do Not Invest	10.6	7.4	9.7	17.0
Probably Do Not Invest	14.1	18.4	10.8	16.1
Probably Invest	42.4	33.7	45.5	47.3
Definitely Invest	32.9	40.5	34.1	19.6
…individually owned driver-less vehicles.*				
Definitely Do Not Invest	15.3	22.1	26.6	35.1
Probably Do Not Invest	35.3	31.3	23.2	29.7
Probably Invest	28.2	32.5	32.2	24.3
Definitely Invest	21.2	14.1	18.1	10.8
...a more comprehensive public bus system that is convenient with extended routes.***				
Definitely Do Not Invest	2.4	1.2	2.3	10.7
Probably Do Not Invest	0.0	1.8	8.5	14.3
Probably Invest	11.0	14.1	39.5	47.3
Definitely Invest	86.6	82.8	49.7	27.7
...a more comprehensive driver-less public bus system that is convenient with extended routes.***				
Definitely Do Not Invest	10.7	14.7	26.0	33.3
Probably Do Not Invest	15.5	19.6	20.9	31.5
Probably Invest	27.4	31.9	33.3	24.3
Definitely Invest	46.4	33.7	19.8	10.8
...a park-and-ride system for commuting.***				
Definitely Do Not Invest	8.2	5.5	7.9	18.0
Probably Do Not Invest	17.6	14.1	19.2	25.2
Probably Invest	38.8	42.3	48.6	46.8
Definitely Invest	35.3	38.0	24.3	9.9
...rented scooters or bike shares or other similar transportation.**				
Definitely Do Not Invest	17.6	10.4	11.4	30.4
Probably Do Not Invest	25.9	19.6	29.7	20.5
Probably Invest	30.6	36.2	38.9	30.4
Definitely Invest	25.9	33.7	20.0	18.8
...an expanded system of walking or biking paths.***				
Definitely Do Not Invest	7.1	1.2	0.6	10.7
Probably Do Not Invest	3.5	2.5	4.5	5.4
Probably Invest	21.2	22.2	39.9	41.1
Definitely Invest	68.2	74.1	55.1	42.9

Significance: *p≤ .05   **p≤ .01   ***p≤ .001

Table 4-1 indicates considerable support (72.2%) for infrastructure investments that support a park-and-ride system for commuting. Respondents who are very negative about the current travel situation in the region (74.1%, Table 4-3) are more supportive of infrastructure investment that facilitates a park-and-ride system compared to those who are particularly positive about the current travel situation (56.7%).

About two-thirds (60.3%, Table 4-1) of the respondents support investments that facilitate the use of rented scooters or bike shares or other similar transportation.

Earlier discussion indicated support for investment in biking and walking paths. The last items in Table 4-1 (92.3%) indicates ongoing support on the part of respondents for investment in transportation infrastructure in the form of the expansion of walking or biking paths.

Conclusion and Recommendations

The intent of this research was to explore transportation issues of the future, as well as gather the public's input on implications, anticipated issues and the overall impact for transportation needs in the future. Although it is clear driverless vehicles will become important modes of transportation, it is not clear whether the typical citizen recognizes what is at stake and the rapidly approaching timelines for making these investment decisions. Before individuals will part with motor vehicles and accept alternative modes of transportation, the impetus for change will need to be momentous and will probably include a convergence of forces. As the region moves forward, social and economic inclusion depends in no small part on the creation of transportation options for everyone. Communities that inordinately delay making infrastructure investment in support of driverless vehicles will become economically disadvantaged as they struggle to attract business and industry investment. This research identified several recommendations as presented below.

5G Technology

An expanded, reliable 5G network is the backbone of technological investments in the transportation system. While the focus groups were skeptical on some technologies like autonomous vehicles, drones and surveillance cameras, there was overall support for incremental investments in technology.

Improved user experience and increased efficiency were primary drivers for technology adoption among those surveyed. Changes that were practical for a public who are largely car dependent were supported (e.g. sensor and traffic light updates, electric vehicle infrastructure, ridesharing infrastructure, 5G implementation).

5G Future Considerations: foster robust regional discussion and creative ideation for future transportation technologies that build on these findings.

Transit

There is public support for the development of transportation infrastructure that includes a more comprehensive public transit system that is convenient with extended routes. While driverless bus systems were not as popular, they still registered a considerable number of supporters. Suggestions for future investments were consistent across groups and included enhancing transit service with additional technological capabilities, expanding routes and reliable options.

Transit Future Considerations: While WAMPO does not directly provided transit service, they could facilitate more conversations with decision makers to make incremental improvements in transit across the region. Considerations like infrastructure investments for a park-and-ride system for commuters is supported.

Equity

All the focus groups and most survey respondents expressed the need to address issues of equity and access to transportation networks. There was a clear consensus across the focus groups in support of public transit. Overlapping issues of equity were predominate in the discussion with issues of affordability, stigma, accessibility of the differently-abled community, and safety topping the list.

Equity Considerations: future considerations of transportation system equity include the need for increased safety, public education, suburban access to transit, and regional investments in the public transit system.

Vehicle Infrastructure

The research shows that communities that inordinately delay making infrastructure investment in support of driverless vehicles will become economically disadvantaged as they struggle to attract business and industry investment. Respondents showed strong support for individually owned hybrid or electric vehicles and focus groups expressed interest in environmentally friendly policies, such as increasing the use of electric buses. There was little public support for autonomous vehicles, which may be based on unanswered questions about cost and safety.

Vehicle Infrastructure Considerations: Foster robust regional discussion and creative ideation for future transportation technologies that build on the research and findings. Considerations of increased investment in infrastructure to support autonomous vehicles will be necessary to stay competitive in attracting business and economic investment. Additional considerations of increased investment in transportation infrastructure that supports hybrid or electric vehicles is recommended.

Bicycle & Pedestrian

There was considerable support for expansions in the regional bicycle and pedestrian facilities. While some modes like bike and scooter rentals were supported but viewed as primarily recreational, active transportation investment and expansion were considered important components of quality of life, equity, and the economy. Safety of bike lanes and connecting existing pathways was a key priority. Suggestions included implementing a public information campaign, interactive signage at fixed stops on pathways and providing signage and information on how to safely transition between bus, pedestrian, motorized scooters or bike traffic.

Bicycle/Pedestrian Considerations: WAMPO should encourage continued efforts to develop, expand and enhance the bicycle and pedestrian infrastructure, as well as informational signage for users of the system.

As technological changes are implemented, or advocated for by WAMPO, extensive public education and community engagement campaigns will be helpful in creating buy-in and support for groundbreaking changes such as autonomous vehicles.