



Appendix: Chapter 6- Transportation Demand Management (TDM)

What is a Transportation Demand Management Strategy and why is it needed?

Transportation Demand Management (TDM) is the application of strategies and policies to encourage the use of sustainable modes within a transportation network. A TDM Strategy is a plan for a region, city, neighborhood or site that seeks to deliver sustainable transportation objectives. It is articulated in a document that is regularly reviewed by the implementing organization, usually on an annual basis. It involves identifying an appropriate package of measures aimed at promoting sustainable travel and mitigating climate change impacts of transportation, such as greenhouse gases (GHG) and decarbonization, with an emphasis on reducing SOV trips, congestion, Vehicle Miles Traveled (VMT), and parking demand. It can also assist in meeting other objectives such as increasing the accessibility of different transportation options, improving access to economic options, improving health and safety, attracting, and retaining staff.

The TDM Strategy will support the implementation of the CMP and the 2050 LRMTTP by enabling residents, employees, and visitors to make sustainable transportation choices given the suite of available options. The effective implementation of TDM strategies aims to reduce congestion in the focus areas of San Juan and Aguadilla TMAs, but also on the Island as a whole. In addition, it aims to reduce the demand for parking and will align with the Island's environmental goals of encouraging sustainable modes of transportation. It should be reviewed on an annual basis separate from the LRTP to ensure that adjustments can be made to the TDM Strategy if goals are not being met, this will assist in the entire LRTP meeting its goals.

TDM Goals

Given the opportunities, the main goals of the TDM Strategy are:

- **Congestion Management:** Reduce demand for parking and congestion on major highways, and urban areas by promoting alternative modes of transportation and off-peak travel, particularly in the San Juan and Aguadilla Transportation Management Areas.
- **Promotion of Travel Options:** Identify innovative and cost-effective solutions that encourage mode shift from single-occupant vehicles to more sustainable options.
- **Environmental Stewardship:** Reduce VMT and GHG emissions in Puerto Rico by supporting sustainable modes of transportation.
- **Collaboration:** Leverage and support other regional and local initiatives related to public health, active transportation, sustainability, climate change, and smart growth.

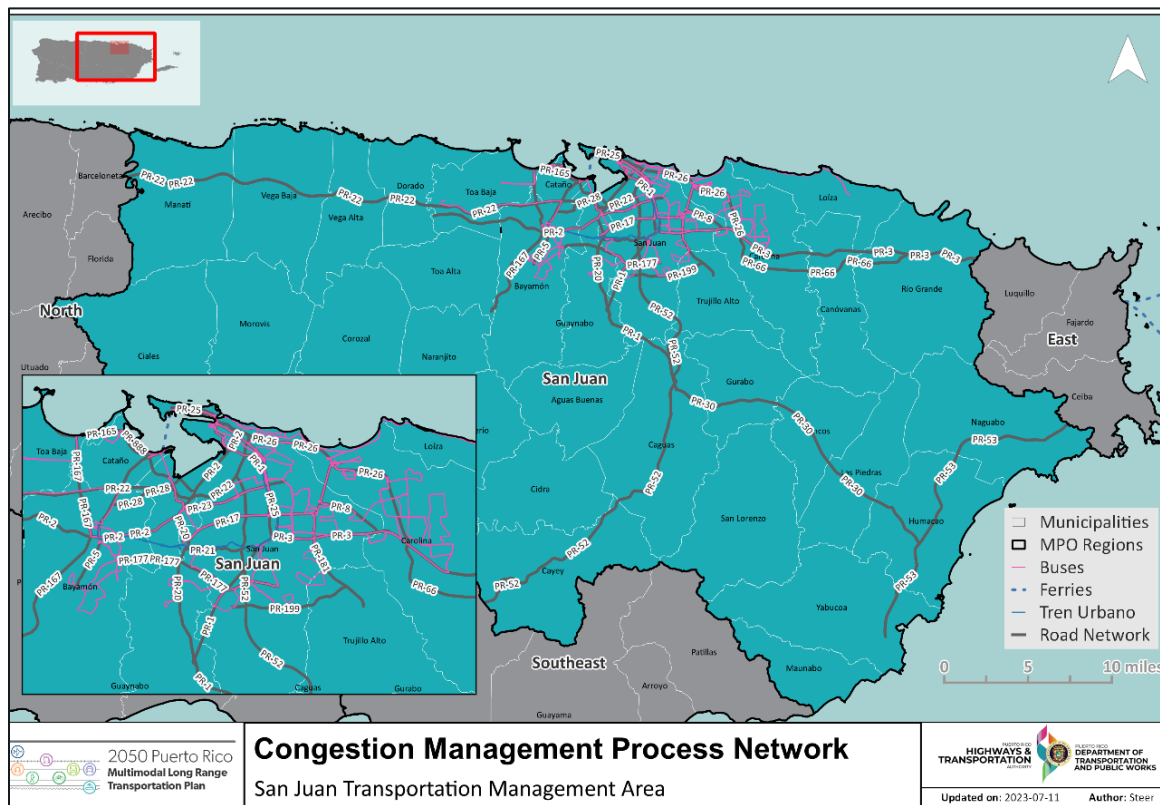
Existing Conditions and Opportunities

This section will provide an overview of the existing conditions in Puerto Rico with respect to TDM, with emphasis on the San Juan and Aguadilla regions due to these areas being densely populated. These regions can be used as pilot areas to test out potential TDM programs that can be expanded to the rest of Puerto Rico. It will include a brief overview of the areas of high congestion, current mode share, and a brief review of existing policies and programs that support TDM.

Congestion Problems and Needs

The San Juan region is the largest region of Puerto Rico with over one-third of the landmass and over 60% of the Island’s population. It is also home to most of the Island’s employers, containing over 60% of Puerto Rico’s formal and informal sectors, making it the major commuter hub of the Island⁴. Being that it is the most populated area of the Island, it is the most developed in terms of transportation infrastructure, with the most complex road systems including highways, principal arterial roads, and toll roads-Figure 0-1. In addition, public transit in the area is also the most developed, albeit severely underutilized, with a combination of rail and bus networks.

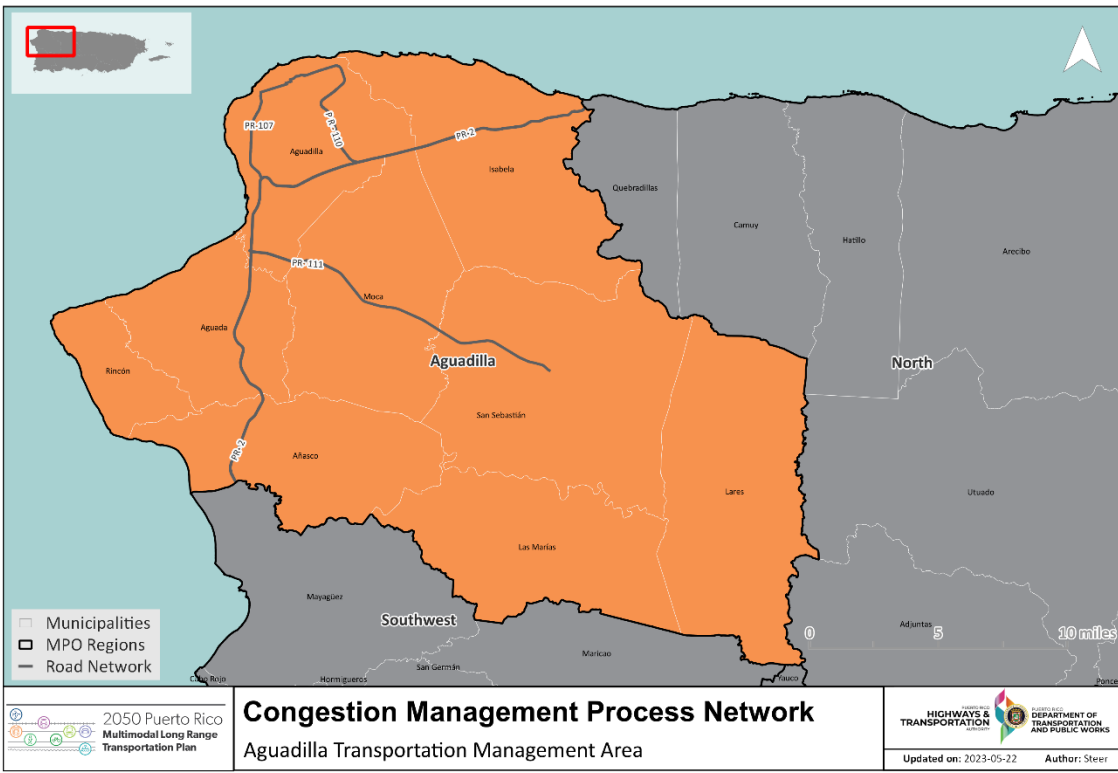
Figure 0-1: San Juan Region Transit and Road Network



The Aguadilla region is the 4th largest region in Puerto Rico, with over 8% of the Island’s total population and just over 8% of the employment of the Island, making it the third largest employment region on the Island behind San Juan TMA and the South Regions. Even though the amalgamated South Regions have a higher population than the Aguadilla Region, they do not require a CMP as their individual municipal populations are below 200,000. Unlike San Juan Region, Aguadilla does not have a transit system, further compounding the congestion problem, giving residents and commuters less options to switch commuting modes-Figure 0-2.

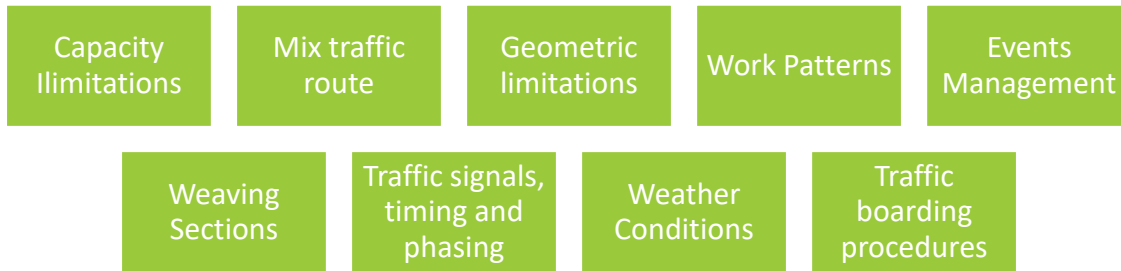
⁴ [2045 Other Urbanized Areas Long Range Multimodal Transportation Plan \(pr.gov\)](https://pr.gov)

Figure 0-2: Aguadilla Region Road Network



Due to these regions being major population centers, they have congestion related challenges. As noted within the CMP, the major causes of congestion in Puerto Rico are listed in Figure 0-3.

Figure 0-3: Causes of Congestion



Source: Steer, 2023

Existing Mode Share

Mode share is the percentage of travelers or number of trips using a particular type of transportation type. The mode share in Puerto Rico is heavily car-centric, with over 80% of the commuting population driving alone to work, followed by Work from Home and Carpooling at 7.4% and 6.3% respectively⁵. The average commute time to work on the Island is 27.1 minutes, and data indicates that about 3.5% of the workforce in Puerto Rico have commutes in excess of 90 minutes⁶.

Mode Share by Geography⁷

Table 0-1 lists mode share in the San Juan and Aguadilla regions. Both regions have high Drive Alone rates consistent with data that show high rates of congestion. Amongst both regions, carpooling has the second highest mode share percentage, suggesting that there are opportunities to further promote carpooling as an alternative transportation mode. Public transit mode share is low across both regions with rates of 1% or lower, the low public transit mode share presents an opportunity to improve and promote public transit on the Island to ease congestion.

Table 0-1: Mode Share

Mode	San Juan Region	Aguadilla Region	Puerto Rico
Drive alone	79.6%	83.2%	81.7%
Carpool	6.9%	8.5%	6.3%
Public Transit	1%	0.4%	0.8%
Bicycle	0.1%	0.4%	0.1%
Walk	2.7%	3%	2.5%
Work from Home	8.1%	3.7%	7.4%
Other	1.6%	0.7%	1.3%

Source: Steer, 2023

Existing Policies

2045 Puerto Rico Multimodal Transportation Plan⁸

The 2045 Long Range Multimodal Transportation Plan (LRMTP) is an update that builds upon recommendations and strategies developed in the 2040 LRTP. The 2040 LRTP largely focused on capital plans and projects, environmental justice and performance-based planning and programming. In addition to these strategies, the 2045 LRTP set out to emphasize non-motorized modes, complete streets, freight mobility, livability, and resilient infrastructure. The plan identified a number of TDM strategies such as telework programs, transit-oriented development and parking management that were integral to the Congestion Management Process (CMP).

⁵ [Puerto Rico - Profile data - Census Reporter](#)

⁶ [Puerto Rico | Data USA](#)

⁷ [Census Reporter: Making Census Data Easy to Use](#)

⁸ [2045 Other Urbanized Areas Long Range Multimodal Transportation Plan \(pr.gov\)](#)

There are opportunities to expand on the TDM strategies identified in the 2045 LRTP, particularly in the area of TDM policies and regulations, hybrid and telework programs.

Comprehensive Bicycle and Pedestrian Plan for Puerto Rico 2018⁹

The bicycle and pedestrian plan set out to promote and increase cycling and walking in Puerto Rico. The plan was developed through analysis of existing conditions, census, municipal survey, and open houses. The objectives of the plan were to:

Integrate cycling and pedestrian networks into the development of urban centers,
Incorporate the development of projects and bicycle/pedestrian facilities into Transportation Plans,
Improve bike and pedestrian infrastructure and accessibility for all road users, and
Develop education programs for all road users.

The availability of a comprehensive bike and pedestrian plan provides opportunities to integrate TDM strategies into bike and pedestrian planning. This provides more opportunities for residents and commuters to access first/last mile transportation solutions such as safe and secure bike parking facilities.

Complete Streets¹⁰

The Complete Streets Guideline developed for the Puerto Rico Department of Transportation and Public Works (DTPW) and the Highway Transportation Authority (PRHTA) in 2018 focused on three main objectives:

- Guide state and local governments to improve access and mobility through the development of new transportation facilities, thereby improving quality of life for communities,
- Improve pedestrian and bicycle access to public transportation services and public spaces, and
- Provide safe and affordable access for all people of all ages and abilities.

Best Practices and Mobility Insights

This section provides an overview of TDM best practices from various jurisdictions with similar governmental structure, cultural identity and congestion problems to Puerto Rico, and provides mobility insights from stakeholder engagement processes. These best practices case studies will provide an insight into how best TDM can be developed in Puerto Rico and lessons learnt while implementing TDM. In addition, mobility insights will provide additional contexts for which TDM strategies might be most applicable to Puerto Rico through the analysis of the behavioral and travel survey that was part of the stakeholder engagement process.

⁹ [Bike-and-Ped-OCT262018-Final.pdf \(pr.gov\)](#)

¹⁰ [PR-Complete-Streets-Plan-and-Design-Guidelines-Final.pdf](#)

Best Practices Insight

San Diego Association of Governments¹¹

The San Diego Association of Governments (SANDAG) is a Metropolitan Planning Organization (MPO) and acts as a council of governments. SANDAG oversees transportation related issues in the San Diego area that has a population of over 3 million, and battles congestion and air quality related problems. As a region, SANDAG implements the Sustainable Transportation Services program which includes several initiatives, including:

- **Employer Commuter Program:** The provision of customized benefits programs that include benefits such as transit pass discounts, telework assistance, bike education classes and sustainable transportation awards recognition.
- **Guaranteed Ride Home:** Reimbursement program for commuters who regularly commute using a sustainable transportation mode in case of unexpected emergencies.
- **Vanpool:** A convenient way for groups of five or more to get to work.
- **E-Bike Incentive Pilot:** Incentive program for e-bikes to make it easier for people throughout their communities.
- **Park & Rides:** Located throughout the region, Park & Ride lots are free and a great place to meet your carpool or vanpool. Some lots also offer bike lockers or access to transit.
- **Transit Youth Opportunity Pass:** Anyone 18 and under can now ride transit for free.

The Commuter Program currently has over 190 active employers involved in the program on a voluntary basis. Participants have been able to reduce their greenhouse gas emissions from cars approximately 6 times faster than the regional average.

TDM Policies and Strategies in Latin America¹²

This study looked at the implementation of TDM in 12 cities across 5 countries in Latin America (Argentina, Brazil, Chile, Colombia and Mexico). TDM in these cities has been largely used to complement parking policies, reduce traffic congestion, and improve access to economic opportunities. The causes of traffic congestion in these cities include access to cheap gasoline through fuel subsidies, large parking areas and the prioritization of single occupancy vehicles. TDM policies that have been implemented to combat congestion challenges on a regional level include:

- **License Plate Restrictions and Congestion Charges:** Several studies have shown that this can reduce traffic levels by up to 35%¹³
- **Parking Pricing:** This disincentivizes driving and encourages people to use alternative modes if parking is priced at market rates and higher/same price as public transportation.
- **Car-free day:** An event that promotes the use of public transportation and sustainable mobility, such as cycling or walking. The Day also seeks to raise awareness of the negative effects of the excessive use of vehicles.

However, the study notes that there are opportunities to engage private businesses and the private sector in the implementation of TDM through the integration of developers and builders in land-use and

¹¹ [SANDAG - Sustainable Transportation Services](#)

¹² [Practical Guidebook- Parking and Travel Demand Management Policies in Latin America.pdf \(wpcengine.com\)](#)

¹³ [A dozen effective interventions to reduce car use in European cities: Lessons learned from a meta-analysis and transition management - ScienceDirect](#)

parking policies development. Furthermore, there are opportunities to collaborate with the private sector on the development of commuter programs.

Greater Toronto and Hamilton Area (GTHA)

The GTHA is the most populated region in Canada with almost 7 million people. The region is made up of six regional municipalities and is home to much of Canada's economic opportunities. It is connected through a series of highways-427, 403, 401 and Queen Elizabeth Way and is served by various local municipal transit agencies as well as the regional transit agency GO Transit, which provides Bus and commuter rail services between municipalities.

Congestion is a major challenge for the region, particularly on the highways between municipalities. To combat congestion and to further integrate economic opportunities, the region has developed a number of TDM programs and policies such as:

- **Smart Commute**¹⁴: This is a community-based travel program across the GTHA that provides commuter services to employers such as carpool ride matching, first/mile last shuttle services, vanpool services and guaranteed ride home programs. The program has over 345 active employers participating and is working towards reducing traffic and improving air quality in the region. In turn it has a positive impact on economic opportunities as over 70% of employees involved in the program state that their commute experience directly impacts their overall job satisfaction.
- **TDM Guidelines for developers**: Some municipalities in the region have implemented TDM guidelines for residential and commercial developments. These guidelines provide details of measures that encourage mode shift to sustainable transportation that can help reduce congestion and improve quality of life^{15,16}.

Mobility Insights (Behavioral Survey & Data Collection)

Mobility Insights data were derived through an Island-wide behavior survey and desktop research such as Census Reporter, and previous LRTPs. The behavior survey was used to gain insight into why people make the commute choices that they do and how best to motivate individuals to change their travel patterns. Additionally, it was used to provide context to data from desktop research, particularly for students and retirees as there is limited information on their commute patterns. It should however be noted that the survey is not a true statistical representation of the Island due to the low response rate.

Survey Process

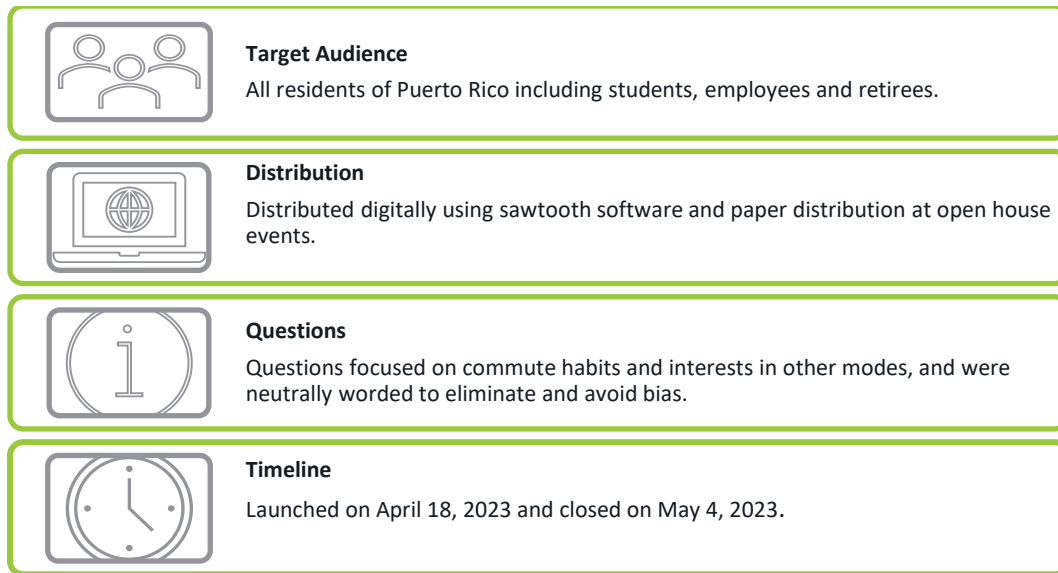
Figure 0-1 explains the survey process, including who the survey was sent to, how it was distributed, and the timeline for completing it.

¹⁴ [Smart Commute](#)

¹⁵ [Transportation Demand Management Guideline | City of Vaughan](#)

¹⁶ [pedpolicies-transit-demand-mgmt-guidelines.pdf \(hamilton.ca\)](#)

Figure 0-1: Survey Process



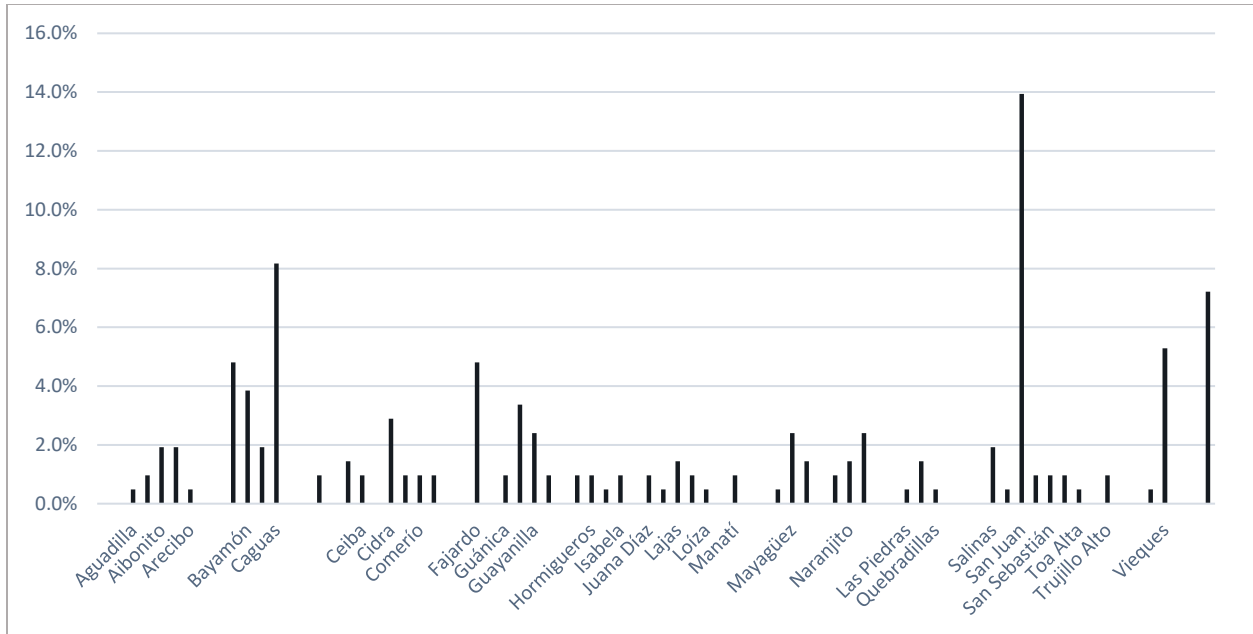
The survey received a total of 208 responses, with the most responses coming from employees, followed by students and retirees. To account for demographic and geographic differences across each respondent group, the survey responses were sorted by demography and geography, and analyzed separately as well as cumulatively to give overall picture of commuting patterns in Puerto Rico.

Analysis

Demographic Trends and Geography

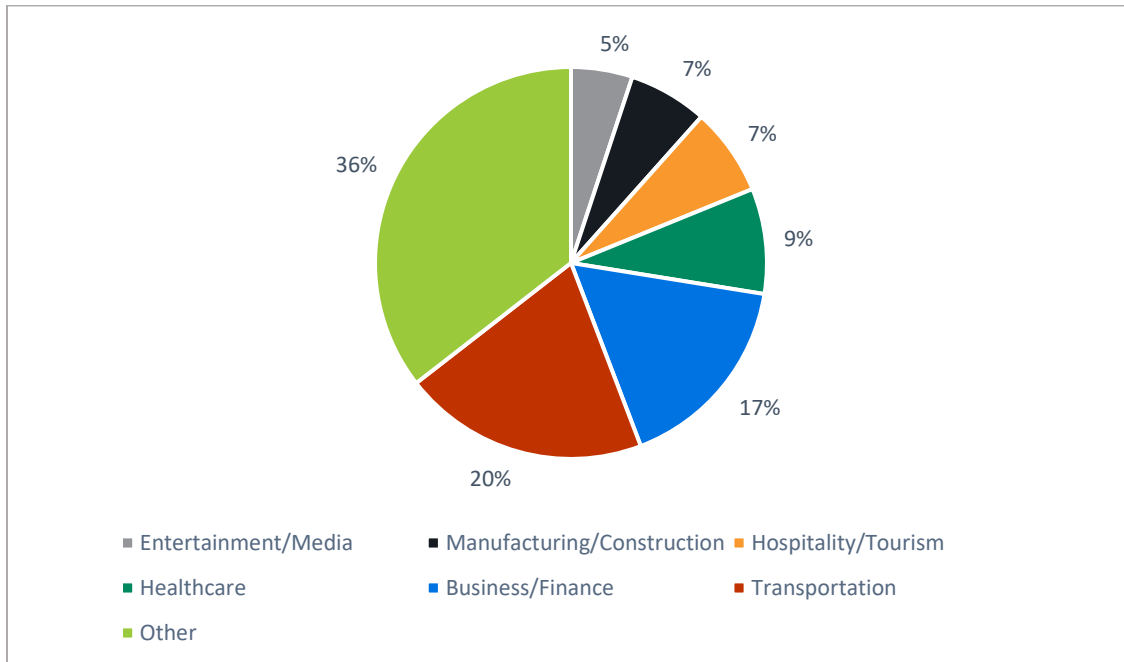
In terms of geography, most responses from the survey came from respondents within the San Juan TMA; San Juan, Caguas, and Yauco-Figure 0-2. 69% of respondents indicated that they are employed full-time, 17% are retired, 10% are unemployed, and 4% are students. Figure 0-3 shows a split between the industries from which the employed respondents work.

Figure 0-2: Location of Respondents



Source: Steer, 2023

Figure 0-3: Employment Industry



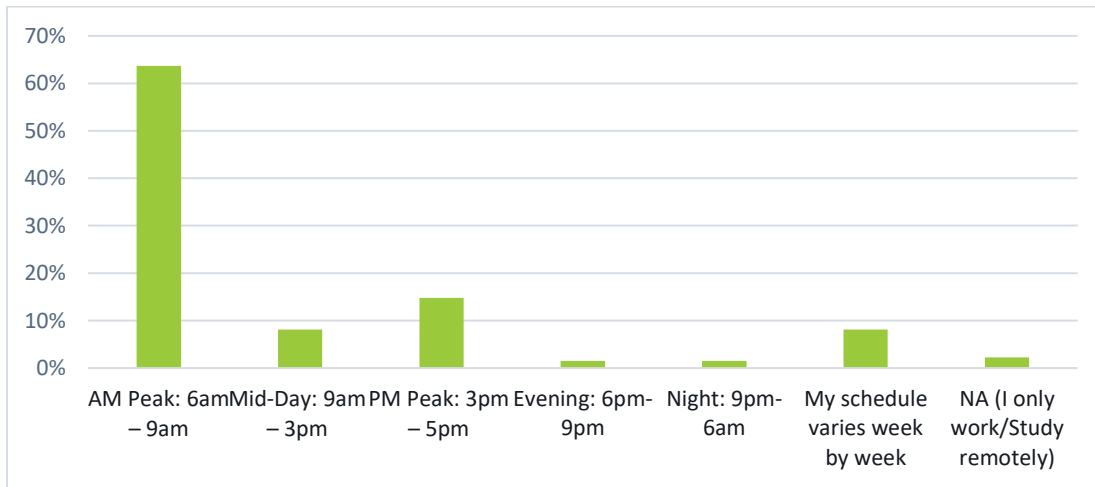
Source: Steer, 2023

Twenty percent (20%) of employees that responded to the survey work in transportation, the most popular response from the survey was “other” at 36%. Of those that responded “other,” the most popular responses were government, education and customer service.

Commute Patterns

Eighty-seven percent (87%) of employees who responded to the survey indicated that they work fully in-person, while 6% work on a hybrid schedule, and 4% are fully remote. Finally, 2% indicated that they currently work remotely, but are planning to work in-person in the future. As shown in Figure 0-4, 64% of respondent employees commute between 6-9am, during the AM rush-hour peak, and the second most popular commute time is between 3-5pm during the PM rush-hour peak.

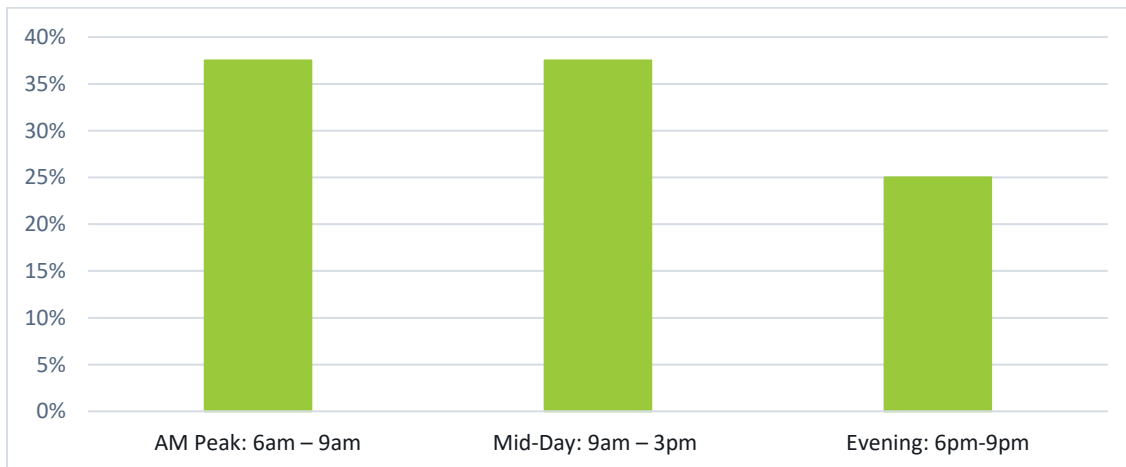
Figure 0-4: Employee Commute Times



Source: Steer, 2023

According to the survey responses, 75% of respondent students indicated that they study in person, while the other 25% indicated that they are hybrid. Figure 0-5 provides a breakdown of students' commute times, the commuting times for students slightly differ from the employed, suggesting that they have shorter "working hours." They typically commute during the AM Peak and Mid-Day.

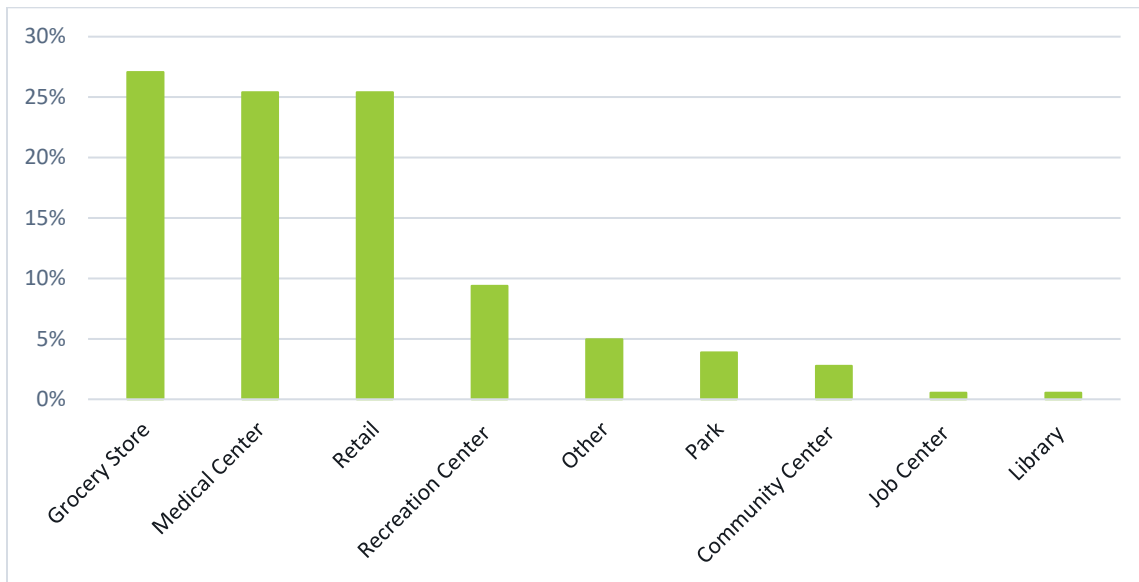
Figure 0-5: Student Commute Times



Source: Steer, 2023

For the retired and unemployed, they have very varied travel times. Their top travel destinations were to grocery stores, medical centers and retail centers. Other destinations included church, dropping kids at school and visiting family shown in -Figure 0-6. This presents an opportunity to promote and provide alternative transportation solutions in the form of shuttles, carpooling and transit to these highly frequented locations particularly for retired residents.

Figure 0-6: Retired and Unemployed Travel Destinations

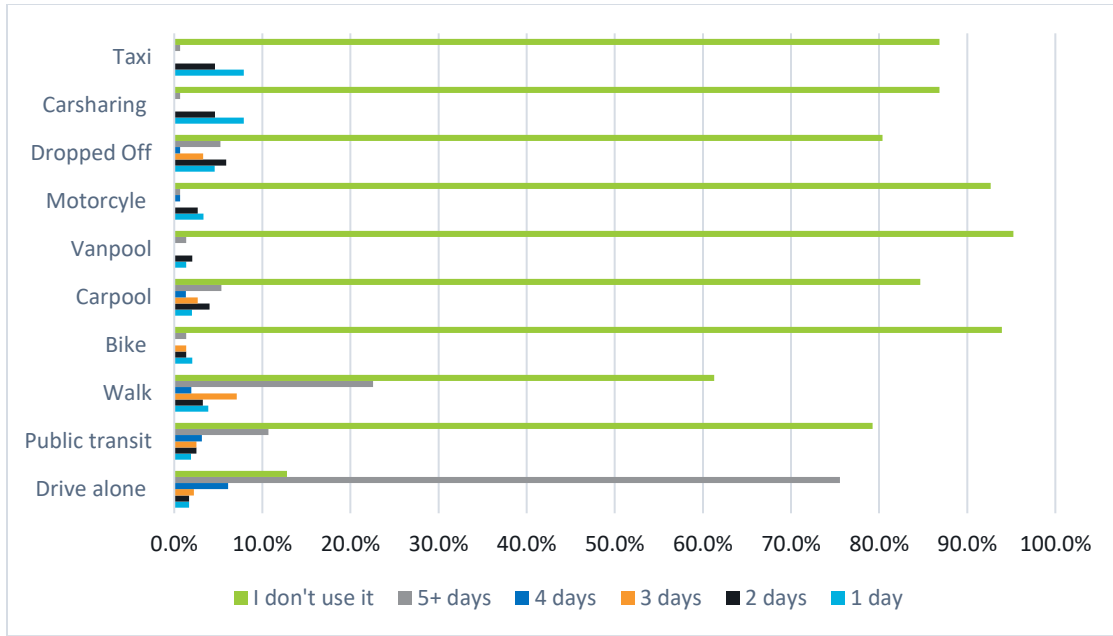


Source: Steer, 2023

Perceptions on Commute Experience

As shown in Figure 0-7, 76% of survey respondents drive alone 5+ days a week. The second most popular commute choice over a 5-day period is walk at 23%, followed by public transit at 11%.

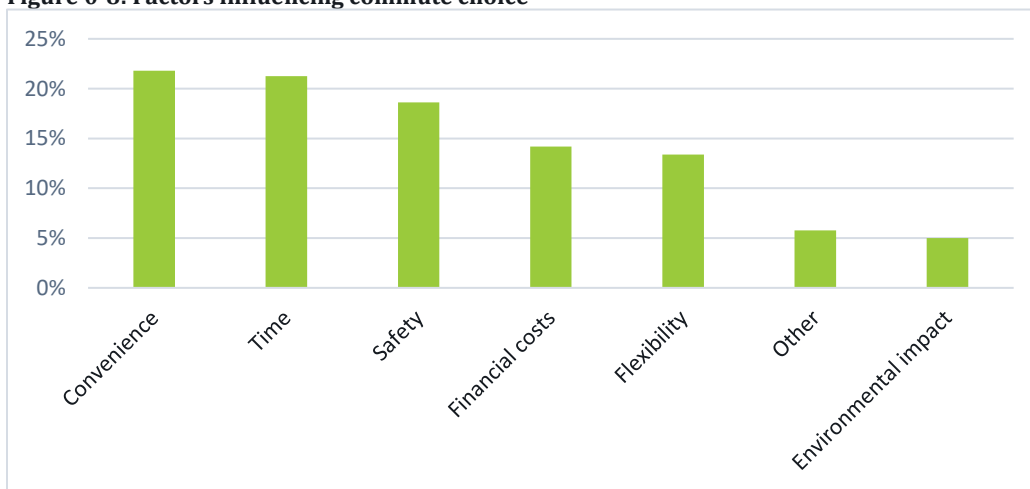
Figure 0-7: Commute Mode



Source: Steer, 2023

Figure 0-8 shows the top factors affecting commute choice. Convenience at 22% was rated the top factor followed by Time at 21%. To encourage residents and commuters to change their commute, there has to be an emphasis on efficient and effective transportation options. The lowest priority factor was environmental impact with only 5% of respondents choosing that option. For respondents that selected “Other,” responses were accessibility, distraction, and quality of service.

Figure 0-8: Factors influencing commute choice



Source: Steer, 2023

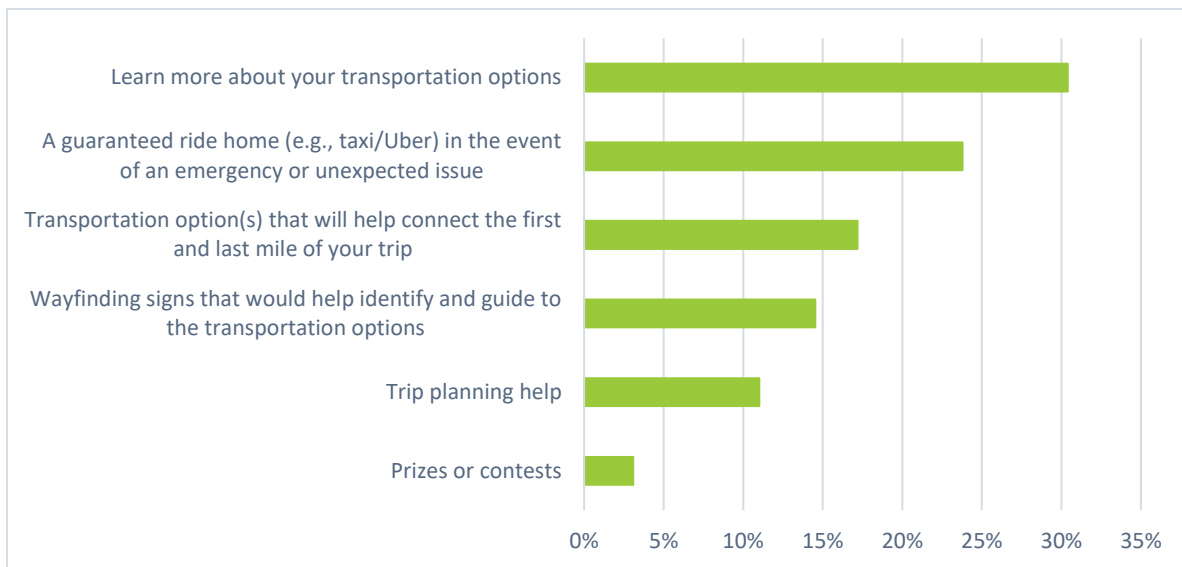
Willingness to Try Alternative Transportation Options

The survey results showed there is a general interest in alternative transportation options; however, the interest is dependent on awareness, education and improved efficiency of transportation systems (supporting the importance of convenience and time in travel choices), particularly for those outside of San Juan. According to survey results, more public transportation is needed as well as an increase in transportation routes and frequency as well.

“Collective transportation is inaccessible to people outside of San Juan. Many people outside the Metro Area need options to get to the Metro Area in an easier way.”-respondent comment.

Displayed in Figure 0-9, respondents indicated that they will be more willing to take alternative transportation options in general, if there were educational awareness about commute options available to them, guaranteed ride home and connections to first/last mile options. Other responses included the provision of wayfinding, trip planning and contests and promotions.

Figure 0-9: Willingness to Try Transportation Options



Source: Steer, 2023

Throughout the survey, particularly through the comments section, respondents stressed that inadequate public transportation amenities were a major challenge to them exploring alternative transportation modes, they also indicated safety concerns, lack of bike infrastructure and commute times being too long as some of the reasons they choose to drive.

“It is urgent and imperative to increase public transportation routes, improve their frequency of passage, provide real-time information on schedules, and improve street safety.”- respondent comment.

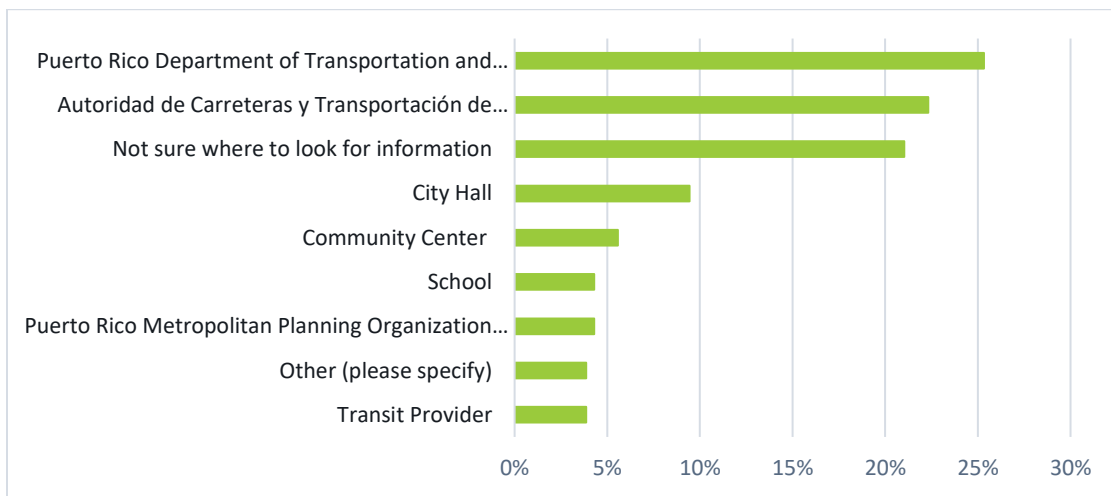
Familiarity with Puerto Rico's Transportation Programs

Survey results suggest that most respondents get their transportation information from Puerto Rico Department of Public Works and Puerto Rico Highway Authority (PRHTA). However, survey results also show that some (21%) respondents do not know where to look for this information, as shown in-

Figure 0-10. This further emphasizes the need to provide more educational and awareness programs on transportation options available to residents and commuters. In addition, 39% of survey respondents indicated they are not aware of any transportation benefits program being offered by the State, which demonstrates a lack of awareness towards transportation options-Figure 0-11. Of the transportation benefits program that respondents were aware of, free parking was the most popular, followed by transit subsidy.

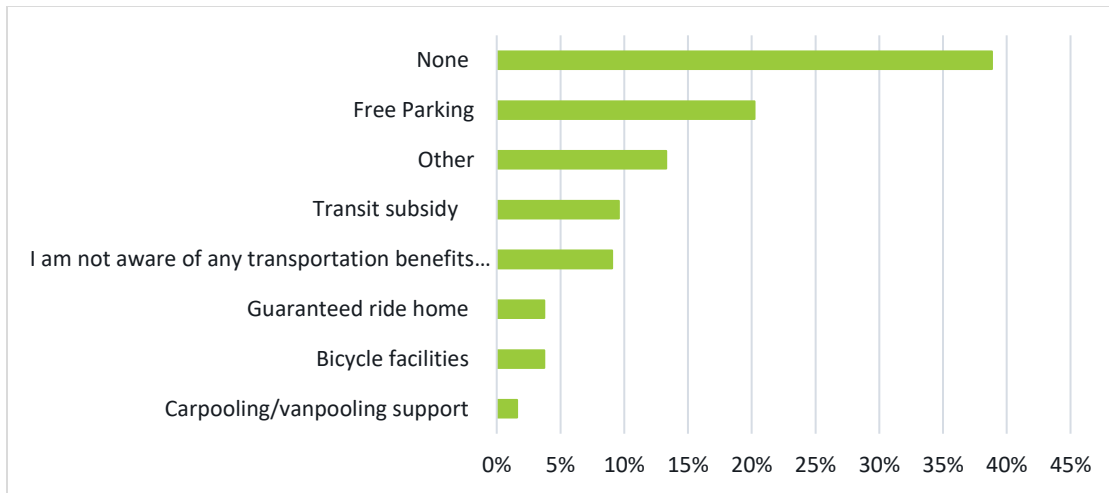
“More publicity should be given in traditional methods as well as in social networks.”-respondent comment

Figure 0-10: Transportation Information Provider



Source: Steer, 2023

Figure 0-11: Awareness of Transportation Benefits



Source: Steer, 2023

Potential TDM Strategies Recommendations

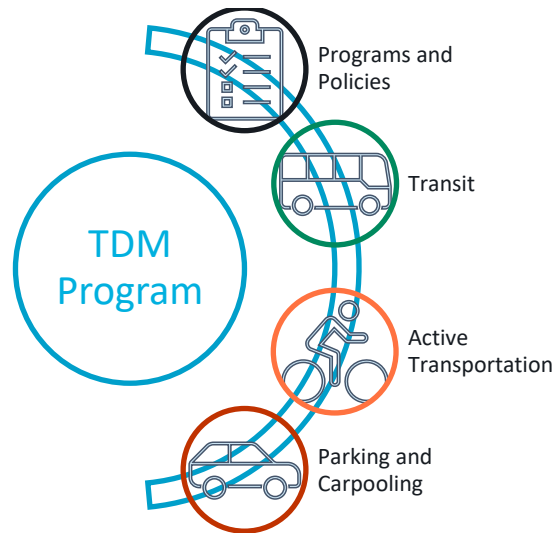
This section presents potential TDM strategies for San Juan and Aguadilla regions taking into account the diverse needs and behaviors of different types of travelers. The San Juan and Aguadilla regions could be used as pilot areas, providing a framework for TDM to be expanded to other areas of Puerto Rico. To address the unique requirements of these regions, a customized list of TDM measures has been developed. These measures were strategically identified based on existing conditions, best practices insight, and stakeholder engagement (through open houses and travel survey analysis). Each strategy has been described according to the following criteria:

- **Strategy:** why the TDM strategy was chosen
- **Estimated Timeframe:** the timeline for implementation of the TDM strategy, whether it will be a one-time implementation or on-going (monthly, semi-annual, or annually)
- **Implementing Party:** the responsible party in charge of implementing the TDM strategy
- **Performance Measure:** the measurement to determine the impact of the TDM strategy
- **Funding:** who will be responsible for providing funding for the TDM strategy

Recommended Strategies

The recommended strategies are organized into the categories Identified in Figure 0-1

Figure 0-1: Recommended TDM Strategies







Source: Steer, 2023

Summary of TDM Strategies

Table 0.1: s presents a summary of all the recommended TDM Strategies that could contribute towards mitigating congestion challenges in the San Juan and Aguadilla regions. The following sections will describe each strategy in more detail. The strategies detailed in this section are strategies that can potentially be implemented at a regional or MPO level.

Table 0.1: Summary of TDM Strategies

Mode/Program	Strategy
Policies and Programs 	Advisory board at regional level-TDM Regulations
	Regional collaboration and Leadership-TMA/Commuter program
	Voluntary Employer Commute Program
	Congestion Charges
	Multimodal Information
	Policy on Hybrid/modified Schedule
	New Hire Packages
	Support Strategies: guaranteed ride home, multi modal wayfinding, personal trip planning
Transit 	Expanded Transit Network
	Transit Education and Awareness Integration and Collaboration
	Transit Subsidy
Active Transportation	Secured Public Bike Parking + Support facilities

Mode/Program	Strategy
	Provision of Funding and Grants for Cycle Tracks
	Provision of Funding and Grants for Shared Micromobility
	Bike Education
Carpooling and Parking 	Carpool and Ride Matching Program
	Priority Carpool Parking + Carpool Lanes-advisory role
	Parking Fees

Source: Steer, 2023

Policies and Programs

This section focuses on programs and policies that will set the stage for the implementation of the full TDM program and will provide support for the program implementation. Policies and programs help to set expectations for TDM at different scales. Best practices research has also shown that the development of TDM policies and regulations are integral to the success of TDM programs.

Table 0.2: Policies and regulations

Strategy	Estimated Timeframe	Implementing Party	Funding
Advisory Board-TDM Regulations	Ongoing	MPO	MPO
<p>Strategy: The integration of TDM into the fabric of municipal development policies including existing developments can further encourage the use of sustainable transportation. TDM guidelines and regulations can set a minimum trip reduction target across developments of a certain size and land-use type. This can be enabled through the implementation of TDM strategies at site level and articulated in document as a site TDM Plan. This can enable the uniform development of TDM throughout the Island.</p>			
<p>Implementation: An advisory board constituted of members from the different municipalities should be instituted to discuss the appetite for TDM guidelines and regulations in the region, who the guidelines will affect, how TDM can be implemented, and what educational/awareness on sustainable transportation should be provided</p>			
<p>Performance Measure: N/A- but without TDM regulations, impact of TDM measures is unlikely to be achieved.</p>			
Regional collaboration and Leadership-Educational programs	Ongoing	MPO	MPO/municipalities
<p>Strategy: Collaborative approach to implementing TDM strategies and commuter programming across both regions to effectively leverage partnerships to help reduce congestion.</p>			
<p>Implementation: The San Juan MPO should lead coordination with multiple municipalities and agencies to identify opportunities where efforts can be consolidated and how each party can take on a role for the education and promotion of TDM. The MPO should provide guidelines, tools and resources for effective implementation in both regions.</p>			

Strategy	Estimated Timeframe	Implementing Party	Funding
Performance Measure: Number of programs launched, Number of collaborative efforts formed and sponsored between agencies and municipalities,			
Voluntary Employer Commute Program	Ongoing	MPO	MPO/Municipalities/ Employers
Strategy: The provision of customized commuter assistance to employers in the region that includes benefits such as telework assistance, transit pass discounts, ride-matching and educational and awareness programs.			
Implementation: Conduct a feasibility study to determine the viability of a Transportation Management Organization (TMO) or a voluntary commuter program in the region. The feasibility study should include considerations for the structure of the TMO/commuter program; government-led or board of directors, funding structure, membership structure, and goals and objectives of the intended TMO.			
Performance Measure: Mode share, Number of active participants, Emissions reduction			
Congestion Charges	Ongoing	MPO/Municipalities	-
Strategy: This is a dynamic pricing policy that is designed to regulate driving in the most congested areas of cities. Charges can vary between peak hours and non- peak hours. The revenue generated from congestion pricing can be used to improve and develop other sustainable modes of transport.			
Implementation: Develop congestion pricing policy in collaboration with municipalities and stakeholder groups.			
Performance Measure: Mode Share, Traffic Counts, Emissions Reduction, Revenue generated			
Multimodal Information	Ongoing	MPO/Transit Agencies/ municipalities	MPO
Strategy: The provision of adequate information on sustainable travel options is essential for encouraging mode shift. A communication plan that clearly outlines how to use or access each transportation mode and its benefits will increase awareness of mobility options and lower the barriers to use. Strategies include: <ul style="list-style-type: none"> • Website/ Mobile App - Have all transportation-related information and resources available in one virtual location makes it easy and convenient for people to learn about their travel options. The webpage should provide information about relevant special offers and programs from outside agencies (such as Transportation Management Organizations (TMOs) and local advocacy groups), nearby transit routes and schedules, bike and pedestrian paths, and other amenities. This will especially be helpful for new employees, residents and tourists to these regions who are unaware of the transportation options available to them. • Newsletters – Include TDM messaging in newsletters on a regular basis to inform and update members of sustainable travel options, upcoming events, and activities. • Social Media Channels – Promote transportation options and updates via engaging posts on social media channels such as Facebook, Instagram, and Twitter. 			
Implementation: Create a webpage or APP that lives on the MPO’s website as well individual municipalities’ website and includes information on: <ul style="list-style-type: none"> • TDM incentives and services • Resources for trip planning • Guaranteed Ride Home • Safe Routes to School programs • Transit information • Cycling Information In addition, create a social media presence, develop a regular schedule for newsletters and social media posts and promote relevant transportation information regularly through employee and resident bulletin boards.			
Performance Measure: Transit ridership, Transit mode share, Number of website hits, Number of downloads of APP			

Strategy	Estimated Timeframe	Implementing Party	Funding
Hybrid/modified Schedule Policy Guidelines	Ongoing	MPO/ Municipalities/ Employers	MPO
<p>Strategy: The COVID pandemic showed that employees can be equally as productive when they work remotely compared to when they are on site. According to research, some employees are even more productive working from home^{17,18}. Employers can be encouraged to implement hybrid or modified work schedules to reduce the need to commute into the office. Modified or flexible work schedules involve reducing the number of days employees commute to the office. An example of this is allowing employees to work 4 days / 10 hours per day as opposed to 5 days / 8 hours per day, thereby reducing employee commute time by 20%. Furthermore, implementing flexible work hours whereby employees can resume work at a range of times reduces peak-time congestion on the roads.</p>			
<p>Implementation: Develop Hybrid/Modified Schedule guidelines that employers can adopt as part of the Human Resources and Telework policy. The guidelines should stipulate the requirements for flexible and remote work. In addition, municipalities can offer incentives to workplaces to encourage the implementation of modified work schedules.</p>			
<p>Performance Measure: Number of employees working from home, Employee satisfaction</p>			
New Hire Package Guidelines	Ongoing	MPO/ Employer	MPO
<p>Strategy: Behavior change happens most effectively during major ‘events’, such as when individuals change jobs or move homes because there is a renewed focus on learning how to get around. A new hire package should be developed providing details of local transportation options and summarizing the incentives and resources available to them. The information in this package could also be used as part of new hire orientation.</p>			
<p>Implementation: The MPO can provide guidelines to employers on how to design New Hire packages. These packages should provide information all transportation options available to employees as well services that make choosing alternative transportation easier. The packages should include: Subsidized transit pass Information about transit routes Information about transportation related amenities Map highlighting 10- and 20-minute walk bike radius Information about Guaranteed Ride Home</p>			
<p>Performance Measure: Mode share, transportation web page hits</p>			

Source: Steer, 2023

Public Transit

According to the survey data and existing conditions reports, congestion problems in the San Juan and Aguadilla Regions are compounded by lack of efficient transit services. From the survey results, respondents were most interested and willing to try transit (41%), the highest of alternative transportation options, with information about transit routes and schedules most needed. Below are the strategies that can be used to shift single-occupancy trips to transit trips.

¹⁷ [State of Remote Work 2021 | Owl Labs](#)

¹⁸ [Report: Remote work in the age of Covid-19 | Slack](#)

Table 0.3: Strategies for transit services

Strategy	Estimated Timeframe	Implementing Party	Funding
Expanded Transit Network	Ongoing	Municipalities/ Transit Agencies	MPO/ Municipalities
Strategy: A well connected transit network encourages more people to use transit by providing more access points/transit stops, providing better connections to workplaces and providing more first/last mile options.			
Implementation: San Juan MPO, Transit agencies, municipalities and workplaces should work together to determine priority areas of expansion.			
Performance Measure: Transit ridership, Transit mode share			
Transit Education and Awareness Integration and Collaboration	Ongoing	MPO/ ACT/ Municipalities/ Transit Agencies	MPO/Municipalities
Strategy: The coordination of different Puerto Rico departments involved in transportation and transit planning to strategize transportation awareness campaigns and education programs			
Implementation: The San Juan MPO should convene the different departments in the region involved in transportation planning to strategize educational and awareness campaigns			
Performance Measure: Number of transportation awareness campaigns, non-SOV mode share			
Transit Subsidy- Youth	Ongoing-monthly	MPO/Transit Agencies	MPO
Strategy: The provision of subsidized transit passes can provide added flexibility for students and youths who might still opt to drive sometimes. As shown Figure 0-1 in the Congestion Problems and Needs section, San Juan has a fairly-developed transit system, particularly in the northeast area, these areas will be most appropriate for implementing transit subsidy.			
Implementation: It is recommended that the transit subsidy program being offered in Puerto Rico be expanded to all youths in both regions. The Puerto Rico Metropolitan Bus Authority currently offers transit discounts to the students at the University of Puerto Rico, the MPO can provide grants and funding to transit agencies to provide subsidized transit passes to the youths.			
There is also the potential to expand the transit subsidy program to interested employers, however the employers would have to fund a transit subsidy program for their employees. The employers should liaise with transit agencies to identify the most effective incentive approach, ideally the incentive approach should be flexible based on employee usage.			
Performance Measure: Transit mode share, ridership, and number of passes distributed			

Source: Steer, 2023

Active Transportation

Below are the strategies that can be used to shift single-occupancy trips into active transportation trips, i.e., biking, walking, and rolling either via micro mobility such as scooters/rollerblades or transportation mobility devices. Active transportation strategies can specifically be targeted at students and the retired because they tend to make shorter trips to destinations within their neighborhoods such as grocery store, community centers and schools. It can also be promoted in conjunction with transit for commuters as a form of first/last mile transportation.

Safety is major issue for biking in Puerto Rico, 87% of participants in a questionnaire indicated their concerns about distracted drivers, while another 83% indicated concerns about the speed of vehicles.¹⁹

Table 0.4: Strategies for an active transportation system

Strategy	Estimated Timeframe	Implementing Party	Funding
Secured Public Bike Parking + Support facilities	Ongoing	MPO/ Municipalities	MPO/ Municipalities
<p>Strategy: The provision of long term and short term accessible and safe bike parking is an important factor in encouraging biking. Bike parking should be placed in well-lit, visible, and pedestrian accessible locations, ideally with protection from rain and other weather elements. In addition to bike parking, end of trip amenities such as showers, change rooms, and basic bike maintenance tools can also be used to encourage biking.</p> <p>Implementation: A big concern for the lack of biking in Puerto is the lack of safe bike parking, 45% of participants that took part in a questionnaire for the Bike and Pedestrian Plan expressed concerns about their bikes being stolen when parked²⁰. Municipalities can provide public bike parking, lockers and locate end of trip facilities in easily accessible and safe locations in these regions through funding from the MPO.</p> <p>Performance Measure: Bike mode share, bicycle facilities usage, number of new cyclists</p>			
Protected Bike Racks	Ongoing	MPO/ Municipalities	MPO/Municipalities
<p>Strategy: These are dedicated bike facilities that run alongside the road as vehicles but are physically separated from vehicular traffic by a buffer zone such as a curb or fixed pylons. They may be placed at the same level of the sidewalk or elevated.</p> <p>Implementation: The San Juan MPO can provide funding to municipalities to develop protected cycle tracks. They should ideally be along streets with few driveways and cross streets for smooth flow of traffic and along streets with high bike volumes. For information design on guidelines, please refer to NACTO²¹</p> <p>Performance Measures: Bike mode share, number of new cyclists, reduction bike accidents</p>			
Shared Micro Mobility Funding	Ongoing	MPO/Municipalities/ local vendor	MPO/ Department of Transportation and Public Works
<p>Strategy: The provision of shared bikes and scooters is a way to further encourage the uptake of biking by lowering the barrier of entry, since individuals do not have to procure their own bikes. Bike trips could easily replace short trips under 5 kilometers. Adoption of e-bikes can increase the bike-shed even further to around ten kilometers.</p> <p>Implementation: If available, partner with local vendors to make shared micromobility options to residents and commuters. There is also the potential to expand shared micromobility to into mobility hubs where different transport modes interact, providing commuters with even more transport options.</p> <p>Performance Measures: Number of registered uses, cycling mode share</p>			

¹⁹ [Bike-and-Ped-OCT262018-Final.pdf \(pr.gov\)](#)

²⁰ [Bike-and-Ped-OCT262018-Final.pdf \(pr.gov\)](#)

²¹ [2012guidance_raisedcycletrack.jpg \(2621x1080\) \(nacto.org\)](#)

Strategy	Estimated Timeframe	Implementing Party	Funding
Bike Education	Ongoing-Biannually	MPO	MPO
Strategy: Bike education and workshops can be a means to boost bike participation. The regions can partner with bike advocacy groups and TMOs to host bike safety workshops to educate residents and commuters on the basics of cycling and share educational resources such as maps of nearby bike amenities (such as bike facilities at transit stations) and bike routes.			
Implementation: Partner with local bike advocacy groups, bike shops and TMOs to organize bike training courses, webinars, and/workshops.			
Performance Measures: Bike Mode Share, number of new cyclists			

Source: Steer, 2023

Parking, Carpool and Car share

Carpool and parking strategies will be vital to reducing drive alone rates and congestion in the two TMAs, particularly Aguadilla Region, due its lack of public transportation services. Best Practices Research have shown that parking strategies have a significant impact on mode shift and congestion.

Respondents from stakeholder engagement activities expressed interests in carpooling as an alternative transportation solution. According to the behavioral survey, carpool strategies that garnered the most interest from respondents were cheaper parking for carpoolers, priority parking for carpoolers and help with finding carpool partners. Respondents also had interests in the provision of carsharing discounts. Below are the strategies that can be used to shift single-occupancy trips into shared vehicle trips, i.e., carpooling, vanpooling and car sharing.

“I Would Use A Ride Sharing System As Long As I Ensure It Is Safe And Reliable, Is Available Until Midnight And Has A Reasonable Average Price OR Offers A Government System”

Table 0.5: Strategies for an alternative transportation solution

Strategy	Estimated Timeframe	Implementing Party	Funding
Carpool and Ride Matching Program	Ongoing	MPO/ Municipalities	MPO
Strategy: If available, the provision of a ride matching portal to residents and commuters in these regions can encourage individuals to carpool. To further encourage a shift to shared rides, municipalities within these regions can also partner with ride hailing services such as Uber to provide subsidies to commuters and residents.			
Implementation: The MPO can provide funding and guidelines for the development of a regional carpool and ride matching program (in collaboration with a TMO) to encourage residents and commuters to carpool. A ride match portal can be developed, or a partnership can be formed with existing ride matching software developer to encourage residents and commuters to find ride match partners. In addition, municipalities/ employers can host ride match events to promote and connect employees/residents with the same travel route and times.			
Performance Measure: Mode share, number of active carpoolers, number of active carpool groups, number of daily carpool trips			

Priority Carpool Parking + Carpool Lane	Ongoing	MPO/ Municipalities	MPO / Municipalities
Strategy: Dedicated parking spots reserved only for carpools that will prioritize these modes over single-occupant car trips. In addition, to ease congestion priority carpool drive lanes should be dedicated to cars with 3 or more carpoolers.			
Implementation: The MPO can advise on the development of priority carpool parking and carpool lanes as part of regional transportation parking policies.			
Performance Measures: Mode share, number of active carpoolers, number of active carpool groups, number of daily carpool trips			
Park and Rides	Ongoing	MPO/Municipalities	MPO/ Municipalities
Strategy: The provision of large parking lots along major highways and metro stations that allows commuters to park their cars and use sustainable modes of transportation to complete the remainder of their journey.			
Implementation: The MPO can provide guidelines and funding for the development of park and ride lots. When developing the guidelines, considerations should include: Paid vs free park and ride lots Suburban vs urban park and ride lots Design for multimodal connections			
Performance Measure: Mode share, Parking lot utilization			
Parking Fees	Ongoing	Municipalities/Employers /Property Management	-
Strategy: Parking fees in the form of daily parking permits can be used to dissuade people from driving. Employers are encouraged to implement daily parking permits as opposed to monthly parking permits. Alongside the same idea, municipalities can increase the number hourly parking stations in highly congested areas of the region. This creates the idea of having to spend more everyday for parking and encourages employees/tenants to explore other sustainable transportation options.			
Implementation: Mandate employers and property managers through regulations or guidelines to provide parking spaces at market rates.			
Performance Measure: Mode Share, parking fees collected, parking lots utilization			

Source: Steer, 2023

Monitoring

Inventory of Data Sources

Being that there is currently no TDM program in Puerto Rico, it is important to conduct an inventory of data that is readily available through other programs such as the CMP, traffic modelling, and traffic data. The review of existing data provides the opportunity to streamline data being collected and allows for the uniformity of data collection across all municipalities, if and when a TDM program is implemented.

Annual Commute and Parking Survey

The implementation of a Voluntary Employer TDM program could provide a baseline for metrics that indicates how a pilot TDM program is performing and identify areas to improve in the TDM program. It can be a low-cost resource to assess TDM strategies at both site, aggregated municipal or even Island-wide scale. In addition, if instituted TDM Regulations can mandate sites to conduct annual TDM surveys

to assess how TDM programs are performing at their individual properties. The metrics can be collected through an annual commute survey.

The baseline survey and the subsequent annual surveys should ask questions to understand how residents, employees and community members travel for different types of trips and understand barriers to sustainable travel. To gain an insight into the tenant's travel characteristics and attitudes, the survey should identify the following key topics:

- Mode of travel by trip purpose (work, school, leisure, etc.)
- Work location
- Business travel requirements, if applicable
- Errands before and after work, if applicable
- Flexible working arrangements, if applicable
- Current barriers to commute alternatives
- Ideas for how to encourage walking, biking, carpooling and transit
- Car ownership
- Level of awareness of TDM amenities
- Feedback on amenities and services currently available
- Other services or amenities that are not currently offered which would encourage residents to try a different mode of travel

The survey results will allow municipalities to not only track program progress but also identify ways to adjust the program and further shift travel behavior towards more sustainable modes (transit, bike, walk, and carpool) over time.

Reporting

Based on the inventory of existing data, a standardized reporting system should be developed across all municipalities that collects a core set of data measuring the same metrics. This will enable the progress of TDM to be compared across various municipalities and provide opportunities for the data to be aggregated on a regional level. It also provides opportunities for the region to set region wide TDM targets to reduce congestion.

If instituted, TDM Regulations should encourage individual sites (of a certain number of employees or occupants) to develop annual compliance reports, which would include:

- **TDM Plan** describing the list strategies being implemented (how and where implemented) and projected impact.
- **Annual Travel Survey** to understand motivations and challenges to using TDM strategies, as well as impact.
- **Annual Monitoring Report** describing the status of TDM strategies and their impact on reducing congestion and parking demand.

The implementation of a Voluntary Employer Commute program further provides the opportunity for TDM metrics to be collected on a site level. The compliance reporting from sites in conjunction with the Congestion Management Process (CMP) can form the base of the monitoring strategy for the region. Municipalities in the regions are encouraged to develop annual TDM reports based on information from individual sites and other available metrics. This can be further amalgamated on a regional level.



Encuesta de Viajes

Introducción

Gracias por tomarse el tiempo de completar esta Encuesta de Viajes. La Autoridad de Carreteras y Transportación de Puerto Rico (ACT) está llevando a cabo una revisión exhaustiva de cómo la gente se desplaza en Puerto Rico. La información que usted provea hoy guiará las estrategias para mitigar y disminuir la congestión, así como avanzar en la sostenibilidad y el objetivo de reducción de gases de efecto invernadero, promoviendo y fomentando el uso de modos alternativos de transporte entre empleados, residentes y visitantes.

Como parte de este esfuerzo, a la ACT le gustaría conocer sus patrones de desplazamiento (*commute*) actuales, sus necesidades y qué tipos de servicios o comodidades le ayudarían a dejar el carro en casa.

Su privacidad es importante para nosotros. La información proporcionada será confidencial y sólo se utilizará para la elaboración del estudio.

Le agradecemos por su tiempo.

Información General

1. ¿En qué municipio vive?*: _____

2. ¿Cuál es su estatus profesional?*

Empleado

Estudiante (*Pase a la pregunta 7*)

Desempleado (*Pase a la pregunta 9*)

Retirado (*Pase a la pregunta 9*)

Empleados

3. ¿Qué describe mejor tu industria?*

Entretenimiento/Medios de Comunicación

Negocios/Finanzas

Hospitalidad/Turismo

Servicios de Salud

Manufactura/ Construcción

Transportación

Otro: _____

4. ¿Cuál es su tipo de jornada laboral?*

Trabajo a tiempo completo

Trabajo a tiempo parcial

Trabajo jornal (sin un horario fijo)

Disponible en cualquier momento (*On-call*)

Otro: _____

5. ¿Cuándo usted típicamente sale para su trabajo?*

AM Hora pico: 6:00 am – 9:00 am

Mitad del día: 9:00 am – 3:00 pm

PM Hora pico: 3:00 pm – 5:00 pm

Tarde: 6:00 pm – 9:00 pm

Noche: 9:00 pm – 6:00 am

Mi horario cambia por semana

No Aplica (Yo trabajo de forma remota solamente)

6. ¿Cómo se distribuye su tiempo de trabajo entre el trabajo remoto y trabajo en persona?*

100% en persona

100% remoto

Híbrido

Híbrido/remoto, pero estén en transición a 100% en persona pronto

Estudiantes

7. ¿Cuándo usted típicamente sale para su lugar de estudio?*

AM Hora pico: 6:00 am – 9:00 am

Mitad del día: 9:00 am – 3:00 pm

PM Hora pico: 3:00 pm – 5:00 pm

Tarde: 6:00 pm – 9:00 pm

Noche: 9:00 pm – 6:00 am

Mi horario cambia por semana

No Aplica (Yo trabajo de forma remota solamente)

Desempleado/Retirado

8. ¿Cómo se distribuye su tiempo de estudio entre el aprendizaje remoto y en persona?*

100% en persona

100% remoto

Híbrido

Híbrido/remoto, pero estén en transición a 100% en persona pronto

Forma actual de desplazamiento

9. ¿Dónde usted viaja normalmente? (Seleccione todas las que apliquen).*

Centro Comunitario

Centro de Trabajo

Parque

Librería

Centro Recreativo

Servicios Médicos

Supermercados

Tiendas

Otros, favor de especificar:

10. Según su conocimiento, ¿qué beneficios de transporte ofrece su empleador/escuela/centro? (Seleccione todas las que apliquen) *

Subsidio de transporte

Carpooling/vanpooling

Facilidades para bicicletas

Transporte a la casa garantizado

Estacionamiento gratis

Ninguno

No sabe de ningún programa de beneficios de transportación (**Pase a la pregunta 12**)

Otro, favor de especificar:

11. ¿Cuál de los programas de beneficio de transportación usted utiliza actualmente? (Selecciones todas las que apliquen) *

Subsidio de transporte

Carpooling/vanpooling

Facilidades para bicicletas

Transporte a la casa garantizado

Estacionamiento gratis

Ninguno

Otro, favor de especificar:

12. En promedio, ¿Cuántos días a la semana se desplaza normalmente utilizando cada una de estas opciones? Si utiliza más de una opción en una semana normal, seleccione varias opciones (por ejemplo, 3 días en carro, 2 días en bicicleta). *

	1 día	2 días	3 días	4 días	5+ días	No lo utilizo
Guío o manejo solo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilizo transporte público	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camino	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corro bicicleta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guío/viajo en pon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guío/viajo en vanpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corro en motora	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Me lleva/recoge un familiar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilizo taxi/Uber/Lyft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilizo un servicio de carro compartido como Drive PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trabajo desde la casa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Otro, favor de especificar: <hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Si suele hacer alguna parada en su viaje al trabajo/colegio/otros, ¿por qué la hace?

(Seleccione todas las que apliquen)

Cuido de niños

Dejar estudiantes en la escuela

Dejar un pasajero

Hacer diligencias

No hago ninguna parada en mi camino al trabajo

Otro, favor especificar:

14. Si suele hacer una parada en su viaje de regreso a casa, ¿por qué la hace? (Seleccione todas las que apliquen)

Cuido de niños

Recoger estudiantes en la escuela

Dejar/recoger un pasajero

Hacer diligencias

Recreacional o social

No hago ninguna parada en mi camino a mi casa

Otro, favor especificar:

15. ¿En general, cuán satisfecho se siente usted con su viaje al trabajo/escuela/otros en una escala del 1-5?*

Calificación: 1 2 3 4 5
Muy Malo Muy Bueno

Interés en Opciones de Transporte

16. ¿Cuáles son los factores más importantes que influyen cómo usted decide hacer su viaje? (Seleccione todas las que apliquen)*

- | | |
|---|---|
| <input type="checkbox"/> Conveniencia | <input type="checkbox"/> Impacto ambiental |
| <input type="checkbox"/> Costos financieros | <input type="checkbox"/> Seguridad |
| <input type="checkbox"/> Tiempo | <input type="checkbox"/> Otro, favor especificar: |
| <input type="checkbox"/> Flexibilidad | _____ |

17. ¿Qué otros medios de transporte usted estaría dispuesto a probar?*

- | | |
|---|---|
| <input type="checkbox"/> Caminar | <input type="checkbox"/> Compartir Vehículo/Compartir Guagua/ Servicios de Carro Compartido como Drive PR |
| <input type="checkbox"/> Correr Bicicleta/bicicleta eléctrica | <input type="checkbox"/> Ninguno |
| <input type="checkbox"/> Scooter eléctrico | <input type="checkbox"/> Otro, favor especificar: |
| <input type="checkbox"/> Transporte Público: Tomar el transporte público (tren ligero o autobús) | _____ |

18. Si ha utilizado algún modo de transportación diferente (caminar, correr bicicleta, transporte colectivo, pon (2 personas o más), guagua compartida (5 personas o más)), ¿Cuáles han sido sus dificultades? (Seleccione todas las que apliquen)*

- | | |
|--|---|
| <input type="checkbox"/> El tiempo de viaje era largo | <input type="checkbox"/> Necesito transportar a mis hijos |
| <input type="checkbox"/> Tránsito poco accesible | <input type="checkbox"/> Temo quedarme atrapado en caso de emergencia o de horas extraordinarias no programadas |
| <input type="checkbox"/> Demasiadas conexiones (<i>por ejemplo: tomar demasiadas guaguas para llegar a su destino</i>) | <input type="checkbox"/> Demasiado caro |
| <input type="checkbox"/> Falta de rutas ciclistas que sean seguras | <input type="checkbox"/> No he probado otro modo de transporte que no sea manejando (guiando). |
| <input type="checkbox"/> No hay infraestructura para bicicletas alrededor del lugar de trabajo | <input type="checkbox"/> Otro (favor de especificar): |
| <input type="checkbox"/> Mi horario varía con frecuencia | _____ |
| <input type="checkbox"/> Necesito un vehículo para trabajar | |

19. ¿Qué le animaría a probar un modo de transporte distinto al de conducir solo (caminando/bicicleta/transporte/carro compartido/guagua compartida)? (Seleccione todas las que apliquen)*

General

- Obtener más información sobre sus opciones de transporte
- Ayuda para planificar el viaje
- Premios o concursos
- Un transporte garantizado a casa (por ejemplo, taxi/Uber) en caso de emergencia o imprevisto
- Señales de orientación que ayuden a identificar y localizar las opciones de transporte

- Opciones de transporte que ayuden a conectar la primera y la última milla del viaje.
- Infraestructura más segura para peatones como por ejemplo aceras accesibles que tengan lugares para sentarse y suficiente iluminación

Relacionado con el uso de bicicletas/bicicletas eléctricas/Scooter eléctricos

- Mapas e información sobre rutas o carriles para bicicletas
- Infraestructura más segura entre mi casa y el trabajo
- Estacionamiento seguro para bicicletas, vestuarios, duchas y casilleros.

- Ayuda/préstamo para comprar una bicicleta
- Uso compartido de bicicletas y Scooter
- Formación y educación en materia de seguridad

Relacionado al uso del transporte

- Subvención/descuento del transporte público

- Información sobre rutas y horarios de transporte
- Ampliación de la red de transporte

Movilidad compartida

- Ayuda para encontrar personas con las que compartir vehículo
- Estacionamiento prioritario para los que comparten vehículo

- Descuento por compartir vehículo
- Estacionamiento más barato para vehículos compartidos
- Autobuses a demanda o de ruta fija

Otro, favor especificar: _____

20. ¿Dónde acudiría o ha acudido para recibir información sobre sus opciones de transporte? (Seleccione todas las que apliquen)*

- Autoridad de Carreteras y Transportación de Puerto Rico (ACT)
- Organización Metropolitana de Planificación de Puerto Rico (MPO)
- Departamento de Transportación y obras Públicas de Puerto Rico (DTOP)
- Proveedor de servicios de tránsito (favor de especificar):

- Centro Comunitario
- Alcaldía Municipal (favor de especificar):

- No sabe dónde buscar información
- Otro (Favor de especificar):

Escuela

21. ¿Qué plataformas de comunicación utiliza a menudo para recibir información actualizada y de confianza? (Seleccione todas las que apliquen)*

- Anuncio en el periódico
- Noticias en televisión
- Radio
- Página web
- Redes sociales: Facebook, LinkedIn, Twitter

- Publicidad por correo
- Publicidad exterior, como anuncios en el transporte público y carteles publicitarios (billboards)

22. ¿Cuáles de los siguientes programas de Puerto Rico usted conoce? (Seleccione todas las que apliquen)*

- Cooperativa Cultura Bicicleta
- Día sin carros en San Juan
- Ninguno

Otro (favor de especificar):
