$\rightarrow$ **Appendix B: SWOT Analysis**

Regional Transportation Demand Management Plan

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Prepared for the Atlanta Regional Commission

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Introduction

In support of the Atlanta Regional Transportation Demand Management (TDM) Plan, this report synthesizes the Strengths, Weaknesses, Opportunities, and Threats (SWOT) of the regional TDM program as they relate to current sociodemographic and mobility trends and relevant plans, policies, and initiatives of TDM stakeholders. In conjunction with the Regional TDM Inventory Report, the SWOT Analysis informs the Regional TDM Needs Assessment and Program Evaluation.

The SWOT analysis is structured by key themes derived from the Regional TDM Inventory (v1 submitted January 24, 2022) as they relate to DEMOGRAPHIC, GEOGRAPHIC, FUNDING, PROGRAMMATIC, ECONOMIC, AND MODAL factors with the greatest potential to influence regional TDM program outcomes. These key themes provide a framework for the SWOT analysis which will be used to inform TDM program goals for the Regional TDM Plan.

Process

The SWOT analysis leverages the Regional TDM Inventory for data and supporting evidence of key factors with the greatest potential to influence TDM program outcomes. The Regional TDM Inventory included a review of the current TDM program, administration, and initiatives as a baseline for future recommendations; a summary of key federal, state, regional/local planning and policy documents; a brief case study of TDM best practice both nationally and internationally; and a summary of regional socio-demographic and mobility trends. The SWOT analysis collates the research of the Regional TDM Inventory as outlined below.

- Strengths - What aspects of the inventory asset strengthen the regional TDM program? These are influences that directly impact ARC's internal process for planning/administering the regional program and are positive in their impact on TDM.

- Weaknesses - What aspects of the inventory asset weaken the regional TDM program? These are influences that directly impact ARC's internal process for planning/administering the regional program and are negative in their impact on TDM.

- Opportunities - What aspects of the inventory asset pose opportunities for TDM? These are external influences on the regional TDM program and positive in their impact on TDM.

- Threats - What aspects of the inventory asset threaten TDM? These are external influences on the regional TDM program and negative in their impact on TDM.

SWOT Analysis

In general, key themes from the Regional TDM Inventory reveal that **the TDM program must expand and diversify the scope of its service offerings and beneficiaries, as the region's mobility needs continue to grow and evolve**. The regional TDM program must cast a wider net to promote existing services to new users, while also creating new services tailored to specific mobility needs and geographies. This expansion will rely on partnerships with stakeholders beyond traditional employers (including human services and community-based organizations), new messaging and marketing strategies, and new funding sources.

The SWOT matrix below summarizes the strengths, weaknesses, opportunities, and threats identified through the Regional TDM inventory. Additional detail is also provided within each key theme: DEMOGRAPHIC, GEOGRAPHIC, FUNDING, PROGRAMMATIC, ECONOMIC, and MODAL.

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SWOT Summary

Strengths	Weaknesses
• **Regional commitment to TDM:** The regional TDM program allocates more federal funding than most regions toward commuter outreach. Local partners are going beyond matching ARC resources with additional funds and grants.	• **Focus on 9-5 commute**: TDM programming is still not aligned with the needs of the various audiences outside of the white-collar office worker. 22% of respondents to the Georgia Commute Options (GCO) 2019 Regional Commuter Survey (RCS) said that they did not participate in commute programs because of childcare or other schedule constraints.
• **Collaboration with wide range of partners**: Employers, Transportation Management Associations (TMAs), Community Improvement Districts (CIDs), and other private partners help deliver many TDM programs tailored to the needs of specific geographic areas. Stakeholder engagement in TDM plans and programs shows that they value TDM as a tool to meet a wide range of goals. CIDs in particular support innovation and economic development through TDM.	• **TDM program scales differently across GCO and TMA service areas:** Due to varying population and density of employment and infrastructure, commuters in TMA areas have access to significantly more transit service and alternative mobility options. Outside of TMA areas, only 46% of surveyed employees had access to commute services at work (72% in TMA areas) including alternative commute information, discounted transit passes, support for vanpools, and guaranteed ride home..
• **Diversity of skillsets, experience, and tools represented in the TDM program**: ARC's mobility services division addresses planning, programming, technology, and evaluation (including data and modelling). The TDM program is also supported by expertise from non-profits and consultants. ARC has an aging division, workforce development, funds studies and offers significant opportunity for GCO and TMA partnerships to deliver improved services to diverse audiences.	• **Limited funding**: The Atlanta Region's Plan allocates only 3% toward explicitly TDM-focused programs, in addition to 3% toward Walking and Biking within the Demand Management area. Total federal funds have declined in the past four Transportation Improvement Programs (TIPs). State and local transit funding and fares represent a smaller percentage of operating revenues for the region compared to national averages. It can be difficult for under-resourced communities to put together funding applications and provide matching funds for projects.
• **Regional evaluation and data collection**: The TDM program has one of the most rigorous independent evaluation components of any TDM program in the country. There is flexibility to customize performance targets based on local conditions without precluding performance evaluation at a consistent program-wide, regional scale. TDM evaluation supports a business case for TDM investment.	• **Limited awareness, participation, and mode shift:** Only 15% of regional commuters knew of the GCO program (a decline from 23% in 2014) in the 2019 RCS. TDM services/benefits did not motivate mode shift for 2019 RCS respondents to increase their use of commute options. As seen on the [Atlanta Regional TDM Program Dashboard](#), total TDM program registration had been declining even before the pandemic began – from 28,941 total program registrants in January 2019 to 25,781 in December 2019, followed by a sharper decline in 2020 due to the switch from RidePro to AgileMile.
• **Diverse funding sources**: Beyond Congestion Mitigation and Air Quality (CMAQ) funding, TDM funding sources include tax allocation districts, private sector grants, and CIDs. The Infrastructure Investment and Jobs Act (IIJA) will provide a 37% increase in formula-based public transportation funding to Georgia. The Transportation Services Tax, enacted in 2020, levies a user fee on ground transportation and is expected to provide up to $45 million a year for transit infrastructure projects.	• **Lack of central information source and coordinated technology:** Externally, there is not one clear hub of TDM information. The region lacks a consolidated platform to share mobility option data, an integrated multimodal electronic payment and reservations system, and multi-modal technology applications with advanced traveler information. Internally, there is no centralized data hub or data management structure to maintain or distribute modal information. The ARC TDM Dashboard is not coordinated with data analytic tools/repositories.
• **Impact on users**: TDM programs catalyze behavior change among users who received services from GCO or a TMA: 64% took an action after receiving the service to try to change how they traveled to work. Despite losing half of regional TDM program registrants since January 2019, GCO and employer partners have maintained monthly VMT reductions of over 40 million.	• **Performance measurement challenges**: Data needed to support the TDM evaluation framework is decentralized and distributed across multiple sources including employers, partners, and TDM service providers. There is insufficient data in TDM program reports on socioeconomic
• **Adaptability through disruption**: TDM programs have adapted to telework opportunities and maintained relevancy during the evolving conditions of the pandemic. Total clean commute logging increased from 1.5 million commute trips in 2019 to over 1.7 million in 2020 due to	

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more telework and a new tool for commuters to log their rides that also included access to more prizes.	and sociodemographic characteristics of commuters and employers served, which could be collected through existing registration forms and surveys to track equity of the program.

Opportunities	Threats
• **New partnerships with diverse community and private organizations:** ARC can work with community-based organizations to reach a broader demographic. CIDs and human services organizations can provide warm leads and resources. Public-private partnerships offer access to funding, core audiences, and complementary infrastructure. Collaboration with transit providers can improve active transportation access to transit stops. There is support among stakeholders for ARC to serve as a regional TDM convener and facilitator to improve and expand TDM services. • **Existing partnerships**: Most Atlanta area TMAs are strongly aligned with a CID, which provides a pathway to integrate TDM into developments. Livable Center Initiative (LCI) project relationships with employers, schools, and CIDs, could be leveraged for TDM programming. Partners can also interweave TDM messaging into communications strategies. There could be opportunities to incorporate TDM elements into new investment programs such as Safe Routes to School (SRTS) with the Georgia Department of Transportation (GDOT). • **Coordinated traveler technology**: Agencies can share technologies, use interoperable technologies, and/or consolidate traveler tools into one app directly and to connect with TDM initiatives – such as links to incentives programs, adding vanpool options, etc. The region may benefit from non-commute technology, such as a Regional One Click System for aging adults. • **Support for TOD at potentially catalytic sites**: Public buy-in for Transit Oriented Development (TOD) could accelerate development, which would present opportunities for TDM programs targeted at new residences or employment centers. At commercial developments, existing TDM programs could be expanded to support employee access. • **New funding opportunities**: ARC can diversify funding allocated to TDM and expand programming beyond the commute, including county sales tax referenda for transit/multimodal projects; the new state bond package; a rideshare per-trip fee; and the IIJA's expansion of project eligibility for Highway Safety Improvement Program (HSIP) funds, Surface Transportation Clock Grant (STBG) funds, and CMAQ funds to support TDM strategies. As the Atlanta Department of Transportation (ATLDOT) establishes a funding task force, there could be opportunities to pursue funding specifically for TDM programming. • **Implementation framework:** The TDM program would benefit from a clear organizational and implementation framework that showcases the roles and responsibilities for each element of the program.	• **Unreliable funding**: Funding for some of the IIJA's TDM-supportive programs must be secured through the congressional annual appropriations process, making future funding less predictable. Many IIJA TDM-supportive funds are available only through competitive grants. Many organizations that support underserved communities rely on external donations and irregular funding to continue programming. Regional CMAQ guidance requires a focus on the commute trip, limiting the ability to expand services beyond the commute. There are also funding challenges for transit given transit ridership/revenue impacts of the pandemic. Similarly, declines in local revenues due to the pandemic impact the ability to fund transit-supportive or active transportation needs. • **Transit gaps**: Paratransit, fixed route, and first/last mile coverage is geographically limited, and costs can be high, often limiting job and labor force access. Mobility management approaches do not always incorporate Human Service Transportation (HST) populations or serve those without smartphones/cellphones. 75% of non-transit riders indicated that they did not have access to transit for their commute trip. Lack of or poor condition of amenities and supporting infrastructure can deter riders, along with concerns about affordability and inconveniences like transfers. In Atlanta's AARP livability index, low-ranking transportation components include congestion and safety. • **Inequitable and unsafe multimodal options**: Atlanta is ranked as one of the 10 most dangerous places to walk. Bike crashes occur disproportionately within Equitable Target Areas (ETAs). There are limited technology deployments focused specifically on pedestrian and bicyclist safety. Research has demonstrated that land use patterns and unequal access to transportation contribute to very low social mobility in Atlanta. • **Continued sprawl**: There is growing mismatch between job and housing locations, especially for the essential workforce due to continued challenges with affordable housing in central/core activity centers. Many areas with high projected growth are not well served by transit. Most population and employment growth (in absolute numbers) will take place in the region's core; however, growth rates are highest in the region's periphery making it difficult to implement coordinated services across broader and more diverse travel market. • **Focus on capacity expansion**: The ARC Regional Transportation Plan (RTP) project list includes several state route widening projects and GDOT 2050 emphasized capacity expansion; induced demand may undermine TDM efforts and related goals. Projects under ARC's "Expansion"

- **Leverage momentum around telework:** Sustaining the recent increase in telework, teleservices, and home deliveries over the longer term can support a more robust and sustainable TDM program.
- **Leverage economic growth:** High population and employment growth can be channeled into smart growth development.
- **Leverage safety and system management efforts**: ARC could leverage safety efforts to promote TDM. Through an ARC Transportation System Management and Operations (TSMO) committee and other strategies, ARC could expand the focus of TSMO beyond optimizing travel on the road network into optimizing people movement via shared and active modes and telework.
- **Integrated micro mobilit**y **and active transportation**: There have recently been a proliferation of shared use bike and micro mobility vehicles, providing new, low-cost options. TDM programs could facilitate daily commuter walking, cycling, or scooter groups including elements of gamification, like the 'Biketober' challenge.

investment area are receiving 22% of the total funding allocated in the RTP
- **Climate change**: Climate-related risks to the Atlanta region are growing and could damage transportation infrastructure and impede success of various travel options if system resiliency needs take precedent in the coming years.
- **Car culture and free/subsidized parking:** 80% of commuters park for free at work. TDM programs and financial incentives typically are not enough to move commuters from driving alone when parking is free. The RTP projects a growth in single occupancy vehicle (SOV) mode share and decline in high-occupancy vehicle (HOV) mode share.
- **Disruptions increasing SOV travel:** Among 2020 RCS respondents who commuted by transit, carpool, or vanpool prior to the pandemic, 46% said they will use those modes less often or stop altogether due to health concerns. The rise of transportation network companies and Connected and Autonomous Vehicles (CAVs) may threaten transit, bicycle, and pedestrian mode share.
- **Lack of policy mandates:** Engagement with TDM is voluntary in the Atlanta region; there are few regulations or mandates for employers, developers, municipalities, and other local partners to reduce vehicle trips.

Demographic Detail

The region is forecast to age significantly and to become more racially/ethnically diverse. TDM must support more inclusive transportation options that are accessible to travelers with a diverse range of mobility needs. This places greater priority on alternative transportation services that expand access to resources and opportunity and that are communicated and marketed across a broader audience. TDM strategies will need to reflect a growing market within underserved communities that may be English as a Second Language, aging in place, or supportive of independent living and economic access for disadvantaged populations, the unemployed or underemployed, or for persons with disabilities. Demographic change provides a significant opportunity to expand TDM services to support access to community resources and to address the full life-cycle of employment needs, particularly for underserved communities, to include job training, job access, and job retention.

Demographic Strengths:	Demographic Weaknesses
• **Equity emphasis in key planning documents**: Planning efforts include significant public engagement processes, equity-oriented goals and strategies, and use of data to understand equity issues. • **Diversity of community organizations:** Many organizations in the region have strong community ties to diverse and underserved groups and provide a variety of services, including direct provision of TDM services to specific communities, distributing TDM resources and information, connecting people to services, and/or advocating for equity and TDM-related policies. • **Existing programs that support inclusive mobility**: The ARC and other local agencies have already taken steps to improve mobility options for underserved populations, such as shuttles to improve first/last mile connectivity, discounted fares, and trip-planning technology. To build on the equity focus and return to work strategy, GCO plans to work directly with more community organizations, especially those representing EJ populations and areas, to educate workers on commute alternative opportunities.	• **Focus on 9-5 commute**: TDM programming is still not aligned with the needs of audiences outside of the white-collar office worker. 22% of respondents to the GCO 2019 Regional Commuter Survey said that they did not participate in commute programs because of childcare or other schedule constraints. • **Lack of socio-economic and socio-demographic data**: There is insufficient data in TDM program reports on socioeconomic and demographic characteristics of commuters and employers served. Additionally, while there are volunteer network options that serve HST populations – through non-profit, faith-based, or community organizations – these are not tracked in a database, making it challenging for people to locate these services.
Demographic Opportunities	Demographic Threats
• **Technology to support riders**: The ATL's Multimodal Trip Planner, currently in beta version, could be expanded to target accessibility-related needs. MARTA's Interactive System Map could also incorporate accessibility elements. ARC's proposed ITS4US deployment will provide all users with the ability to dynamically plan and navigate trips based on their personal needs and preferences. There are also opportunities to expand non-commute TDM services, such as a Regional One Click System for aging adults. • **Localized partnerships**: ARC can work with community-based organizations to connect with and provide resources to a broader demographic. E.g., given the Transformation Alliance advocacy for diverse communities, including mixed-income communities, TDM programming in these areas would extend benefits beyond the typical white-collar worker sphere.	• **Partner funding challenges**: Many organizations that support underserved communities rely on external donations and irregular funding to continue programming, which may impact programs and opportunities for collaboration. • **Strain on infrastructure**: The population continues to grow, placing strains on the transportation system. There is a backlog of needed transit improvements. • **Mobility & transit systems issues that disproportionately impact transportation or economically disadvantaged populations**: Challenges include malfunctioning elevators, inconsistent stop announcements, construction projects, limited coverage of ADA paratransit services, and infrastructure disrepair. Affordability is an issue for many transit riders. The complex transit system, including transfers, can present challenges for older adults. In Atlanta's AARP livability index, low-ranking transportation components include congestion and safety (due to speed limits and crashes).

Geographic Detail

The regional TDM program will need to continue to comprise services and strategies tailored to the needs of specific geographic areas, implemented in partnership with local TMAs and CIDs. Population and job growth are forecast at varying rates across the region with a growing mismatch between job location and housing location. This results in increased transportation costs and often increased transportation and housing instability with disproportionate impacts to lower wage workers. This is particularly impactful to our essential workforce due to continued challenges with affordable housing in economic and activity centers. Many areas with high projected growth are not well served by transit. TDM strategies will need to minimize associated mobility barriers for residents without (or limited) access to vehicles, in areas that are not served well by transit.

Geographic Strengths	Geographic Weaknesses
• **Network-level approach to planning**: The ATL Atlanta Regional Transit Plan (ARTP) emphasizes working across county and district lines to promote a more seamless network. ATL's transit district boundaries were drawn to extend across counties to support more coordinated planning. • **Innovative land use strategies**: The Livable Centers Initiative (LCI) encourages diverse land use mix and improved access to and between roadway facilities. • **High access to commute services in TMA areas**: The RCS shows that TDM programs have significant reach, but there is room for improvement, especially outside of TMA service areas. • **Coordination with TMAs and CIDs**: ARC partners with local TMAs and CIDs, providing services and strategies tailored to the needs of specific geographic areas.	• **TDM program scales differently across GCO and TMA service areas:** Due to varying population and density of employment and infrastructure, commuters in TMA areas have significantly more transit coverage and access to alternative mobility options. Outside of TMA areas, only 46% of surveyed employees had access to commute services at work (72% in TMA areas) including alternative commute information, discounted transit passes, support for vanpools, and guaranteed ride home.
Geographic Opportunities	Geographic Threats
• **Support for TOD at potentially catalytic sites**: More than 91% of riders are in support of development around MARTA stations. Public and stakeholder buy-in for TOD could accelerate development, which would present opportunities for TDM programs targeted at new residences or employment centers. At commercial developments, existing TDM programs could be expanded to support employee access to transit and/or work. • **Equity emphasis**: There is an opportunity to implement TDM strategies to minimize associated mobility barriers for residents without (or with limited) access to vehicles in areas that are not served well by transit. • **Concentrated growth**: Most population and employment growth (in absolute numbers) will take place in the region's core – in Cobb, DeKalb, Fulton, and Gwinnett counties, however growth rates are highest in the region's periphery (e.g., exurban communities such as Henry County). There is opportunity to channel growth into transit-oriented, walkable developments.	• **Job/housing mismatch**: There is growing mismatch between job and housing locations, especially for the essential workforce due to continued challenges with affordable housing. Harvard University's Equality of Opportunity Project has demonstrated that land use patterns and unequal access to transportation contribute to very low social mobility in Atlanta. • **Transit coverage challenges**: The geographic layout of the metropolitan area makes it much more difficult to provide comprehensive suburban transit coverage than to provide urban coverage, but many metropolitan jobs are now in the suburbs. Many areas with high projected growth are not well served by transit. • **Growth patterns**: Where growth occurs in a pattern of urban sprawl and lower-density development, implementation of TDM programs may be more difficult in such auto-dependent areas. Additionally, projects under ARC's "Expansion" investment area are receiving 22% of the total funding allocated in the RTP, including several state route widening projects, which may induce vehicular travel demand and undermine TDM efforts and related goals.

Funding Detail

Reliance on CMAQ funding (with limited scope of eligible projects) inhibits the ability of the TDM program to respond to the region's varied and rapidly evolving transportation needs beyond congestion management. The TDM program will need to consider diversifying funding/resources which could take the form of:

- Leveraging existing resources internal to ARC (aging, workforce development)
- Seeking additional state and/or federal funds beyond CMAQ (new opportunities with infrastructure bill)
- Partnerships with CIDs, human services organizations, and other stakeholders to reach new users and provide warm leads and creative incentives not typically allowed by CMAQ
- Private funding partnerships to support innovative pilot testing of TDM services to new or underserved travel markets

Funding Strengths	Funding Weaknesses
• **Regional commitment to TDM:** The regional TDM program allocates more federal funding than most regions toward commuter outreach. Local partners are going beyond matching ARC grants with additional funds and grants. • **Diverse funding sources**: Beyond CMAQ, TDM funding sources include tax allocation districts, private sector grants, and CIDs. The IIJA will provide a 37% increase in formula-based public transportation funding to Georgia. The Transportation Services Tax, enacted in 2020, levies a user fee on ground transportation and is expected to provide up to $45 million a year for transit infrastructure projects. • **Partnerships and joint funding**: Employers, TMAs, local governments, \ CIDs, and other private partners help deliver many TDM programs. • **Performance measurement**: The data driven program helps make a compelling case for TDM investments and increases the value proposition for TDM.	• **Competitive grants**: For the IIJA, many TDM-supportive funding opportunities are available only through competitive grants, which require a high level of effort to apply for with a relatively low likelihood of success. • **Limited TDM-specific funding**: The Atlanta Region's Plan allocates only 3% toward explicitly TDM-focused programs, in addition to 3% toward Walking and Biking within the Demand Management area, which may limit the capacity for program expansion, evolution, and impact. • **Transportation funding challenges**: Total federal funds have declined in the past four TIPs. State and local funding and fares represent a smaller percentage of operating revenues for the region compared to national averages. • **Challenges for under-resourced partners**: It can be difficult for under-resourced communities to put together funding applications, provide matching funds, and create "shovel-ready" projects, such as for LCI.
Funding Opportunities	Funding Threats
• **New funding opportunities**: New opportunities can diversify funding allocated to TDM and expand programming beyond the commute, including legislation that allows counties to introduce sales tax referenda for transit projects; the new state bond package; a rideshare per-trip fee; and the IIJA's expansion of project eligibility for HSIP, STBG, and CMAQ funds to support TDM. • **Strong partnerships**: CIDs, public health and human services organizations can provide warm leads and resources that are not typically allowed within the TDM implementation framework. Public-private partnerships offer access to funding, core audiences, and complementary infrastructure. Private investment may also bring new opportunities for TDM pilots and/or active transportation infrastructure. • **Ready to receive grants**: If additional grant funding is identified, GCO and the TMAs have "shovel-ready" pilots that are ready to be rolled out on a larger scale. • **ATLDOT funding**: As ATLDOT establishes a funding task force, there could be opportunities to pursue funding specifically for TDM programming.	• **CMAQ limitations**: Regional CMAQ guidance requires a focus on the commute trip, limiting the ability to expand services. There are also challenges with CMAQ local matches. • **Political support**: Political support can ebb and flow. It will be important to educate elected officials on the benefits of TDM. • **Federal funding risks**: Funding for some of the IIJA's TDM-supportive programs must be secured through the congressional annual appropriations process, making future funding less predictable.

Programmatic Detail

There is a noted shift in expressed, priority outcomes for the TDM program amongst TDM stakeholders, shifting from traditional benefits of congestion mitigation and air quality improvement to equitable access to opportunity and resources. As such, the TDM program will need to expand the trip types that it serves:

- Beyond traditional, 9-5 peak-period commute trips;
- To include strategies that support the full employment lifecycle to include access to job training, development, and job retention; and
- To support commute trips for an essential workforce that often reflects non-traditional, decentralized commute patterns and supports a lower wage workforce that is disproportionately impacted by transportation costs.

The TDM program will also need to expand the communities that it serves to include:

- Vulnerable communities and workers, including low-income, LEP, individuals with disabilities, older adults, veterans;
- Un/under employed;
- Youth and young adults that are building work, travel, and commuting habits;
- (Recent) immigrant populations that are building work, travel, and commuting habits; and
- Users without internet access (phone call and SMS-based services).

Expanding the TDM program to new markets will require a focus on mitigating "small barriers" that may impede understanding or efficient access to TDM services whether they are related to technology, language, or other social factors. There is an opportunity for the program to leverage lessons learned post-pandemic on what has worked and what has not, in terms of reaching the essential workforce, disadvantaged populations, or populations resistant to change or interventions.

Implementation of an expanded program will also require a strategic focus on integrated communications strategies to include:

- TDM communications that are coupled with other regional or local initiatives/campaigns/strategies related to housing, transit, health, economic/employment opportunity. This will support a broader communications network and present TDM services in the context of localized community need.
- A communications network that messages a connected and comprehensive TDM program through a spectrum of TDM partners and that aligns with other messaging campaigns.

Programmatic Strengths	Programmatic Weaknesses
• **TDM informational resources**: myGCO app, GCO's website, and other agency websites include information about commute options, how to transfer on transit, etc. Tools under development include Agile Mile and ATL Rides. MARTA and ATL offer a variety of trip planning tools. • **Measured impact**: TDM programs catalyze behavior change; among respondents who received any services from either GCO or a TMA, 64% took an action after receiving the service to try to change how they traveled to work. Despite losing half of regional TDM program active loggers since January 2019, GCO and employer partners have maintained monthly VMT reductions of over 40 million and ~2 million respectively. • **Programmatic offerings by community organizations**: Some community organizations offer mobility services to specific populations. Additionally, ARC and MARTA participate in TFA activities, enhancing the potential for more robust transit related TDM programs.	• **Program gaps for HST populations**: Paratransit, fixed route, and first/last mile coverage is geographically limited, and costs can be high. Mobility management approaches do not always incorporate HST populations or serve those without smartphones/cellphones. There is also a lack of amenities for transit, walking, and wheelchairs. • **Limited awareness and participation:** Only 15% of regional commuters knew of GCO (a decline from 23% in 2014). • **Lack of central information source – external**: There is not one clear hub of TDM information. There could potentially be confusion/redundancy with Agile Mile, ATL Rides, and additional tools pursued by TMAs for supporting localized TDM services. • **Lack of central information source – internal**: There is no centralized data hub or data management structure to maintain or distribute modal information. The ARC TDM Dashboard is not coordinated with data analytic tools/repositories.

- **Trip tracking**: While total program participation has declined, total clean commute logging increased from 1.5 million commute trips in 2019 to over 1.7 million in 2020 due to more telework and a new tool for commuters to log their rides that also included access to more prizes.
- **Collaborative approach and stakeholder support**: Stakeholder engagement in the TDM program shows that they value TDM as a tool to meet a wide range of goals.
- **Flexible evaluation framework:** The TDM evaluation framework provides flexibility to customize performance targets based on local conditions and tailored TDM strategies, without precluding performance evaluation at a consistent program-wide, regional scale.
- **Diversity of skillsets, tools, and experience represented in the TDM program**: The mobility services division addresses planning, programming, technology, and evaluation (including data and modelling). The TDM program is also supported by expertise from non-profits and consultants.
- **Evaluation and data collection**: The Atlanta regional TDM program has one of the most rigorous independent evaluation components of any TDM program in the country. Data collection practices have been implemented.

- **Limited political support and coordinated corporate leadership**: There is limited, consistent political support that is highly visible at the local or state level. There is also lack of coordinated corporate leadership for TDM.
- **Lack of consideration of new mobility trends**: Planning documents do not include much discussion of micro mobility and other new mobility trends.
- **Insufficient program analysis at site level**: In TDM policy guides, there is a lack of analysis of the strategies and program effectiveness and outcomes for the sites that implement them.
- **Performance measurement challenges**: Data needed to support the TDM evaluation framework is decentralized and distributed across multiple sources including employers, partners, and TDM service providers. There is insufficient data in TDM program reports on socioeconomic and sociodemographic characteristics of commuters and employers served, which could be collected through existing registration forms and surveys to track equity of the program.

Programmatic Opportunities	Programmatic Threats

- **Leverage existing partnerships**: Most Atlanta area TMAs are strongly aligned with a CID which provides a pathway to integrate TDM into developments. LCI relationships with employers, schools, and CIDs, there could be leveraged for TDM programming. Partners can also interweave TDM messaging into communications strategies. There could be opportunities to incorporate TDM elements into new investment programs such as SRTS with GDOT.
- **Implementation framework:** The TDM program would benefit from a clear organizational and implementation framework that showcases the roles and responsibilities for each element of the program.
- **Expand active transportation, transit use, and teleworking**: Additional investments in service and infrastructure for bicyclists, pedestrians, and transit are identified by the RTP.
- **Technology collaborations**: Agencies can share technologies, use interoperable technologies, and/or consolidate traveler tools into one app directly and to connect with TDM initiatives – such as linking it to incentives programs, adding vanpool options, etc.
- **Organizational capabilities**: ARC has an aging division, workforce development, funds studies and offers significant opportunity for GCO and TMA partnerships to deliver improved services to diverse audiences.
- **Employer and commuter interest in TDM programs/incentives**: Remote Work Survey interviews found employer demand for regional coordination and GCO support. Respondents were motivated by incentives to change behavior. The top GCO service used was information on commute options, followed by the "Gimme Five" financial incentive program.

- **Focus on capacity expansion**: The RTP project list includes several state route widening projects and GDOT 2050 emphasized capacity expansion; induced demand may undermine TDM efforts and related goals, particularly if more funding is routed toward increased roadway capacity.
- **Climate change**: Climate-related risks to the Atlanta region are growing. More extreme or unpredictable weather events, for example, could have drastic impacts on transportation infrastructure and subsequently travel options. As such, these risks pose a threat to the regional TDM program impacts and reach if other priorities take precedent.
- **Declining participation**: Total program registration has been declining even before the pandemic according to the TDM program dashboard.
- **External data agreements:** Potential issues with external data agreements with service providers for ATL Rides and Agile Mile.
- **Lack of policy mandates:** Engagement with TDM is voluntary in the Atlanta region; there are few regulations or mandates.
- **Difficulty of influencing non-commute trips:** Non-commute trips are less routine, and without employers, and more difficult for the TDM program to influence through traveler outreach and incentives.
- **Unintended consequences of telework on congestion:** Drive-alone commuters may tolerate longer commutes and more traffic congestion when they are commuting less frequently.

Economic Detail

The COVID-19 pandemic has caused a dramatic increase in telework, teleservices and home deliveries with significant impacts on traditional travel patterns. This has impacted work and non-work trips as well as truck and freight-related trips given the sharp increase in e-commerce and associated changes to the consumption and distribution of goods. This will have long-lasting impacts on travel patterns and the regional economy. The pandemic also served as a catalyst for a growing divide between available job opportunities and available, trained, and motivated workforce.

While the pandemic has enabled much of the region's white-collar workforce to shift to telecommute, many of the region's jobs (and forecasted employment growth post-pandemic) are in essential industries that require in-person services and on-site laborers; i.e., requiring a commute – even if non-traditional. Many of these industries comprise lower-wage jobs, often decentralized from the urban or metropolitan core, supported by a labor market disproportionately impacted by transportation costs. Investment decisions for new or expanding employers are often driven by consideration of access to transportation and a trained workforce.

As such, reliable transportation options beyond personal vehicles are a critical need for workforce development and regional economic success. Advancing transportation strategies that support non-automobile travel will, in fact, be a requisite focus for advancing economic equity for employees that work within these growing employment markets. TDM will need to evolve to support economic and workforce development needs that require a more flexible, equitably distributed service model.

Economic Strengths	Economic Weaknesses
Community Improvement Districts: Most Atlanta area TMAs are strongly aligned with or are a program of a CID. CIDs recognize that innovation is often required for economic development. CIDs are nimbler than most government agencies and can react faster to disruption. **Adaptability**: TDM programs have adapted to telework opportunities and maintained relevancy during the evolving conditions of the pandemic. **Strategic partnerships:** GCO could partner with new employers and offer incentives to new employees as the region grows. Partnerships with workforce development organizations can make GCO's value proposition stronger. There are opportunities to engage with the regional CID alliance and Council for Quality Growth, and to collaborate with employers to offer transit passes and to promote ATL Rides. **Planning and policy support for healthy and livable communities**: The TDM evaluation program can expand on the four objectives within the healthy and livable communities goal area, particularly expanding TDM services to transportation disadvantaged populations and improving regional health.	**Focus on "traditional" commute**: As the COVID-19 pandemic and other social and technological trends create rapid changes in the workforce, TDM programs and infrastructure still focus largely on white-collar 9-5 commutes. **Communicating the value proposition of TDM**: Planning and policy partners at all scales of government need to understand the economic return on TDM and how it can support local and statewide economic development initiatives. At the employer or site level, there is lack of evidence on employee valuation of TDM and parking-related benefits compared to other benefits (e.g., free parking compared to wellness initiatives).
Economic Opportunities	Economic Threats
Telework trends due to pandemic: Amid the recent increase in telework, teleservices, and home deliveries, there may be opportunities to increase the share of employees telecommuting or using teleservices over the longer term. **Growth trends**. There is opportunity to channel high population and employment growth into smart growth development.	**Decline in transit ridership during pandemic:** MARTA rail ridership declined 70% and bus ridership declined by 50% during the pandemic. Within the TDM program, there was a 42 percent decrease in transit passes sold in 2020 across all transit providers. Overall commuting (all modes) declined by 30%. **Workforce access barriers for vulnerable populations:** Overall, workers in EJ areas are less likely to have any kind of equipment that enhance work or commute flexibility in

- **Serve all workers:** TDM will need to evolve to support an economy and workforce development needs that require a more flexible, equitably distributed service model. Many of the region's jobs (and forecasted employment growth) are in essential industries that require in-person services and on-site laborers. The need for a stable workforce makes recruitment and retention a primary issue; TDM can help address the commute piece of the puzzle.

their homes. Specifically In the 2020 Metro Atlanta Survey results, 37.1% of respondents in DeKalb County and 30.6% in Clayton County reported that they frequently lack transportation to get places they need to go.
- **Telework stability**: Threats to telework success include employee concerns (struggle to unplug from work has worsened during the pandemic) and managerial concerns about declining staff morale.
- **Job access:** Atlanta ranks 91st in transit access to jobs out of the 100 largest metropolitan regions. Less than 4% of jobs can be reached in a 45-minute transit trip. This sets the region up for automobile dependence, and TDM programs may have to be particularly competitive with personal vehicle travel to be successful.

Modal Detail

Fixed-route transit does not currently meet the broad range of mobility and access needs of transit-dependent residents or "choice" riders, especially in suburban and rural parts of the region. Additionally, the decline in transit ridership during the pandemic is expected to persist, which has compromised transit revenues and capacity to maintain service levels. There is need for alternative solutions (first/last mile and/or complete trip) to fill in transit gaps, particularly to support connection to vital economic, health, or other social resources. The Atlanta region's land use and transportation systems are built for driving, disconnected, and often overwhelming to navigate for a broad range of socio-demographic markets. This creates a difficult context for TDM to reduce vehicle travel and increase travel choices, but it provides ample opportunity for TDM to provide system connections.
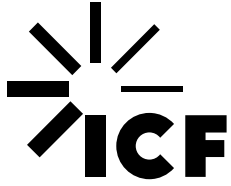
To maximize the benefits of TDM initiatives, strategies will need to expand access and education on the transportation system, inclusive of transit and TDM services. In parallel, TDM policy will need to guide regional and local activities designed to reshape the built environment with more dense, mixed-use, and multimodal development patterns to include complementary transit-oriented development and first and last-mile infrastructure investments.

Modal Strengths	Modal Weaknesses
• **Multimodal trends:** Non-SOV commuting is becoming increasingly common. Among respondents to the 2020 RCS, there was a net increase of 65% of individuals starting or increasing telework. While every other mode declined, the largest decline was driving alone (net decrease of 55% of individuals). • **ARC's integrated and localized planning methods:** ARC has created many resources to help local agencies enhance and expand active transportation and multimodal connectivity. ARC's plans are data-driven and emphasize equity. • **Commitment to multimodal mobility:** The share of federal funds in each TIP for active transportation projects has increased over the past four TIPs. Local, state, and regional safety plans emphasize multimodal safety. ARC requires that all TIP projects are consistent with Complete Streets principles. • **Strategic active transportation investments**: ARC is focusing investments in areas that enable short trips, taking an opportunistic approach to complete streets with federal funding, and supporting local efforts.	• **Connectivity and safety**: Regional plans found that connectivity and safety concerns continue to impede multimodal mobility. • **Minimal discussion of vanpools, demand response services, and TNCs**: Many planning documents only briefly mention these modes, potentially missing opportunities for greater coordination and expansion. TNCs represent both a threat and an opportunity for multimodal mobility in the region, but documents do not cover them in depth. • **TDM services/benefits are not sufficient to induce stable mode shift**: Overall, TDM services/benefits did not appear to be motivators for 2019 RCS respondents to increase their use of commute options. • **Limited ATDM applications:** There is limited application of Active TDM (ATDM) and integration of transit and other modes in corridor management, e.g., through advanced traveler information about transit, park-and-ride availability, and on-demand transit. • **Technological gaps:** The region lacks a consolidated platform to share mobility option data, an integrated multimodal electronic payment and reservations system, and multi-modal technology applications with advanced traveler information. • **Monthly fares and discounts lack flexibility:** Transit, vanpools and parking discounts are only available for monthly passes, which do not provide flexibility to those who have alternative work schedules or telework part-time.
Modal Opportunities	**Modal Threats**

- **Collaboration**: There are many opportunities to collaborate, such as with community groups on demographic-specific programs and with schools on SRTS programs. Private organizations can help identify projects, secure funding, and build community support. Collaboration with transit providers can improve active transportation access to transit stops. Existing Park and Ride lots have capacity that can be used for vanpools. There is support among stakeholders for ARC to serve as a regional convener and facilitator.
- **Leverage safety efforts**: Many safety initiatives emphasize alternative modes. ARC could leverage TDM efforts to promote safety in the region and could leverage safety efforts to promote TDM.
- **TSMO efforts**: ARC's TSMO initiative to Strengthen TSMO Planning and Institutions could also strengthen TDM through a TSMO committee, increasing project visibility and prioritization, tools and guidance for local partners, integrations with local and regional planning, and incorporating freight. There are opportunities to expand the focus of TSMO beyond optimizing travel on the road network into optimizing people movement via shared modes, and even avoiding trips altogether through telework.
- **Micro mobility**: There has recently been a proliferation of shared use bike and micro mobility vehicles to augment traditional mobility options, providing new, low-cost alternatives that can help to improve connections to public transit and support more efficient trips.
- **Active transportation**: Mobility Services and GCO could facilitate the creation of daily commuter walking or cycling groups. Elements of gamification, like the 'Biketober' challenge, could further be implemented here—for example, similarly-sized employers participating in TDM programs could 'compete' against one another in their commuting habits. The Regional Trail Vision and local organizations' commitment to connecting the regional trail network present opportunities to expand active transportation infrastructure.

- **Long-term regional SOV and HOV trends**: The RTP projects growth in SOV mode share and decline in HOV mode share.
- **Free/subsidized parking:** From the 2019 RCS, 80% of commuters park for free at work. TDM programs and financial incentives typically are not enough to move commuters from driving alone when parking is free.
- **Transit service gaps:** Gaps in transit network coverage and schedules undermine ridership. 75% of non-transit riders indicated that they did not have access to transit for their commute trip. 11% percent have access, but their work schedule cannot accommodate a transit trip (2019 RCS).
- **Pandemic effects on shared modes:** The decline in transit ridership during the pandemic is expected to persist, which has compromised transit revenues and capacity to maintain service levels. Among 2020 RCS respondents who commuted by transit, carpool, or vanpool prior to the pandemic, 46% said they will use those modes less often or stop altogether due to health concerns.
- **Car culture:** The Atlanta region overall has a "car culture" and low-cost parking compared to other large metro regions, which creates challenges in encouraging alternatives to driving alone.
- **New modes**: The rise of transportation network companies and CAVs may be a threat to transit, bicycle, and pedestrian mode share.
- **Infrastructure gaps**: Infrastructure needs include supporting new mobility options to incentivize use, recoup costs, effectively manage street space, and reduce lanes blocked by private services or deliveries. There are limited technology deployments focused specifically on pedestrian and bicyclist safety.
- **Inequitable access**: There are inequities in access to alternate modes as well as in safety. Communities that need active transportation and transit infrastructure the most often do not have access. Atlanta is ranked as one of the 10 most dangerous places to walk. Bike crashes occur disproportionately within Equitable Target Areas.

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