



# Coordinated Public Transit–Human-Services Transportation Plan for Delaware

July 2020

*Published by*  
 Institute for Public Administration  
 Joseph R. Biden, Jr. School of Public Policy and Administration  
 University of Delaware

*Prepared for*  
 Delaware Transit Corporation, an operating division of the  
 Delaware Department of Transportation



UNIVERSITY OF DELAWARE  
 BIDEN SCHOOL OF PUBLIC  
 POLICY & ADMINISTRATION

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July 2020

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## Preface

Personal mobility is often taken for granted, but it is essential to one’s quality of life. Reliable transportation is needed to connect Delawareans to jobs, education, health care, social and community services, and other life-sustaining services. Yet, many Delaware residents are unable to provide their own transportation or have difficulty accessing public transportation. Transportation-disadvantaged individuals may face barriers to reliable transportation due to disability, income, age, inability to drive, lack of car ownership, veteran status, or a combination of reasons.

As the Director of the Institute for Public Administration (IPA) at the University of Delaware, I am pleased to provide the 2020 update of the *Coordinated Public Transit–Human-Services Transportation Plan for Delaware* (i.e., Coordinated Plan). The Coordinated Plan was produced in cooperation with the Delaware Transit Corporation (DTC), a division of the Delaware Department of Transportation (DelDOT), that operates DART First State Transit. The plan outlines how DTC, human-services transportation providers, state agencies, state-appointed councils and committees, transportation-planning partners, social service agencies, the medical community, advocates for vulnerable and special needs populations, community interest groups, and other stakeholders can work together to improve mobility for individuals with special transportation needs throughout Delaware.

This project was conducted in collaboration with and support from DelDOT and DTC. IPA is grateful for the assistance and support of John Sisson, DTC Chief Executive Officer; Marcella Brainard, DTC Brokerage Manager; Catherine Smith, DTC Planning and Development Manager; Julie Theyerl, DTC Chief Customer Experience Officer; Sharon Williams, DTC Marketing Outreach Manager; Kathleen Grier, RideShare Delaware Project Manager; and Amy Reardon, RideShare Delaware Outreach Coordinator. IPA Policy Scientists Julia O’Hanlon and Marcia Scott served as Project Managers and Principal Investigators for this work. Several IPA Public Administration Fellows (PAFs) conducted research and assisted in drafting sections of the plan including Alexa Timmreck, Danielle Littmann, and Madison Matera with additional support from Kelly James and Allison Michalowski. We are grateful for other PAFs who helped to analyze survey outcomes, conduct or summarize outreach and engagement initiatives, or design *Mobility in Motion* branding and marketing materials. I would also like to thank IPA Policy Scientist Lisa Moreland Allred and Assistant Policy Scientist Sarah Pragg for their superb editorial and formatting assistance.

Jerome R. Lewis, Ph.D., Director, Institute for Public Administration

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## I. Executive Summary

Limited access to transportation can affect the health and economic vitality of Delawareans and disproportionately affect older adults, people with disabilities, individuals of low income, or other transportation-disadvantaged populations.<sup>1</sup> The need to coordinate human-services transportation in Delaware has been a topic of study for over a decade. Several reports and plans detail issues concerning human-services transportation coordination, advancing mobility management, and addressing rising costs and transportation-service inefficiencies.

Public transit agencies and human-services transportation partners across the nation have implemented various transportation coordination strategies to improve mobility options available to transportation-disadvantaged populations, including older adults, persons with disabilities, low-income populations, veterans, non-drivers, and no-car households. Moreover, transportation access has been linked to employment rates, health outcomes, and economic and social opportunities. Hence, reliable, safe, and affordable transportation can provide transportation equity.

This *Coordinated Public Transit–Human Services Transportation Plan*, or “Coordinated Plan,” for the State of Delaware was developed through a participatory planning process and serves as a strategic framework for addressing the state’s existing and future mobility needs. It is aligned with and conforms to the current federal framework focused on the need to enhance mobility for all transportation-disadvantaged populations (e.g., older adults, persons with disabilities, veterans, low-income individuals, non-drivers, and no-car households). Specifically, the plan responds to the Fixing America’s Surface Transportation (FAST) Act, which was enacted in 2015 and provides increased emphasis on advancing mobility management practices and projects, including those related to the Enhanced Mobility of Seniors and Individuals with Disabilities Program (herein referred to as the Section 5310 program).

Beginning in Fiscal Year (FY) 2016, the Delaware Transit Corporation (DTC), with research support and facilitation assistance from the University of Delaware’s Institute for Public Administration (IPA), launched a multi-phased work plan to evaluate the state of mobility and specialized transportation services coordination in Delaware. Additionally, extensive community outreach was conducted to better understand and develop recommendations for the implementation of policies and partnerships designed to improve Delaware’s specialized transportation and mobility management framework. These efforts aided DTC in officially

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<sup>1</sup> While there is not a universal definition, transportation-disadvantaged populations include but are not limited to older adults, persons with disabilities, veterans, non-drivers, households lacking cars, and low-income individuals.

launching its *Mobility in Motion* initiative and invited Delawareans to envision and provide critical input on the future of mobility in Delaware.

Outcomes of the preliminary research and outreach work are detailed in the report titled [\*Evaluating the State of Mobility Management and Specialized Transportation Coordination in Delaware\*](#) and identify recurring themes and challenges related to the state’s evolving mobility demand drivers, demographic trends, and transit costs. Thereafter, a more [formalized outreach plan](#) was developed and implemented in 2018 by IPA that involved both high-touch and high-tech outreach and engagement strategies, including the facilitation of three surveys. Outcomes of these surveys are highlighted in the following documents: [\*Survey Outcomes: Delaware Section 5310 program Funding Subrecipients\*](#) and [\*Outcomes Report: Delaware Transportation Needs Assessment Survey\*](#). Results of these surveys, a Snapshot Survey, and other high-touch and high-tech engagement initiatives, are summarized in the Community Outreach and Public Involvement section of this plan and were used to inform DTC and its appointed *Mobility in Motion* Technical Advisory Committee (TAC). This formal group of representative stakeholders is charged with helping the agency meet new federal requirements while providing strategies and considerations for updating the Coordinated Plan.

Between February and October 2019, the TAC met four times to review all aforementioned materials and consider national and regional best practices to address Delaware’s current public transit challenges and gaps. The group also offered additional perspectives related to advancing a more innovative and consumer-driven mobility framework. Meeting materials are documented on DTC’s *Mobility in Motion* webpage ([www.MobilityDE.org](http://www.MobilityDE.org)). Final considerations and prioritized strategies were obtained in the October meeting and included as part of this plan’s recommended strategies. In accordance with federal requirements and national best practices, DTC looks forward to a continuous relationship with identified partners on implementing these strategies over the next five years.

## II. Introduction

To adhere to the requirements of the Federal Transit Association (FTA), the Delaware Transit Agency (DTC) has updated its *Delaware Statewide Action Plan to Coordinate Human-Services Transportation* (i.e., Statewide Action Plan). An assessment of Delaware’s human-services transportation system has not been conducted for more than a decade. As an outcome of a United We Ride self-assessment process, the 2007 plan recognized the need to enhance coordination and integrate services to better serve transportation-disadvantaged population in Delaware. The need for a plan update was revealed in the June 2017 publication of *Evaluating the State of Mobility Management and Specialized Transportation Coordination in Delaware* (<http://bit.ly/32z6IYA>) by the University of Delaware’s Institute for Public Administration (IPA) in cooperation with the Delaware Transit Corporation (DTC), an operating division of the Delaware Department of Transportation (DelDOT).

Subsequently, IPA published the *Public Outreach and Engagement Plan to Develop a Coordinated Public Transit–Human-Services Transportation Plan for Delaware* (i.e., outreach and engagement plan) in December 2017 (<http://bit.ly/2Xo3tvz>). The outreach and engagement plan formed the basis of the *Mobility in Motion* initiative, which invited Delawareans to envision and provide critical input on the future of mobility in Delaware. The initiative was administered by IPA and launched in collaboration with DTC and support from RideShare Delaware. The plan was designed to meet federal mandates for a participatory planning process. Accordingly, the process identified and engaged stakeholder groups including transportation planning partners, passengers and advocates, human services partners, community-based organizations, and other groups. It devised high-touch (in-person) and high-tech (web-based, electronic) strategies to maximize input and reach.

### **Goals of Planning Process**

An updated Coordinated Plan for the state of Delaware has been developed to achieve the following goals:

- Provide a framework to distribute formula funding under the FTA’s Enhanced Mobility of Seniors and Individuals with Disabilities Program (49 USC, §5310).
- Create an action framework to better address transportation barriers and gaps.
- Inform efforts to coordinate services and/or share resources.
- Promote customer-centered mobility strategies.
- Support innovative projects/programs.

## Required Elements

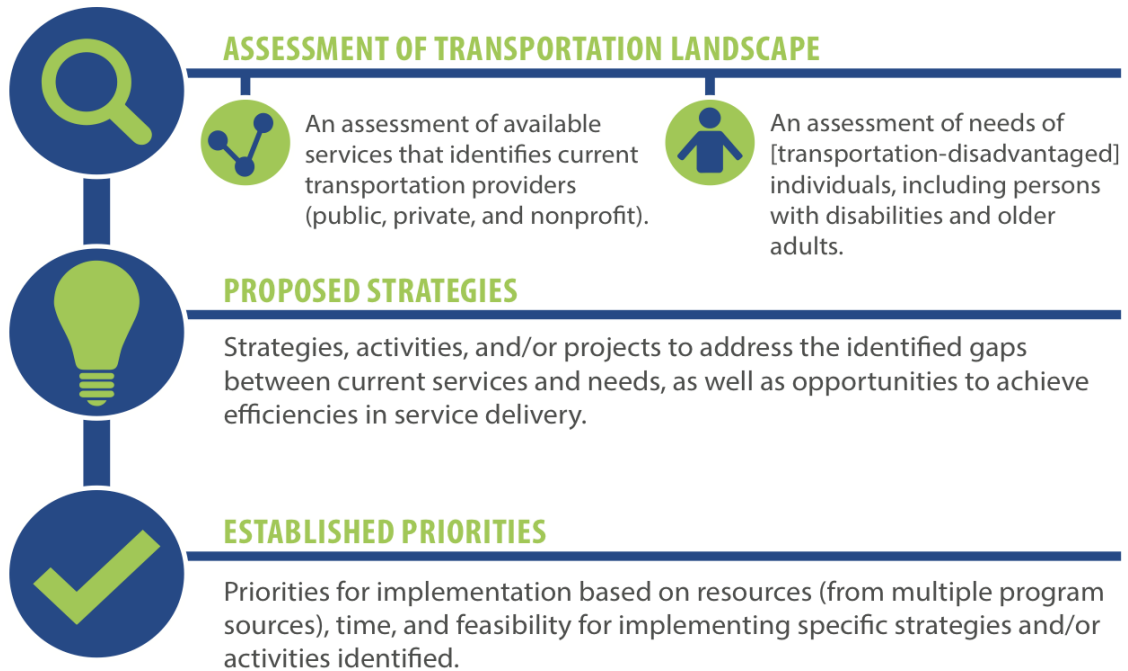
Federal transit law requires that projects selected for funding under the Section 5310 program must be “included in a locally developed, coordinated public transit–human services transportation plan,” and that the plan be “developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers and other members of the public” utilizing transportation services. These coordinated plans identify the transportation needs of transportation-disadvantaged individuals, provide strategies for meeting these needs, and prioritize transportation services for funding and implementation.

In addition to being developed through a participatory planning process, a coordinated plan must follow the same plan update schedule as transportation improvement programs (TIPs) prepared by metropolitan planning organizations (MPOs). A coordinated plan must adhere to the following key requirements established by the Federal Transit Administration (FTA) (FTA, 2014) and as illustrated in Figure 1:

- An assessment of the existing transportation landscape, including:
  - An assessment of available transportation services that identifies current transportation providers.
  - An assessment of transportation needs of [transportation-disadvantaged] individuals, including persons with disabilities and older adults.
- Strategies, activities, and projects to address identified gaps between current services and needs, as well as opportunities to achieve efficiencies in service delivery.
- Priorities for implementation based on resources (from multiple program sources), time, and feasibility for implementing specific strategies and/or activities identified.

Figure 1: Key Elements of a Coordinated Plan

## KEY ELEMENTS OF A COORDINATED PLAN



This plan summarizes the results of a participatory planning process branded “*Mobility in Motion*,” which was designed to:

- Respond to changing mobility landscape.
- Understand transportation barriers facing Delaware’s diverse populations.
- Engage stakeholders in developing solutions for all, including transportation-disadvantaged individuals.
- Consider strategies that align with the Delaware Long Range Transportation Plan, “Innovation in Motion.”

This Coordinated Plan is intended to capture broad-based input from the general public and targeted stakeholder groups. It establishes the framework for potential future planning and coordination activities. Importantly, the Coordinated Plan provides an opportunity for DTC to prioritize strategies that can be approached on a statewide and/or regional level. This plan offers potential strategies and priorities for projects that target transportation-disadvantaged populations.

## Plan Organization

In addition to the Executive Summary, this plan adheres to the key requirements of a coordinated plan established by FTA and is broken into ten sections.

**Introduction** – Details the goals of the planning process, the key elements of a coordinated plan, and the layout of the coordinated plan.

**Planning Framework** – Explains the planning framework and requirements needed to prepare a coordinated plan under federal surface transportation law. The framework considers the public transit requirements under the Americans with Disabilities Act (ADA), an evolution to mobility management, and strategic priorities identified within *Innovation in Motion*, the Delaware Department of Transportation’s (DelDOT) 2019 Long Range Transportation Plan (LRTP).

**Literature Review and Best-Practice Research** – Highlights “best-practice” research, which refers to a systematic process that was used to identify, describe, and evaluate potentially replicable strategies to address mobility management issues. Nine thematic areas were identified as possible strategies to address mobility gaps and barriers in Delaware.

**Inventory of Transportation Providers** – Lists and describes transportation programs and services available in Delaware by a range of public, private, and nonprofit providers. A matrix of transportation providers is included in the Appendix.

**Assessment of Transportation Needs** – Focuses on demographic trends and related transportation and mobility challenges facing Delaware’s transportation-disadvantaged individuals—specifically older adults, low-income individuals, people with disabilities, veterans, and minorities. Another important consideration is emergency planning for vulnerable populations. Emergency planning efforts consider transportation needs to provide vulnerable populations access to services, evacuation routes, and shelters during a weather emergency, natural/man-made disaster, or public health emergency.

**Community Outreach and Public Involvement** – Details the implementation of the 2017 *Public Outreach and Engagement Plan to Develop a Coordinated Public Transit–Human-Services Transportation Plan for Delaware*. Branded “*Mobility in Motion*,” the engagement and outreach initiative was conducted over a 13-month period. Research, public information, and both high-touch (in-person) and high-tech (web-based/electronic) activities provided ample opportunity for diverse and inclusive engagement.



**Mobility Needs and Gaps** – Incorporates the outcomes of community outreach initiatives and input from members of the *Mobility in Motion* Technical Advisory Committee (TAC) to identify key transportation barriers, gaps, and challenges in Delaware. The following transportation gap-areas were defined and categorized: Spatial Gaps, Temporal Gaps, System and Operation Gaps, Infrastructure Gaps, and Educational/Awareness Gaps.

**Strategies to Address Mobility Needs and Gaps** – Describes identified goals, a prioritization methodology, and potential strategies to address current service gaps and opportunities for improvements. Based on TAC recommendations, it outlines an implementation plan with short-term (by 2025) and long-term (by 2030) priorities.

**Conclusion and Path Forward** – Provides a synopsis of work conducted and information on next steps and specific action items for DTC and the agency’s specialized transportation partners.

**Appendix** – Provides essential background on the research process, documentation of the participatory planning process, summaries of TAC meetings, and other materials pertinent to the development of the Coordinated Plan.

### III. Planning Framework

#### *Federal Policy Landscape*

As part of its work that led to the publication of the 2017 *Evaluating the State of Mobility Management and Specialized Transportation Coordination in Delaware* report, IPA researched the planning and policy landscapes currently directing and advancing the national mobility management framework. This included an overview of the Section 5310 program, as well as the federal Americans with Disabilities Act (ADA), which was enacted as a civil rights law in 1990. In the mid-2000s, the “United We Ride (UWR)” was initiated. Federal surface transportation legislation, beginning with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, imposed new planning and program requirements for coordinated transportation under the Section 5310 program.

Federal surface transportation law, as amended by 2015’s Fixing America’s Surface Transportation (FAST) Act, retains the same planning requirements identified under MAP-21 for the Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310). Section 5310 remains the only funding program with coordinated planning requirements under the FAST Act. In relation to the development and/or update of a Coordinated Public Transit–Human Services Transportation Plan (i.e., coordinated plan), the FAST Act requires that (FTA, 2016):

- Projects selected are “included in a locally developed, coordinated public transit–human-services transportation plan.”
- A coordinated plan “was developed and approved through a process that includes [inclusive] participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human service providers, and other members of the public.”
- “To the maximum extent feasible, the services funded will be coordinated with transportation services assisted by other Federal departments and agencies.”

#### **Section 5310 Funding Priorities**

Designated recipients of federal Section 5310 funds have a dual responsibility to (1) develop and update a coordinated plan, which will inform Section 5310 program funding decisions based on identified strategies and (2) administer the Section 5310 program. In addition, direct recipients have the discretion to select subrecipient projects based on a formula-based and/or competitive process. Federal guidance for Section 5310 (FTA Circular [C] 9070.1G) requires that funding recipients develop a state Program Management Plan (PMP) to facilitate the application process, grant management, and oversight of the program. State PMPs ensure a fair

and equitable distribution of available funds, effective program administration, and adequate monitoring of specialized transportation grant programs. Moreover, the plan ensures that all applicable policies, statutes, and regulations are followed and provides:

- Program guidance to local project applicants and subrecipients of funds.
- Public information on administration of the program.
- A basis for FTA to perform management reviews of Section 5310 program administration.
- An assurance that requirements of the Title VI of the 1964 Civil Rights Act are addressed in the administration of FTA program.

Section 5310 recipients are responsible for administering a project selection process, determining the eligibility of applicants, and conducting an initial review of applications. Many Section 5310 recipient agencies/entities form an advisory committee. Comprising diverse stakeholders and organizations, such committees may be charged with reviewing and evaluating proposed [non-traditional or innovative] projects based on criteria that reflect coordinated plan investment priorities. Section 5310 fund recipients are responsible for program administration, including:

- Developing project application procedures and resources.
- Notifying prospective applications of the availability of funds and the application process.
- Determining applicant eligibility.
- Establishing a [possible competitive] application process, scoring, and selection criteria.
- Selecting projects for funding and allocating funds to subrecipients on a fair and equitable basis.
- Establishing performance indicators and monitoring procedures.
- Developing program administration oversight (e.g., performance and progress reports, asset management, audits and site visits).
- Submitting an annual program of projects (POP) and grant application to FTA.

### **Eligible Section 5310 Projects and Activities**

Under the FAST Act, the coordinated plan continues to be emphasized as the foundation for enhanced mobility and mobility management projects. The program (49 U.S.C. 5310) provides formula funding to states for the purpose of assisting human-services organizations in meeting the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. Direct recipients, like DTC, have flexibility in how they select subrecipient projects for funding, but their decision process must be clearly noted in a program management plan (PMP). The

selection process may be formula-based, competitive, or discretionary, and subrecipients can include states or local government authorities, private nonprofit organizations, and/or operators of public transportation.

Under the federal guidelines,

- **A minimum of 55% of Section 5310 funds MUST be spent on *traditional* projects** – These are defined as public transportation capital projects that are planned, designed, and carried out to meet specific needs of seniors and individuals with disabilities when “public transportation is insufficient, unavailable, or inappropriate” (FTA C 9070.1G, 2014).
- **Up to 45% of Section 5310 funds may be spent on *other* projects**, such as were eligible under the New Freedom (5317) program, and focus on enhancing mobility management activities to promote, coordinate, and facilitate transportation-service access for individuals with disabilities, seniors, low-income individuals, and other transportation-disadvantaged persons.
- **Up to 10%** may be spent on program administration.

States or local governments that operate a public transportation service and are eligible to receive direct grants under 5311 (Rural Transportation Assistance Program) or 5307 (Urbanized Areas Formula Grants) are now eligible to receive Section 5310 funding for non-traditional projects. Figure 2 outlines eligibility requirements of Section 5310 subrecipients and types of eligible traditional and non-traditional projects.

**Figure 2: Section 5310 Traditional and Non-Traditional Projects**

<p style="text-align: center;"><b>Traditional Section 5310 (Capital) Projects At Least 55% of Allocation</b></p>	<p style="text-align: center;"><b>Non-Traditional Section 5310 Projects Up to 45% of Allocation</b></p>
<ul style="list-style-type: none"> <li>• Open to private nonprofit organizations and/or state or local governments</li> <li>• Vehicle procurement (buses, vans, accessible taxis)</li> <li>• Approved vehicle overhaul</li> <li>• Support facilities and capital equipment (e.g., computer hardware/software, transit-related IT, dispatch systems, fare-collection systems)</li> <li>• Support for mobility management and coordinated programs (public transportation and human-services transportation)</li> <li>• Cost of leased or contracted transportation services</li> <li>• Lease or purchase of equipment and/or passenger facilities (e.g., lifts, ramps, securement devices, benches, shelters)</li> </ul>	<ul style="list-style-type: none"> <li>• Open to private nonprofit organizations, state or local governments, public-transit operators, and/or private companies providing shared-ride transportation</li> <li>• Enhanced travel training</li> <li>• Volunteer driver and aide programs</li> <li>• Enhancements to pedestrian infrastructure (e.g., sidewalks and curb cuts), pedestrian signals, and/or way-finding IT</li> <li>• Mobility management programs</li> <li>• Bus stop and pedestrian accessibility improvements</li> <li>• One-call/one-click call travel information portal/trip planning systems: Operation of coordinating transportation brokerages, coordination of ridesharing and vanpooling programs</li> </ul>

**Analysis of Section 5310 program Competitive Selection Frameworks**

Since federal funding is limited while subrecipient demands continue, many direct Section 5310 recipient agencies (like DTC) have established a competitive selection framework with an evaluation process, scoring criteria, and performance measures. Recipients have the flexibility as to how subrecipient projects are selected for funding, but the decision-making process must be clearly stated in a state program management plan (PMP).

To illustrate how other state transportation departments (DOTs), Metropolitan Planning Organizations (MPOs), and Regional Councils/Councils of Government (RC/COGs) use the coordinated plan framework to prioritize strategies and allocate Section 5310 program funds, a literature review was conducted. Coordinated plans that were developed or implemented after the December 2015 adoption of the federal Fixing America’s Surface Transportation (FAST Act) were identified as best-practice models. Competitive selection frameworks were assessed to determine how application processes, scoring, and other criteria are being used by some agencies to strategically allocate Section 5310 program funds to local subrecipients (see Appendix A, Analysis of Best Practice Section 5310 Programs and Competitive Funding Selection

Frameworks). Often, scoring criteria were different for Traditional Section 5310 (Capital) Projects and Non-Traditional Section 5310 Projects. Among the Section 5310 program competitive selection frameworks analyzed were those categorized as:

- **DOTs** – New York State DOT, Arizona DOT, Maryland Transit Administration (MTA) of the Maryland Department of Transportation (MDOT), and Wisconsin DOT
- **MPOs** – Durham-Chapel Hill-Carrboro MPO (North Carolina) and San Diego Association of Governments (California)
- **RCs/COGs** – East-West Gateway COG (St. Louis, Missouri) and Ohio, Kentucky, and Indiana (OKI) COG

### “Project Threshold” or Pre-Eligibility Criteria

Several Section 5310 recipients have established project *threshold* criteria that must be met in order for an applicant to apply for Section 5310 funding. Threshold, or pre-eligibility criteria, are not part of the project evaluation or scoring criteria and may include:

Attendance at required Section 5310 program workshops, webinars, or information sessions.

Submission of complete application by deadline.

Other requirements such as required participation in coordinated plan updates and/or whether applicants receiving prior Section 5310 funds have submitted the required performance and progress reports, passed audits/site visits, completed financial reporting and other program administration oversight procedures.

### Project Evaluation Criteria

1. **Responsiveness to Coordinated Plan Strategies Criteria** – To align with federal requirements, Section 5310 projects must continue to be identified and included in a “locally developed” coordinated plan and organized with other federally assisted programs. Scoring criteria may be based on:
  - Extent to which the proposed project addresses transportation gaps and/or responds to high-priority needs or strategies identified in a coordinated plan.
  - Degree to which the proposed project will increase and/or deliver benefits to target populations.
  - Scope of organization’s participation in the process to prepare or update the coordinated plan, attendance at Section 5310 grant workshops, level of involvement in coordinating services/resources with other agencies, and evidence of executive-level support for transportation coordination.
  - Extent to which project serves seniors, persons with disabilities, and other transportation-disadvantaged populations (e.g., veterans, those needing non-emergency medical transportation, low-income populations, no-car households).

**2. Project and Financial Management Criteria** – Financial capacity is an important criterion for qualifying for a grant under the Section 5310 program. Many 5310 recipients require subrecipients, as part of the grant application and evaluation process, to verify their financial capacity to carry out the proposed project. Section 5310 program applicants may be required to:

- Demonstrate benefits to users (e.g., cost per customer served).
- Provide a local match – Local matches may vary by program and funding type; FTA allows local matches from other federal programs that support transportation; when funds are leveraged in this way, programs can be a one hundred percent (100%), federally funded program (FTA, 2016).
- Track eligible expenses – Accounting procedures should be prepared to track and verify eligible expenditures through an annual audit.
- Conduct financial reporting – Adequate financial procedures, recordkeeping, and reporting systems must account for program expenditures.
- Provide performance measures – Project progress reports and close-out reports should show performance outcomes and metrics.
- Demonstrate experience managing transportation services for transportation-disadvantaged populations.

**3. Coordination Criteria** – Coordinated transportation occurs when agencies, jurisdictions, and nonprofit organizations work together to eliminate duplications to improve the quality of service and maximize transportation services for transportation-disadvantaged individuals. Section 5310 grant applicants may be evaluated, or awarded points, based on the extent to which their organization or agency:

- Establishes partnerships with other agencies or organizations to coordinate transportation services.
- Shares information with other agencies or transportation service providers.
- Shares resources such as vehicles, facilities, technology, or training.
- Reduces duplication of services.
- Reduces reliance on paratransit services.
- Shares, coordinates, consolidates, or leverages transportation services with other agencies or specialized transportation providers.
- Improves communication among agencies and providers through new technologies and coordinated services to improve frequency, travel time, and availability of specialized services.
- Coordinates transportation activities within a mobility management framework.

**4. Mobility Management** – A Section 5310 grant applicant (for non-traditional projects) may be evaluated or scored based on the extent to which the organization or agency conducts activities or services that improve coordination among public transportation and other transportation service providers. Examples of mobility management activities include:

- Developing and operating transportation brokerages (e.g., one-click/one-call travel information portal/trip planning system) to coordinate transportation information/trip scheduling across all modes.
- Providing travel training and trip planning activities.
- Planning, implementing, and utilizing state-of-the-art technology to coordinate transportation services to address service gaps, tackle unmet needs, lessen service duplication, and improve service-delivery inefficiencies.
- Using on-demand information, real-time data, scheduling, and routing to provide a more customer-oriented and responsive transportation system.
- Leveraging new technology to address transportation coordination challenges by maximizing vehicle utilization, dynamically scheduling and transporting to/from health care visits and improving transportation reliability.

### ***Americans with Disabilities Act***

The Americans with Disabilities Act of 1990 (ADA), Public Law 101-336, requires public transit agencies that provide fixed-route service to provide “complementary paratransit” service to people with disabilities who cannot use fixed-route bus service because of a disability. ADA complementary paratransit service must be provided to origins and destinations within core transit corridors up to a width of three-fourths of a mile (on the sides and ends) of each fixed route. In addition, ADA requires that fares for complementary paratransit not exceed twice the fare that would be charged to individuals paying full fare (U.S. Code, 1990).

In the mid-1990s the State of Delaware decided to provide door-to-door paratransit service throughout the entire state, regardless of rider or destination location in relationship to the fixed-route system. The policy decision to provide universal paratransit services through the entire state, a growth in Delaware’s older adult population—particularly in rural and coastal areas not serviced by fixed-route transit, and a lack of transportation alternatives for non-drivers, has led to increased ridership and costs of paratransit services. In fiscal year (FY) 2019, 945,600 paratransit trips were made by DTC, with 298 paratransit buses at a per-person cost to the state of approximately \$50. This is compared to nearly 7.2 million fixed-route DART bus rides with 260 buses at approximately \$7.60 per person (Office of State Planning Coordination, 2019). To ease the burden on transit operators who elect to provide paratransit services that operate above the ADA mandate, FTA’s Office of Civil Rights issued a guideline in 2002 and



subsequent guidance in 2015 that allows “premium charges” for superior levels of paratransit service (FTA, 2015).

### **Mobility Management Focus**

In recent years, coordination efforts have focused on mobility management, an evolving concept that aims to improve specialized transportation services—particularly for veterans, older adults, people with disabilities, and individuals with lower incomes. With a customer-centric approach, mobility management efforts focus on meeting the needs of customers through a wide range of options and service providers. It also focuses on coordinating specialized transportation services and providers to achieve a more efficient transportation service delivery system.

According to the FTA, mobility management differs from traditional transit services in the following ways (FTA, 2018):

- “Mobility management attempts to better serve individuals and the community. Traditional transit service planning aggregates demand on centralized, highly traveled routes of a transit system.
- Mobility management focuses on diversity of travel options, services, and modes to reach a wide range of customers versus traditional transit systems which are built on regional service coverage.
- Mobility management uses multiple transportation providers to offer highly efficient service to individuals. Traditional transit agencies typically use a single operator to deliver all services.
- Mobility management underscores the importance of service advocacy to improve public transportation management and delivery. A mobility manager serves as a travel agent/service coordinator and identifies the most effective means for meeting individual transportation needs. Transit agencies generally focus on the direct provision of services.”

Mobility management approaches use Intelligent Transportation Systems (ITS) technologies to make individualized service possible. ITS includes a broad range of communications, monitoring, scheduling, and dispatching technologies. Transportation technologies and innovations are rapidly changing and impacting mobility management practices. Moreover, public agencies and private enterprises realize the advantages:

- Achieve economies of scale and reduce transportation costs.
- Compete for funding opportunities that result in seamless connections among modes of transportation.

- Provide multimodal transportation options to more efficiently move people and address the needs of transportation-disadvantaged populations.

Federal transit law (49 US Code §5302) regards mobility management as a capital project. Mobility management is an eligible capital expense under most U.S. Department of Transportation (USDOT) Federal Transit Administration (FTA) programs—including programs reauthorized under federal surface transportation law, such as the Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310).

### **National Center for Mobility Management (NCMM)**

The mission of the National Center for Mobility Management is to “promote customer-centered mobility strategies that advance good health, economic vitality, self-sufficiency, and community” (NCMM, n.d.). It emphasizes that entire transportation network—public transit, human-services agencies, private operators, volunteer drivers, and others—need to work together with customers, planners, and stakeholders to deliver the transportation options that best meet the community’s needs. Mobility management:

- Encourages innovation and flexibility to reach the “right fit” solution for customers.
- Plans for sustainability.
- Strives for easy access to information and referral to assist customers in learning about and using services.
- Continually incorporates customer feedback as services are evaluated and adjusted.

Flexibility, transportation partnerships, and the use of innovative technology are cornerstones of the mobility management approach. Common components include:

- Partnerships among multiple agencies and organizations.
- Customer-driven, market-based approaches that provide customers with a variety of transportation options through individualized trip planning.
- One-stop travel information and trip planning centers that provide information on available transportation options and coordinate requests for transportation services.

### **Coordinating Council on Access and Mobility (CCAM)**

The Coordinating Council on Access and Mobility (CCAM) is an interagency partnership to coordinate the efforts of the federal agencies that fund transportation services for targeted populations. Section 3006(c) of the FAST Act directed the Coordinating Council on Access and Mobility (CCAM) to publish a strategic plan outlining how the Council will strengthen interagency collaboration, address outstanding recommendations, and eliminate regulatory

and statutory barriers to coordinate transportation service. In response to this requirement, the Council engaged in a strategic planning process and developed CCAM’s *2019 Strategic Plan: Mobility for All*. The strategic plan recognizes that a lack access to reliable transportation limits the mobility of transportation-disadvantaged individuals and prevents access to jobs, medical care, healthy food, educational facilities and programs, social services, and other community activities. The strategic plan includes goals to improve access to jobs, health care, education, and community services by eliminating government duplication of services, reducing regulatory burden, increasing access to cost-effective transportation services, and ensuring that transportation services are centered on the citizens who depend on them as a lifeline to community participation (CCAM, 2019).

With the adoption of its 2019 Strategic Plan, CCAM has focused on addressing the challenges associated with coordinating federal non-emergency medical transportation programs. CCAM support’s the U.S. DOT’s “Access and Mobility for All” initiative. As announced by Secretary of Transportation Elaine L. Chao at an October 2019 summit, a goal of the initiative is to “identify [and fund] priority federal and non-federal activities and innovations that can provide more efficient, affordable, and accessible vehicles and mobility services such as transit and ridesharing” (U.S. DOT, 2019).

## **DelDOT Long Range Transportation Plan**

The federally required Long Range Transportation Plan (LRTP) identifies broad goals, policies, and priorities to meet transportation needs over a twenty-year period. The goals are multimodal and address current and future community land use, economic development, environment (natural, human, and cultural), traffic demand, public safety, health, and social needs. The current update of DelDOT’s LRTP, *Innovation in Motion*, provides a framework for the documentation of innovative policies, programs, and operations and also explores new strategies for addressing Delaware’s transportation challenges.

DelDOT LRTP was formally approved by the Council on Transportation on December 16, 2019. The plan will enable DelDOT “to establish and/or revise policies and prioritize investments ensuring Delaware’s transportation network remains safe, efficient, accessible, and reliable, while integrating the latest advancements in technology and providing our customers with excellent service.” Several long-range goals were identified to implement *Innovation in Motion*. Three of the ten long-range goals that seem to best align with goals of this Coordinated Plan (DelDOT, 2019) include:

- **“Connectivity** – [To] improve accessibility, mobility and increase options for the movement of people and freight; enhance the integration of a multimodal transportation system throughout the state; provide people with a choice of safe,

attractive, and reliable options.

- **Quality of Life** – [To] maintain and enhance vibrant and appealing communities and support planned growth and development through a transportation network that serves the mobility needs of all Delawareans.
- **Customer Service and Communication** – [To] conduct the highest level of customer service possible to proactively provide information and to learn from and address our customers’ needs.”

## IV. Literature Review and Best-Practice Research

### *Innovative Service Delivery Models*

The specialized transportation landscape continues to evolve toward more mobility-focused transportation solutions for transportation-disadvantaged populations. In recent years, concepts such as microtransit and mobility on-demand have helped transit agencies provide a range of mobility options for specific populations. Solutions include advancing and investing in new transportation technologies; developing and integrating unconventional modes into traditional services; and partnering with private-sector transportation providers (e.g., transportation network companies [TNCs], taxis, and other modes) as alternatives to traditional specialized transit delivery models. While challenges continue and no “silver-bullet” solution exist, more transit agencies are beginning to pilot or experiment with new business strategies, suppliers, and technologies.

**Intelligent Transportation Systems (ITS)** – Shows promise to increase efficiency in human-services transportation systems by coordinating paratransit trips among partnering agencies. ITS is a set of tools that facilitates a connected, integrated, and automated transportation system. New trip-planning technologies create data sharing opportunities among transportation providers and enable agencies to better coordinate trips and efficiently serve clients.

**Mobility on Demand (MOD)** – This traveler-center transportation initiative enables consumers to leverage different technologies to access shared mobility services when needed (versus advance scheduling). FTA established the MOD Sandbox program in 2016 to “envision a multimodal, integrated, automated, accessible, and connected transportation system in which personalized mobility is a key feature. MOD allows for the use of on-demand information, real-time data, and predictive analysis to provide travelers with transportation choices that best serve their needs and circumstances” (FTA, 2016). Paratransit riders of Greater Richmond Transit Company (GRTC), Richmond’s public transit provider, can now use a reservation app to book on-demand transportation services. Through this program, elderly residents and individuals with disabilities who are part of GRTC Transit System’s CARE service can schedule advanced rides for an additional, nominal cost.

**Mobility as a Service (MaaS)** – While more robust in Europe, U.S. transit agencies are beginning to develop pilot programs that use technology that enable travelers with access to a menu of mobility options that meet their needs. MaaS platforms take “one-click/one-call” transportation booking to the next level. Users can plan, book, and pay for door-to-door transportation using a single app.

**Shared-Use Mobility Systems** – FTA describes this concept as “transportation services that are shared among customers, including transit agencies; taxis and limos; bike sharing; car sharing (round-trip, one-way, and personal-vehicle sharing); ridesharing (car-pooling, van-pooling); ride-sourcing; scooter sharing; shuttle services; neighborhood jitneys; and commercial delivery vehicles providing flexible goods movement.” Shared-use mobility systems leverage advancements in mobile technology and digital platforms to connect riders—including transportation-disadvantaged customers—with mobility services across multiple transportation modes.

**First- and Last-Mile Transit Accessibility** – The first- and last-mile transit problem occurs when trip origins and destinations are far removed and/or not conducive for walking, biking, strolling, or using an assistive device. Gaps in sidewalk connectivity, lack of crosswalks or bike lanes, and poor bus stop amenities contribute to first- and last-mile accessibility challenges. These issues also create unsafe conditions in accessing public transportation. Transportation master plans and programs are being developed by transportation and land-use planners such as San Diego’s Safe Routes to Transit Program, Washington, D.C.’s Metrorail Station Investment Strategy, and Jacksonville Transit Authority’s Route Optimization Initiative (Smart Growth America, 2017).

**Expansion of TNCs for Non-Emergency Transportation (NEMT)** – Several states are developing TNC regulations to address issues human-services transportation needs. In California, legislation was passed to better enable access to persons with disabilities—including wheelchair users—who wish to use TNCs. In Arizona, a cost-containment policy change now allows TNCs to register as NEMT medical transportation providers. Rideshare companies like Uber and Lyft may now provide on-demand service to Medicaid members who do not require personal assistance.

**Public–Private Partnerships (P3)** – These allow transit agencies to partner with private companies to improve service and sometimes to expand service areas. Private companies can complement agency services by extending service into lower-density areas by offering first- and last-mile transportation solutions. Potential private partners include TNCs, taxis, and private microtransit.

### ***Innovations in Human-Services Transportation***

The *Evaluating the State of Mobility Management and Specialized Transportation Coordination in Delaware* report described successful coordination models. Specifically, successful “best-practice” models of mobility management and specialized transportation coordination services in other states/regions/jurisdictions were reviewed and analyzed with respect to their applicability in Delaware. This included the potential utilization of emerging and innovative transit technologies.

## National Best Practices Introduced

“Best practice” research refers to a systematic process used to identify, describe, and evaluate potentially replicable strategies to address mobility management issues nationwide. Within the aforementioned 2017 report, IPA initially identified themes and strategies to improve mobility and coordination of specialized transportation services.

For each theme, the research team identified several best-practice examples that could be replicated in the state of Delaware. A Matrix of Mobility Best Practices, which summarizes applied examples of each theme, was included in Appendix P of the 2017 report (O’Hanlon et al, 2017). During a statewide policy forum held in October 2016, IPA presented the best-practice strategies and models researched. Forum participants were asked a variety of questions on current initiatives and programs, potential replicability of best practices and pilot initiatives, and whether the 2007 Delaware Statewide Action Plan to Coordinate Human-Services Transportation should be updated. Of the 30 forum participants, 90 percent believed the Coordinated Plan should be updated. Forum participants also ranked innovative activities that they believed should be prioritized within an updated plan. Ranked activities, in order of highest to lowest preferences among forum attendees, were:

- Feeder services to fixed-route transit.
- One-stop call center.
- Intelligent transportation technologies.
- Transportation information portals.
- Regional rideshare.
- Pooling or sharing of vehicles.
- Bus-stop accessibility improvements.
- Trip sharing.
- Pilot programs.
- Enhanced travel training.

## Refined Best-Practice Categories










Information about the best-practice strategies and models was included in the outreach and engagement plan developed by IPA in December 2017 and further refined and discussed with the DTC-appointed TAC between February and October 2019. During the June 2019 TAC meeting, a “Mobility Best Practices Matrix,” detailing current best mobility practices in occurring in Delaware and nationally, was used to facilitate a group discussion on potential opportunities for mobility solutions in Delaware. Specific examples of how these practices are being implemented in other regions/states were also provided to the group (see Appendix B, Mobility Best Practices Matrix and Icons Key). The group was asked to consider mobility gaps in

Delaware and ways to bridge these disparities through best-practice examples presented.

### **Best-Practice Categories: Considerations for Delaware**

A total of nine best-practice categories were identified, as illustrated by icons in Figure 3. In describing these refined best practices, IPA encouraged the TAC to determine how they could best be replicated or applied in Delaware. Details of these considerations are summarized below. These considerations were also integral in TAC discussions regarding how best to address identified mobility gaps, as discussed in Section VII, Mobility Needs and Gaps.

**Figure 3: Best-Practice Categories and Icons**

<p>One Click, One Call &amp; Improved Applications</p> 	<p>Data &amp; Technology</p> 	<p>Older Adults</p> 
<p>Persons with Disabilities</p> 	<p>Multimodal Transportation</p> 	<p>Policy Change &amp; Planning</p> 
<p>First &amp; Last Mile</p> 	<p>Enhanced Coordination &amp; Travel Training</p> 	<p>Non-Emergency Medical Transportation</p> 

### **Improving Transportation Information Portals (phone, online, applications)**

Improving information portals for transportation can benefit many transportation-disadvantaged populations. Veterans trip-planning systems establish one-call/one-click information centers to streamline access to public transportation options for veterans and their families. Lyft’s partnership with National Medtrans Network in New York seeks to establish a non-emergency transportation service targeting seniors without smartphones. The Greater



New Haven Transit District in New Haven, Connecticut, launched an application (i.e., app) and web portal for riders to request and manage their ADA paratransit trips and track their vehicles. Most of the practices apply to people who live in places where accessible transportation already exists. They assist with planning trips more efficiently and making information more accessible. Commonalities of these best practices are web portals and smartphone apps that make getting information and transportation easier. These practices are most applicable to northern Delaware where the availability of accessible transportation is more abundant, but some practices are applicable statewide.

### **Transportation Technology**

Technological developments will continue to play a significant role in mobility and transportation coordination. Supporting the creation of new ideas through hackathons or places like the “Office of Extraordinary Innovation” can get more people thinking about how we can help those transportation-disadvantaged populations. Sharing of data and improved coordination and accuracy can help everyone who utilizes public transportation. Some commonalities of these best practices are data sharing, improved coordination and accuracy, use of mapping technology, and creation of new innovative ideas. Many of these practices would be applicable to Delaware. Creating a community travel video series that informs people about existing or emerging transportation options would be very beneficial. Further integrating multimodal options and web-based visualization into existing trip-planning services in the state will help to better coordinate existing services and increase ease of use.

### **Expanding Specialized Transportation Mobility Options**

Expanding specialized mobility options for transportation-disadvantaged individuals involves identifying and promoting other means besides paratransit. These best practices help better address the needs of populations that may have little to no access to public transit or require additional assistance when traveling. Ride hailing that is accessible to older adults or persons with disabilities is a commonality among these best practices. There is a large senior population in Delaware, so services like these could be very beneficial. Ride hailing services first need to be expanded beyond New Castle County.

### **Improving Mobility Infrastructure**

Investments in transportation-related infrastructure increase mobility and access to essential services. They help those with first- and last-mile connectivity issues, but some practices address the specific needs of transportation-disadvantaged individuals. The OC Flex program in Los Angeles, California, is a one-year pilot program that provides wheelchair-accessible vans.

Commonalities of these best practices are a goal to improve access to transportation services and increase ridership through first- and last-mile strategic plans and the use of micro-transit. Delaware should work on a first- and last-mile transit connectivity strategic plan. Through a data-driven and crowdsourced approach, DelDOT and its partners can identify priority strategies and improve access and connections to public transit. The goal would be to coordinate infrastructure investments around transit stations and stops to extend the reach of transit, ultimately increasing ridership.

### **Fee-Based Transportation Co-Ops**

Fee-based transportation co-ops are membership-based organizations that provide transportation within a designated service area. Members pay an annual fee and a small per-ride fee is withdrawn from their pre-funded personal accounts. These co-ops provide transportation for older adults, children, people with visual impairments, and people with disabilities. ITN*SouthernDelaware* is a fee-based transportation co-op that is already established in Delaware. Currently, it is limited to certain parts of southern Delaware, but it could be expanded to other parts of the state. Since co-ops are fee-based, there could be a concern about equity. These co-ops are accessible only to those who can afford to pay the fees. ITN*SouthernDelaware* requires a \$40 membership fee, along with a per-ride fee that, on average, is about \$11. Because of these fees, the service could be inaccessible to some low-income populations. To help improve mobility options for Sussex Countians, DTC subsidizes ITN*SouthernDelaware* (\$5.00 per trip).

### **Pilot Expansion of Rideshare Program**

DART First State Transit currently operates a RideShare program dedicated to serving commuters who work or live in Delaware. This best-practice program is meant to aid commuters with finding and using alternative modes of transportation through free ride-matching services accessible online or through the app. People register to join and gain points toward prizes for each clean commute they log. However, outreach and marketing could be used to target ambulatory transportation-disadvantaged individuals and/or residents of 55+ (active adult) communities (e.g., Heritage Shores in Bridgeville, Delaware) who may benefit from this service.

### **Link Land-Use and Transportation Planning**

The relationship between land-use and transportation planning is an important consideration in better serving transportation-disadvantaged populations—and all transportation users—in Delaware. This includes encouraging residential and employment growth near high-capacity

transit services, providing affordable housing and mixed-use development near transit corridors, and investing in transit-friendly communities. It involves connecting people to transportation in a way that considers a variety of mobility needs and issues. Creating affordable, transit-oriented and/or mixed-use development provides mobility options to individuals who may not drive, don't own cars, and/or have low incomes.

*Strategies for State Policies and Spending* (i.e., State Strategies) is the key policy document that guides land-use planning in Delaware. Developed by the Cabinet Committee on Planning Issues to fulfill its directives under the Delaware Code, State Strategies provides a framework for the infrastructure and service investments by state agencies. In Delaware, land-use decision-making is made by local governments while the State of Delaware provides the bulk of investments in infrastructure and services. Therefore, one of the major goals for land-use planning in Delaware is to direct development to designated growth areas (as agreed to by state and local governments as articulated in state strategies and local government comprehensive plans (OSPC, 2020 draft).

In 2016, Delaware passed Senate Bill (SB) 130, the “Complete Communities” bill. This legislation sets up a simple framework for local governments and DelDOT to work together to build bikeable, walkable communities around transit. The bill makes it possible for local governments to designate areas as “Complete Community Enterprise Districts” (Districts) that allow for a greater density of transit development while providing safe access to transit through biking and walking infrastructure—and limiting investment in road infrastructure. The goal of the bill is to increase transit ridership numbers and encourage more people to get out of their cars. Once a local community establishes a District, DelDOT is required to (1) develop transit capital improvement projects in the District with the goal of increasing transit ridership and (2) assign these projects with the highest weight for multimodal projects in DelDOT’s project prioritization process. Although the law is nearly four years old, no Complete Community Enterprise Districts have been established yet. A viable, incentive-based process could help make this a reality for Delaware local governments.

### **Link Shared-Use Mobility to Public Transit**

Linking shared-use mobility, such as private rideshare options, to public transit could play an important role in eliminating first- and last-mile connectivity issues. This best practice involves private rideshare providers partnering with the public transit agency. While such partnerships might be applicable in Delaware, limitations among current ridesharing provisions may restrict services to more densely populated areas of the state.

## Enhanced Coordination

Boston-based health transportation company Circulation has established partnerships with Uber and Lyft to provide non-emergency medical transportation (NEMT) to individuals lacking transportation to doctor’s appointments. Beginning as a start-up in October 2016, Circulation initially partnered with Boston Children’s Hospital, Mercy Health System in Pennsylvania, and Nemours Children’s Health System in Delaware. The goals included reducing the number of missed medical-care visits, decreasing ride booking times, and lessening the time clinicians spend on administrative tasks. Circulation has grown substantially, now serving more than 1,000 healthcare facilities across 44 states (Martin, 2017). Detroit DOT’s partnership with Lyft provides subsidized rides for job-related transportation to or from selected bus stops for people who work late at night.

Some commonalities of these best practices are partnerships between providers, a network of transportation services, and the use of technology to coordinate transportation. Service provider partnerships in Delaware could facilitate better trip management while reducing service inefficiencies. Partnerships with TNCs in Delaware could offer commuters, older adults, and persons with disabilities improved NEMT and late-night commuter options.

## V. Inventory of Transportation Providers

The transportation programs and services available in Delaware are provided through a mix of public, private, and nonprofit providers. Services, information, and programs are all important to well-coordinated transportation options at the local, regional, and state levels. The individual agencies and organizations providing these services fall into one of the following provider categories: public transportation, human-services transportation, brokered transportation, transportation provided by healthcare institutions, membership-based transportation, or private transportation providers. A brief description of each provider is outlined below. A matrix of 2019 Inventory – Delaware Transportation Providers is provided in Appendix C.

### **Public (Statewide) Transportation**

#### **DART First State**

The Delaware Transit Corporation (DTC), an operating division of the Delaware Department of Transportation (DelDOT), is the only statewide public transit provider in Delaware and operates as DART First State. It provides 63 statewide bus routes that include fixed routes, flex routes, intercounty routes, and beach bus services. They also provide complementary ADA paratransit services and contracted rail services in New Castle County through the Southeastern Pennsylvania Transportation Authority (SEPTA). DART First State services reach all three counties in Delaware. In FY 2018, DART ridership comprised 9.26 million total system-wide trips, including 7.2 million fixed-route bus trips, 926,000 paratransit trips, and 1.16 million total rail trips via their contract with SEPTA (information from DTC’s Cathy Smith, Feb. 13, 2019). DART First State public transit is provided through the services, detailed below.

#### **Fixed-Route Bus Service**

Fixed-route bus service is provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations. Each fixed route follows specific scheduling and offers consistent trip origins and destinations. DART First State fixed-route buses are 100 percent ADA accessible, and the fleet has wheelchair lifts and ramps. The fixed-route bus service has over 63 bus routes including 37 in New Castle County, 11 in Kent County, 5 in Sussex County, 4 intercounty, 3 Flex, and 3 seasonal beach bus services.

#### **DART First State Flex Service**

Deviated fixed route is an alternative transportation mode serving low-density suburban areas, with a fixed schedule that has the flexibility of picking up and dropping off passengers in a defined service area. This service includes ADA paratransit, curb-to-curb, door-to-door, door-through-door, or shared rides depending on the needs of individual riders and service area provisions.

Flex service was launched in November 2014 in Sussex County. It operates as a hybrid between DART’s fixed-route buses, which travel to bus stops on a regular schedule, and paratransit buses that provide door-to-door transportation to qualified riders through an advanced reservation system. Flex-route buses offer trips to/from regularly scheduled stops, but can time deviate from the normal route. These buses deviate up to one mile off of its set route to pick up riders. Riders can call to make a reservation as early as two days or as late as two hours in advance of their desired pick-up times. Flag zones along designated roads allow riders the opportunity to flag down these buses. There are three Flex routes in Sussex County: the 901 Route around Georgetown, the 902 Route between Georgetown and Millsboro, and the 903 Route around Seaford.

### DART First State Paratransit

In the mid-1990s, the State of Delaware made a policy decision to treat complementary paratransit as both a transportation and social service. Consequently, DART provides door-to-door paratransit services that significantly exceed Americans with Disabilities Act (ADA) mandates. As shown in Figure 4, DART transports eligible patrons from origins to destinations outside the ADA service area of three-fourths of a mile from fixed-route transit corridors. In addition, DART paratransit vehicles also transport renal care

Figure 4: DART First State Paratransit Customer



patients for dialysis treatments and transport persons aged 60 years or older who do not have disabilities (on a space-available basis in Kent and Sussex Counties). As is the case with ADA-eligible customers, these services are provided from origins to destinations beyond the ADA three-fourths of a mile service area.

Growing demand for paratransit services in Delaware has led to escalating service costs. In the 2018 Fiscal Year, DART First State completed 926,884 paratransit trips with 294 paratransit vehicles. Increases in demand for ADA paratransit services are attributed to a combination of factors, including DTC’s paratransit eligibility standards that exceed ADA mandates; growth in Delaware’s older population; influx of retirees to resort areas and/or low-cost, rural areas that are not served by fixed-route transit; “leapfrogging” of development patterns in undeveloped, rural areas; and the draw of transportation-disadvantaged populations to live in low-cost, rural communities.

### **RideShare Delaware**

RideShare Delaware is a free commuter services program provided by DART First State. RideShare works with employers and commuters in finding solutions and using alternative modes of transportation such as transit, carpooling, vanpooling, walking, biking, teleworking, and compressed work weeks. The goal of RideShare is to reduce congestion, improve air quality, and lower vehicle emissions on Delaware’s roadways.

## **Public (Local) Transportation**

### **Cecil Transit**

Cecil Transit is a Cecil County, Maryland-based service that offers five fixed routes, two of which operate in lower New Castle County, Delaware. The Elkton-Newark Connection Route is a fixed route operating Monday through Friday. It services the town of Elkton, Maryland; Glasgow, Delaware; Newark Industrial Park; Four Seasons Plaza; Newark Park & Ride; Newark Train Station; Newark Transit Hub; and the Rt. 279 corridor. The Commuter Connection Route serves as a connection from the Marc Rail Station in Perryville, Maryland, to the SEPTA Rail Station in Newark, Delaware. Deviations from the route may be made up to three-fourths of a mile upon request for additional charge. These routes are accessible to all people and are in compliance with ADA regulations.

Cecil Transit also offers a taxi voucher program. The program supplements taxi costs for senior citizens, people with disabilities, and low-income individuals. Cecil County also offers free travel training to individuals and groups in need of instruction on public transportation. Training includes education on bus schedules, bus stops, bus routes, fixed routes, and rider safety.

### **UNICITY Bus**

The UNICITY Bus system is a service of the City of Newark and UD Transit of the University of Delaware with funding assistance from the State of Delaware. This bus service operates Monday through Friday, running three routes throughout the City of Newark and is free of



charge. The bus picks up and drops off passengers at any location between route stops with the exception of Main Street and Delaware Avenue. On these roads, passengers can only be picked up and dropped off at UNICITY signs.

Route 1 runs from Carrington Way/White Chapel/Fountainview/Senior Center to Chestnut Hill Plaza. Route 2 runs from Carrington Way/Fountainview to 36 East Main Street in the morning and South Main Street and Amstel Avenue to West Main Street and Radcliffe in the evening. Route 3 runs from the Fairfield Shopping Center to Carrington Way in the morning and from Amstel Avenue and South Main Street to Delaware Avenue and South Main Street in the evening.

### **Seasonal Shuttle Services**

The Cape May–Lewes Ferry terminal in Lewes offers seasonal shuttles that can help foot passengers get around the local area. Shuttles operate seasonally between Memorial Day weekend and September, with daily service beginning June 15 and continuing through September 29. The Town of Bethany Beach also operates a seasonal shuttle to transport local residents and visitors to the beach. The iconic Jolly Trolley has been operating seasonally since 1970 and provides service between Rehoboth Beach and Dewey Beach.

### **Private Providers**

Several home care, senior helper, and continuing care communities in Delaware provide supplemental transportation services primarily to older adults who have special medical needs and/or are unable to drive. Delaware’s Office of Public Carrier Regulations regulates licensed companies (e.g., private taxis and limousine services) that operate primarily in more densely populated areas of New Castle County. As of May 2019, there were 27 taxi companies and 119 limousine companies operating in Delaware (DTC, 2019). Examples of other private transportation providers, which cater to special needs populations, are listed below.

### **Direct Mobile Transit**

Direct Mobile Transit launched in 2016 with the mission of helping older New Castle County residents and people with disabilities get to and from places of interest or need. While similar to a limousine service, its fleet is made up of four specially equipped, wheelchair-accessible vans. All Direct Mobile Transit drivers are certified in first aid and CPR. Drivers also receive training to assist riders with a range of disabilities. The majority of its business comes from LogistiCare, a transportation broker contracted by the Delaware Department of Health and Social Services. Customers are asked to request rides within 24 hours before their trip.



## **Kent-Sussex Industries, Inc.**

Kent-Sussex Industries (KSI) is a private, not-for-profit vocational rehabilitation organization that serves residents of Kent and Sussex Counties. The mission of KSI is to provide person-centered support to assist people with disabilities in finding employment and participating in their communities. Services include transportation, vocational evaluation, Skill Development Center-based pre-vocational services, community-based work crews, supported employment, and competitive placement.

KSI services about 300 individuals per year. Participants are referred to Kent-Sussex Industries, Inc. through agencies such as the Division of Developmental Disabilities Services (DDDS), Division of Vocational Rehabilitation (DVR), Division for the Visually Impaired (DVI), Veterans Administration (VA), and school districts.

## **Senior Citizen Affordable Taxi (SCAT)**

The SCAT program provides a 50 percent discount on taxi fares for older adults and persons with disabilities. Taxis are owned by private companies and do not guarantee wheelchair accessibility. Individuals who use wheelchairs need to inquire with the taxi service with which they are requesting service to learn about accessible vehicle options.

## **Transportation Network Companies (TNCs)**

TNCs (e.g., Uber and Lyft) have provided app-based ride-sourcing services in U.S. cities since 2012 (Texas A&M Transportation Institute, 2017). All TNCs are required to obtain a permit from DelDOT to operate in the state of Delaware.

TNCs are not public carriers and do not provide taxicab and limousine services. TNC drivers transport passengers using personal vehicles, which may not be accessible to persons with disabilities or those who use mobility devices. All personal vehicles are authorized by the TNC. Rides are prearranged with TNC drivers through an app or digital network controlled by the TNC. Fares and fees for services are displayed and collected through the app/digital network. Riders are provided with a digital receipt after ride completion.

TNCs are not affiliated with transportation brokers that arrange non-emergency medical transportation for Medicaid or Medicare members. TNCs are not permitted to raise fees for any persons with disabilities.

## **Lyft**

Lyft is an app-based, on-demand private ridesharing service that enables individuals to request transportation using a smartphone app. Rates for Lyft vary by the time of day of the ride and the type of transportation service selected.

### Uber

Uber is an on-demand ridesharing service. Patrons can request a ride using a smartphone app or by phone. With 24/7 availability, individuals can request a ride any time of day, any day of the year.

### Zipcar

Zipcar is a membership-based, car-sharing program. Cars are kept at locations in Newark and Wilmington in New Castle County, Delaware. The program gives members access to a shared car when they need one—without the cost and hassles of ownership.

## ***Nonprofit Organization (not Section 5310) Transportation***

Nonprofit transportation in Delaware is provided by a vast array of faith-based organizations, veterans organizations, senior centers, community centers, and medical facilities. Human-services transportation includes a wide range of services and providers that are focused on increasing access to transportation for various transportation-disadvantaged individuals.

Several health and human-services programs offer transportation to their specific client populations. For example, the American Cancer Society provides cancer patients with free rides to treatment. Community volunteers provide rides across all three Delaware counties.

## ***Human-Services (Section 5310) Transportation***

DTC is authorized to administer the federal Section 5310 program in Delaware. The purpose of the 5310 program is to provide assistance in meeting the transportation needs of elderly and/or disabled persons where public transportation services are not available, insufficient, or not appropriate. The Section 5310 program allows Delaware to enhance its own transportation services by making available certain funds annually. The objectives of the program are to:

- Promote the coordination of specialized transportation services to persons 60 years of age or older and to disabled persons of any age, regardless of the type of disability (cognitive or physical).
- Help address transportation barriers experienced by older adults or people with disabilities and to provide guidelines for private nonprofit and public organizations to collectively work to help achieve that goal.
- Encourage cooperation and coordination among all Section 5310 organizations and their programs and with other agencies providing transportation services.

- Ensure full compliance with federal and state guidelines and requirements.
- Adhere to the Delaware Department of Transportation’s Long Range Transportation Plan.

Section 5310 funds are made available through DTC to eligible sub-recipient agencies that demonstrate project plans that meet FTA and DTC qualifying standards and favorably serve persons with disabilities and older adults. The three categories of eligible applications for Section 5310 funding include: (1) private nonprofit organizations, (2) governmental authorities located in areas where no nonprofit corporations or associations are readily to provide the service, and (3) governmental authorities approved by the State of Delaware to coordinate services for older adults and persons with disabilities.

As of September 2019, there were a total of 45 providers that receive funding under the Section 5310 program. Together they completed 221,681 total rides during FY 2019. Of the 45 total providers, 31 provide transportation specifically for seniors and 9 provide transportation for those with disabilities. The top provider for FY 2019 was CHEER, completing a total of 47,842 rides. Other top providers include Kent-Sussex Industries, Inc. completing 26,109 rides, Milford Senior Center completing 15,000, and Modern Maturity completing 14,723.

### ***Non-Emergency Medical Transportation (NEMT)***

#### **Medicaid Transportation**

LogistiCare is a Georgia-based transportation broker that is contracted by the Delaware Department of Health and Social Services (DHSS) to coordinate Medicaid transportation to and from non-emergency medical appointments. The broker acts as an administrator and is responsible for all aspects of a ride including screening for eligibility, reservations and scheduling, billing and record keeping, quality assurance, and subcontractor procurement and management.

LogistiCare contracts with a number of transportation providers, ranging from rather large ambulance companies to small (1–2 vehicle) providers, cab services, and public transportation (i.e., DART) for ambulatory individuals. In Delaware, the broker partners with approximately 60 transportation providers.

## On-Demand Transportation Brokers

### Circulation and Nemours/Alfred I. duPont Hospital for Children

Nemours/Alfred I. duPont Hospital for Children in Wilmington partners with Circulation to facilitate rides for patients and families to and from its facilities. The program was piloted in September 2016 and had facilitated over 800 rides by June 2018. Circulation’s platform allows social workers to schedule rides in an average of 5 minutes, compared to the average of 20 minutes it takes to use a taxi voucher. Unlike taxi vouchers, Circulation’s platform allows social workers to schedule rides in the future and repeat rides. Circulation can also be used to arrange for a patient’s parent/guardian to make a trip to the pharmacy to pick up a child’s medication.

### Renal Care Transportation

In 1970, the Delaware General Assembly established the Chronic Renal Disease Program (CRDP). The purpose of this program is to aid state residents diagnosed with End Stage Renal Disease (ESRD). Services provided can include payment for medications, nutritional supplements, transportation, and Medicare Part D. Since the program is primarily supported by the state, operational funds are limited. CRDP should only be utilized as a program of last resort. All third-party resources (Medicare, Medicaid, veterans benefits, and private insurance) must be considered before CRDP funds are utilized.

Transportation services for eligible CRDP patients are arranged by the Division of Medicaid and Medical Assistance (DMMA) through its transportation broker. Transportation may be provided to and from dialysis centers and transplant hospitals, and, in exceptional cases, to and from medical appointments. Transportation arrangements include:

- **Mileage Reimbursement** – Mileage reimbursement may be provided to the client, client’s spouse, caregiver, or anyone who consistently transports clients. There is no restriction on the minimum number of miles to be eligible.
- **Delaware DART First State Transit Tickets** – DART Tickets will be purchased for client use. A monthly supply of tickets is sent to the dialysis social worker for distribution. Tickets are replaced monthly based on the previous month’s usage.
- **Private Transportation Companies** – Private transportation companies may provide transportation if they have a contract with DMMA’s transportation broker.
- **Volunteer** – A volunteer trained by DMMA’s transportation broker may provide transportation utilizing a company vehicle.

## **Telemedicine**

Telemedicine is the use of medical or behavioral health information exchanged from one site to another using an electronic, interactive (two-way), and real-time telecommunications system to address a patient’s health needs. Telemedicine encompasses a variety of technologies and services to deliver virtual medical and educational services. It is a cost-effective alternative to face-to-face appointments where access to care can be compromised depending on the availability of service providers in a geographic region. Special equipment for real-time streaming is provided at each site.

Delaware’s Medicaid program provides reimbursements for live video telemedicine for up to three consulting providers. The GT modifier (which indicates the service occurred via interactive audio and video telecommunications system) can be used for early and periodic screening and diagnostic and treatment services through the School-Based Health Services Program.

The Delaware Telehealth Coalition was established in 2011 and is dedicated to implementing the latest telehealth technologies to provide optimal health care to Delawareans and overcome challenges associated with healthcare delivery. The Coalition is a diverse group of healthcare stakeholders, including state agencies, local healthcare organizations, nonprofit groups, commercial technology organizations, and members of the community. The organization aims to improve access to behavioral health and specialty care services and chronic disease management programs through the use of telehealth technologies.

While telehealth services are limited, they provide alternative health care access and disease management programs without the reliance on transportation services. As the demand for healthcare and transportation services increases, telehealth options may evolve to address emerging non-emergency needs.

## **Membership-Based Transportation**

### **Village-to-Village Network Transportation**

Villages are geographically defined, self-governing, grassroots, volunteer-based organizations developed with the purpose of enabling people to remain living in their own homes and communities as they age. Villages provide volunteer services including transportation, health and wellness programs, home repairs, and social and educational activities. Two membership-based villages, which require membership fees for programs and services, currently exist in Delaware.

### **Village Volunteers (formerly recognized as the Greater Lewes Village Network)**

The Village Volunteers group of Greater Lewes provides support, services, and programs that enhance the lives of members by helping them remain engaged in a variety of social, educational, and cultural activities. As part of its membership, the organizational volunteers offer transportation of members to medical appointments, social or cultural events, hair salons/barbers, grocery stores, and other errands.

### **JFS Village – Northern New Castle County**

The JFS Village is a community of support that provides older adults needed services to enhance quality of life, remain active, and encourage independence. Member benefits include reduced-cost transportation services including personal shopping trips, including errand services. The JFS Village also offers a variety of programs, daily activities and weekday lunches where they provide transportation.

### **ITNSouthernDelaware**

ITNSouthernDelaware is a nonprofit, volunteer-based transportation cooperative based out of Milton, Delaware. Its mission is to provide sustainable community-supported transportation services for Sussex Countians 55 and older and adults with visual impairments. The cost of an annual membership is \$40, with a flat rate of \$1.25 per mile. The 24-hour service operates mainly in Lewes and Rehoboth Beach, with expanded services in Ocean View, Milton, Milford, and Long Neck. Since opening in 2016, ITNSouthernDelaware has provided over 3,000 rides. To help improve mobility options for Sussex Countians, DTC subsidizes ITNSouthernDelaware (\$5.00 per trip).

### **Veterans Transportation**

The Delaware Commission of Veterans Affairs (DCVA) offers healthcare services to eligible military veterans at the Veterans Administration (VA) medical center in Wilmington and community-based outpatient clinics (CBOCs) in Dover and Georgetown. VA bus transportation is provided daily from local CBOCs to the Wilmington VA. A shuttle also runs to and from the VA Medical Center in Wilmington and a mobile clinic in Sussex County. The shuttle runs once a day, Monday through Thursday, making ten stops in Sussex county and one stop in Kent County. The shuttle is wheelchair accessible.

Veterans may be eligible for a reduced fare on DART First State’s regular fixed-route bus service. Reduced fares are available for people who are ages 65 and over or who have a certified disability. DART bus stops are in close walking distance to the Wilmington VA Medical

Center on Kirkwood Highway and CBOCs in Kent and Sussex Counties. DART statewide Paratransit Services offer comparable transportation for individuals with disabilities who are unable to use the regular, fixed-route bus service. An application and approval process is required.

Supported by the DCVA the Veterans Outreach program provides door-to-door transportation to medical facilities in the region. The Delaware Veteran’s Home (a long-term care facility) and the Home of the Brave (transitional home for homeless female vets) provides transportation services to their residents. The American Legion (Post 28, Oak Orchard) has one trip a day to the VA that departs at 5:45 a.m. Monday through Thursday. The Disabled American Veterans (DAV) provides free transportation to VA medical facilities for injured or ill veterans. Vans are driven by volunteers.

### *Innovative Transportation Solutions*

CHEER operates seven activity centers throughout Sussex County to provide health promotion and nutritional services for older adults. Centers are located in Georgetown, Greenwood, Lewes, Long Neck, Ocean View, Milton, and Roxana. For those who do not or cannot drive, transportation services are available to and from the centers, as well as for other trips, including local stores, banks, and medical facilities. The organization’s fleet is handicapped-accessible. Buses also routinely go to special events throughout the county. In addition, CHEER utilizes a network of volunteers who provide one-on-one transportation to members for medical appointments.

CHEER and La Red Health Center (a federally qualified healthcare center) are partnering to offer better healthcare access in Sussex County for specific populations. La Red Health Centers offer transportation to any of their locations free of charge. La Red offers healthcare services out of both the CHEER Ocean View Activity Center and the CHEER Pelican Cove Activity Center, where transportation is provided by CHEER. CHEER also provides transportation to other La Red Health Centers when the Ocean View and Pelican Cove locations are closed.

## VI. Assessment of Transportation Needs in Delaware

### *Who Are the Transportation-Disadvantaged?*

Transportation-disadvantaged individuals include, but are not limited to, older adults, persons with disabilities, veterans, non-drivers, households lacking cars, and low-income persons. This section focuses on demographic trends and related transportation and mobility challenges facing Delaware’s transportation-disadvantaged individuals—specifically older adults, low-income individuals, people with disabilities, veterans, and minorities.

The Delaware Population Consortium’s latest projections report that, as of 2018, there are 974,051 residents living in the state of Delaware with the state’s population steadily increasing over the next 30 years. New Castle, Kent, and Sussex Counties differ in their economies and demographics. While most Delawareans rely on private cars for travel, people who do not own cars, are unable to drive, or live in remote, rural areas may experience transportation access and equity issues. As Delaware attracts more retirees, while simultaneously facing an existing aging population, the need for transportation justice and mobility options that are efficient and accessible are becoming increasingly important. Focusing on transportation-disadvantaged individuals’ mobility will help state agencies and community-based organizations assess specific needs while identifying alternatives and consumer-driven mobility for all Delawareans.

### *Key Findings*

This section provides information on transportation-disadvantaged populations, or demographic groups have been identified as vulnerable populations in terms of accessing reliable and efficient public transportation in Delaware (O’Hanlon et al., 2017). While this section discusses specific trends and issues of each demographic group, some of the issues and trends overlap among transportation-disadvantaged population categories.

- **The older population is increasing.** In 2018, 15 percent of the national population is 65 and over (65+), and by 2030, 20 percent of the population will be seniors. In Delaware, roughly 18 percent of the population is 65+. New Castle County has the largest population of seniors with 50 percent of the state’s total senior population.
- **People living in poverty are spread out throughout Delaware.** Poverty levels have been nearly the same since 2010; PolicyMap<sup>2</sup> illustrates poverty among all three counties and the City of Wilmington.
- **The 65+ demographic and people with disabilities are intertwined.** As people age, they are more likely to have a disability or develop one. Twelve percent of Delaware’s total population have a disability, yet 32 percent of the 65+ demographic have a disability.

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<sup>2</sup> PolicyMap is a data and mapping tool for accessing data about communities across the United States.



- **The average number of vehicles per household is approximately two vehicles.** According to the transportation needs assessment survey conducted by IPA in 2018, 77 percent of those who participated in the survey choose to drive.
- **Delaware’s veteran population of 75,000 comprises about 9 percent of the state’s population.** While this is not a large percentage of the state’s total population, Delaware veterans may face unique and diverse transportation needs.
- **Delaware is an attractive state for prospective retirees.** As individuals retire to Delaware and continue to age, many are likely to need an alternative to driving. Older adults face increasing mobility challenges as they experience age-related disabilities or opt to live in low-cost, rural areas that are not served by public transportation.
- **Delaware mirrors the national trend of becoming more racially and ethnically diverse.**

### Older Adults

Over the last decade, several reports have underscored the need for safe, affordable, and accessible transportation options for America’s growing older adult population. New research from the AAA Foundation for Traffic Safety indicates that seniors are now outliving their ability to drive safely by an average of seven to ten years (Betz et al., 2018). Although most seniors wish to age in place and continue to drive, older adults may need to seek other affordable transportation alternatives as they lose their ability to drive due to medical conditions, side effects of medication, and/or normal physiologic changes from aging (Foley et al., 2002).

Non-driving older adults often lack viable transportation options. They may live in auto-reliant communities that lack accessible pedestrian infrastructure and “Complete Streets,” that meet the needs of users of all ages and abilities. If public transit is nearby, they may face pedestrian access barriers such as a missing curb ramp, poorly maintained or too-narrow sidewalks, a lack of detectable warnings for vision-impaired individuals, or inaccessible pedestrian push buttons at traffic signals. An American Association of Retired Persons (AARP) report states, “to live independently and age successfully, older Americans must be able to maintain a mobile lifestyle” (2005). A lack of safe, affordable, and accessible transportation choices for older adults many result in missed medical appointments, increasing dependence on family and friends for daily needs outside the home, reliance on paratransit services instead of public transit, or a premature move to assisted-living communities or skilled-care facilities.

### Current Demographics

According to the U.S. Census Bureau’s 2017 National Population Projections, 2030 marks an important demographic turning point for the U.S. population. By 2030, all baby boomers (those born between 1946 and 1964) will be older than age 65. One in every five Americans will be of

retirement age. By 2035, for the first time in history, it is projected that 78 million people will be 65 years or older and will outnumber children under the age of 18 (U.S. Census Bureau, 2018). Defined as people 65 and older (65+), nationally the older adult population demographic group reports numerous reasons as to why they do not drive their own vehicles. These reasons include health barriers, safety concerns, and limited or no access to a car (AARP, 2018).

## Trends

### National Trends

As of 2017, individuals aged 65+ in the United States accounted for 15 percent—approximately 48 million people—of the nation’s total population (U.S. Census Bureau, 2017). Similar to the trends of the older population in Delaware, this demographic group will continue to increase nationally. From 2016 to 2030, the 65+ population is expected to increase from a little under 50 million (15%) to over 73 million (20%). This cohort is projected to further increase to more than 85 million by 2050 (U.S. Census Bureau, Population Division, 2018).

### Delaware Trends

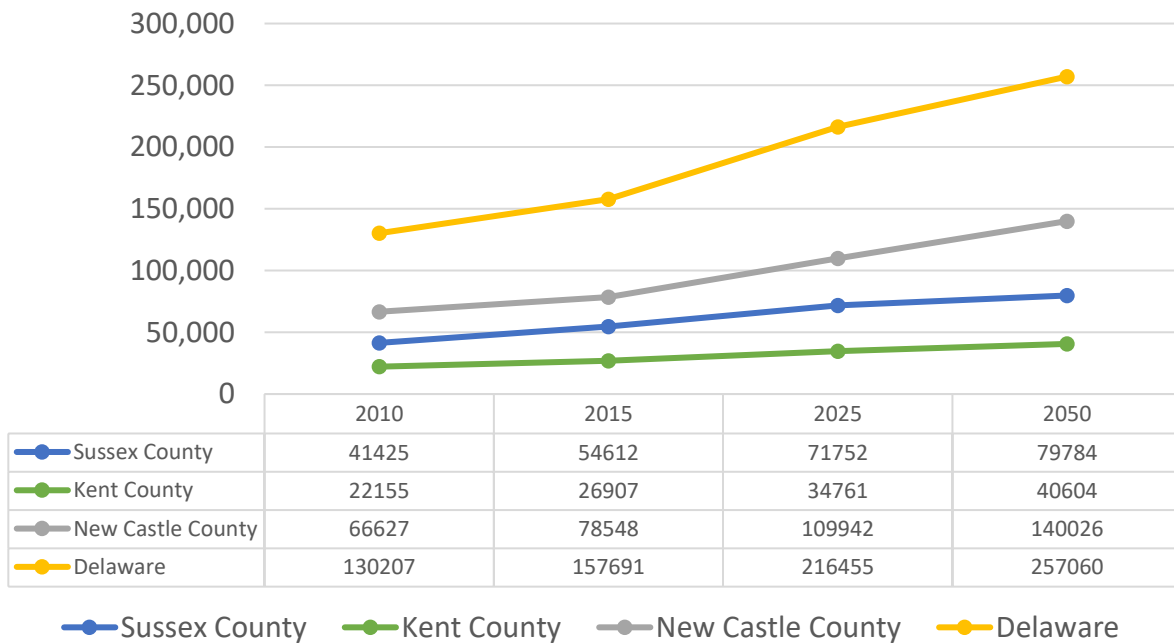
The older adult population is the largest transportation-disadvantaged population in Delaware. In 2018, Delaware’s percentage of older adults exceeds the national percentage of 18 percent of the total population. In 2018, about 175,000 older adults lived in Delaware and accounted for 18 percent of the total population in Delaware compared to 14 percent in 2010. Those living in New Castle County account for 50 percent of the state’s 65+ population, followed by 34 percent in Sussex County, and 27 percent in Kent County (Delaware Population Consortium, 2018). Figure 1 shows the dispersion of the 65+ population since 2010 in addition to the estimated 65+ population through 2050. In 2018, the 75+ population in Delaware was approximately 73,249. There are 12,264 individuals aged 75+ in Kent County, 35,426 in New Castle County, and 25,559 in Sussex County (Delaware Population Consortium, 2018).

Delaware is likely to continue to outpace the nation in the growth of its senior population. U.S. News & World Report ranks Delaware tenth among the most rapidly aging states in America, with the number of seniors increasing by 44.2 percent over the past decade (Brandon, 2018). The number of older adults is projected to increase to 216,455 by 2025 and 257,060 by 2050 (U.S. Census Bureau, Population Division, 2018). One reason is that Delaware has become a prime destination for prospective retirees. According to the MoneyRates Research Center, Delaware ranked as the fourth-best state for retirement in 2019 (Barrington, 2019). Delaware has no sales tax and has been consistently ranked by Kiplinger newsletter as among the most tax-friendly states for retirees based on income, property, and other taxes (Kiplinger Newsletter, 2018).

Retirees are drawn to Delaware’s inexpensive housing in rural areas, scenic coastal communities, and low cost of living relative to its neighboring states. Development of “age-restricted” communities in remote areas and the evolution from seasonal to year-round, inexpensive manufactured home communities in coastal areas continues to attract retirees. As retirees age in place and experience age-related mobility issues, communities that lack access to public transit may become “demand drivers” for specialized transportation and paratransit services in Delaware (O’Hanlon et al., 2017).

As seen in Figure 5, the 65+ population is projected to increase at a higher rate in Sussex and New Castle Counties compared to Kent County in the next three years (Delaware Population Consortium, 2018). As this demographic group increases, the need for public transportation is likely to continue to be an issue in Delaware. As seniors age, many will need reliable transportation since a large percentage choose to not drive or cannot drive their own vehicles (AARP, 2018). Individuals 65+ are dispersed throughout the state, yet there are concentrations of the demographic throughout Delaware.

**Figure 5: Estimated Population of Adults 65 and Over**



Source: Delaware Population Consortium

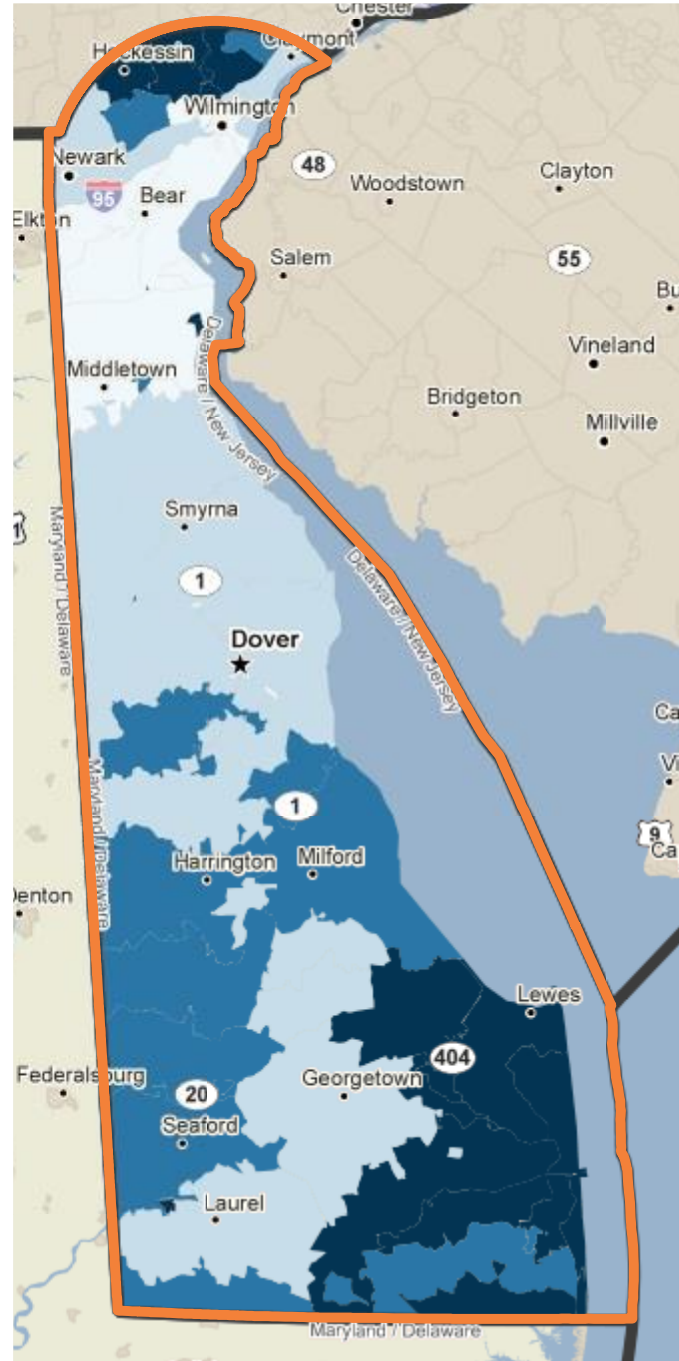
As shown in Figure 6, it is apparent that there is a greater population of seniors on the east coast of Sussex County and north of the City of Wilmington. Accessible transportation and mobility options near these concentrations, as well as car-oriented suburban and rural communities, are especially important moving forward.

## Persons with Disabilities

As defined by the U.S. Census Bureau, disabilities are defined broadly as an umbrella term for impairments, activity limitations, and participation restrictions a person may experience in his or her daily life (Brault, 2010). Transportation barriers for persons with disabilities include their inability to obtain a driver’s license, limited availability of accessible taxis and rideshare service vehicles (e.g., Uber and Lyft), high costs of converting car to an accessible vehicle, and the inconvenience and wait times associated with scheduling paratransit trips (Des Cognets & Rafert, 2019). Without safe, affordable, and reliable transportation options, individuals with disabilities may lack equal opportunities for employment, health care, education, and community services.

The Americans with Disabilities Act (ADA) of 1990 further defines a person with a disability as having “a physical or mental impairment that substantially limits one or more major life activities; a record of such an impairment; or [perceived by others] as having such an impairment” (ADA Amendments Act of 2008). Title II of ADA prohibits discrimination on the basis of disability in public transportation services. It requires supplementary paratransit services be provided for those individuals with disabilities who cannot use fixed-route bus services (49 CFR § 37.121). While ADA has improved transportation accessibility and equity, transportation gaps persist for individuals with disabilities. A recent study by American Association of People with Disabilities (AAPD), a national cross-disability rights organization, suggests that persons with disabilities are currently

Figure 6: Delaware Percent Population 65+



underserved by available transit options. Despite ADA-mandated transportation equity improvements, the disability community completes fewer daily transit trips per capita than those without disabilities, even after accounting for employment, income, age, and vehicle ownership (Des Cognets & Rafert, 2019).

## Current Demographics

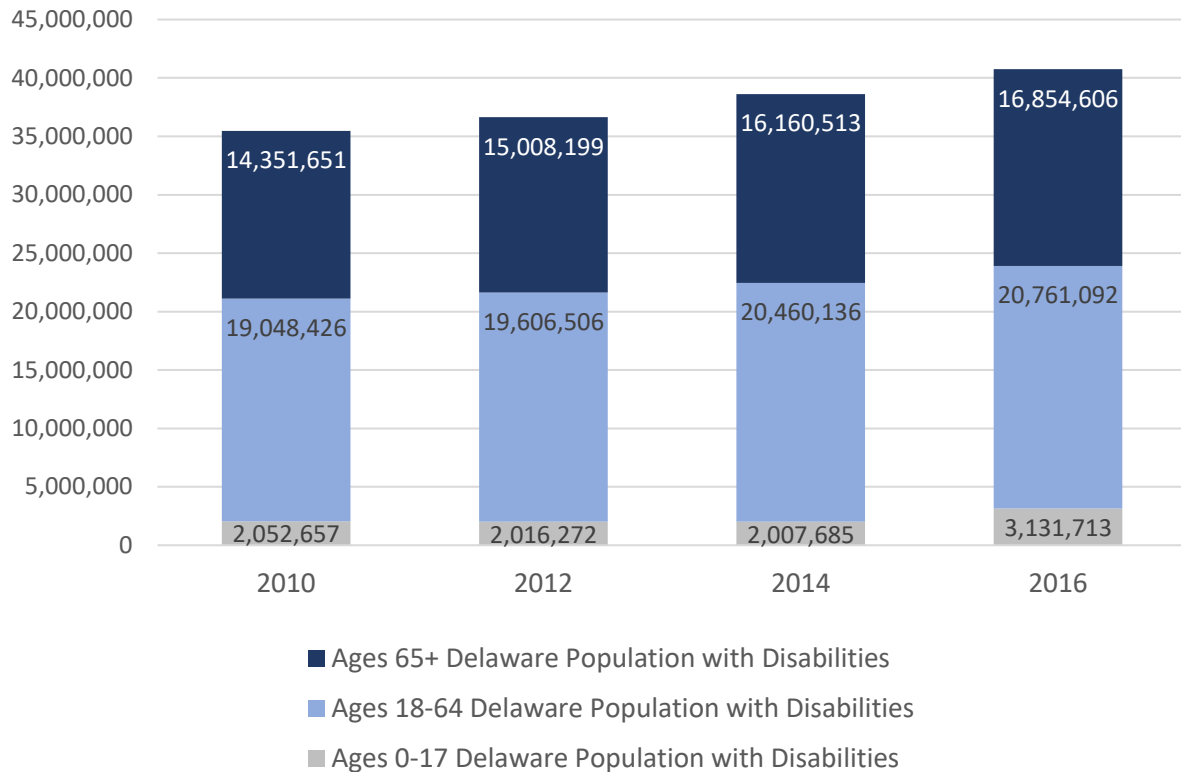
People with disabilities account for 13 percent of the nation’s total population and Delaware’s population with disabilities aligns with the national average at 12 percent of the state’s population. ADA accessible transit, paratransit, and specialized transportation provided by community-based organizations are a necessity for many in this demographic group. A 2013 report published by IPA found that there was a lack of coordination among specialized transportation providers (Institute for Public Administration, 2013). This finding was reaffirmed in 2017 report by IPA that recommended that development of a “framework to improve coordination among transportation service providers and human-services agencies to enhance transportation services for all transportation-disadvantaged populations [in Delaware]...” (O’Hanlon et al., 2017).

As individuals age and reach the 65+ demographic group, they are more likely to acquire a disability and, in turn, affect the disability projections for the 65+ demographics. As of 2017, approximately 12 percent of Delaware’s population between the ages of 18–64 have a disability, which equates to about 55,000 Delawareans. Comparatively, 44 percent of seniors 65 and older have a disability (U.S. Census Bureau, American Fact Finder, 2017).

## Trends

As identified in Figure 7, the number of people with disabilities has not increased a considerable amount over time. While the disabled population continues to increase both nationally and in Delaware, the percent of people with disabilities has remained fairly consistent. Approximately 30 percent of people over the age of 65 have a disability persistently and the total percentage of people with disabilities remains at 12 percent (U.S. Census Bureau, American Fact Finder, 2017). The demographic group of individuals with a disability is spread throughout the state of Delaware. Yet, as the older adult population continues to rise, it is expected that there will be correlating increase in age-related disabilities among seniors.

**Figure 7: Delaware Population with Disabilities**



Source: American Fact Finder

### Low-Income Individuals

Low-income individuals (i.e., those living in poverty) have well-documented transportation needs. People living in poverty often do not have the means to own a vehicle, so they depend on public transportation, rides from friends or family, or non-motorized travel options. Without access to a car, low-income individuals walk or bike to/from destinations or transit stops. Low-income neighborhoods are twice as likely as high-income neighborhoods to lack basic infrastructure (e.g., sidewalks, crosswalks, pedestrian signals) that protect cyclists and pedestrians from collisions with cars (Governing, 2014). Nationwide pedestrian deaths are on the rise, despite a decline in vehicular traffic fatalities. A Governing research report indicates there are disproportionately more pedestrian deaths in low-income neighborhoods than in more affluent areas.

Transportation costs put a significant strain on the budgets of low-income households. The Bureau of Labor Statistics data shows that transportation is the second-biggest expense for most American households (Bureau of Labor Statistics, 2018). Research also suggests that low-income individuals who reside in subsidized housing located in sprawling auto-dependent areas pay considerably more of their annual household budgets for transportation than their

counterparts residing in compact, walkable, and transit-served locations (Shima, Ewing & Renne, 2016). For low-income individuals who live in sprawling suburbia or remote rural areas, alternatives travel by car—including public transit—may be inaccessible, impractical, or costly. Transportation systems should provide everyone—regardless of age, income, or disability—with equitable choices, whether or not they own or can drive a car. In recent years, equity in transportation has been a prime focus of federal transportation policy and an area of research. Reports by the Federal Reserve Bank of Philadelphia indicate that equitable access to transportation is a critical component of economic mobility and quality of life. A lack of reliable and affordable transportation can be a top barrier to employment. For many low-income workers, transportation to jobs is a persistent and underreported challenge. Despite America’s robust economy, many low-income workers struggle to reach jobs in highly segregated and car-dependent suburban areas (DeMaria, 2018).

A 2019 Transportation Justice Plan prepared by Wilmington Area Planning Council (WILMAPCO), a Metropolitan Planning Organization (MPO), identified several transportation equity concerns for residents in the Cecil County, Maryland, and New Castle County, Delaware, planning area.

Moreover, the plan notes that Delaware’s car-centric transportation system keeps poor families in poverty. The region is devoid of multimodal alternatives to travel by car such as walking, biking, and public transportation. Low-income households in the WILMAPCO planning region were more likely to report transportation access issues and live in impoverished communities with heavy traffic volumes and higher than reasonable transportation costs. Moreover, people who live in impoverished neighborhoods lack connectivity to key destinations whether they travel by car, bike, walking, or public transit (Swiatek, 2019).

## **Current Demographics**

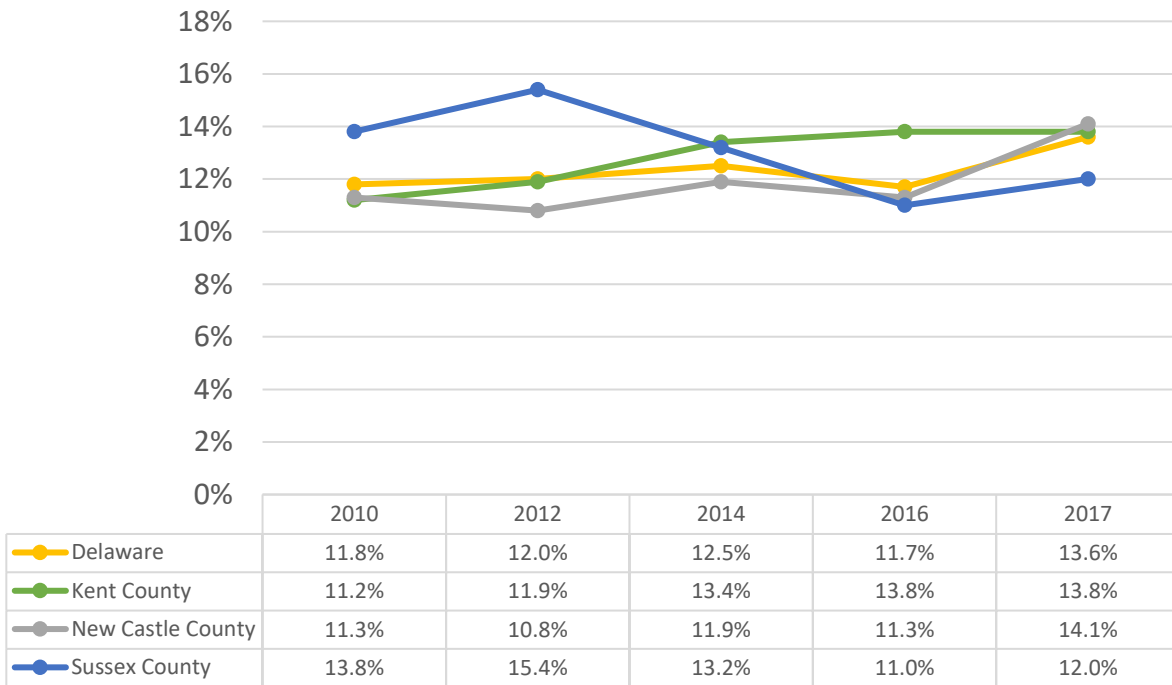
Nationally, persons living in poverty comprised about 13 percent of the U.S. population in 2017, according to the American Community Survey (ACS). Delaware falls slightly above the national average at approximately 14 percent. The county breakdown is as follows for 2017: Kent County with 13.8 percent, New Castle with 14 percent, and Sussex County with 12 percent (U.S. Census Bureau, American Fact Finder, 2017). The percentage of the population in poverty has not changed drastically in the state of Delaware over the past 15 years—the average remains at around 10 to 15 percent of the overall state population. Although households with no vehicles are reported separately than people in poverty in the ACS, these cohorts overlap. While the average Delaware household owned about two vehicles in 2016, 12 to 13 percent of Delaware’s population lives in poverty and may be unable to afford car ownership.



## Trends

The percentage of Delawareans living in poverty within its three counties has varied since 2010. As identified in Figure 9, the percentage of Delawareans living in poverty has increased over the last ten years statewide, in New Castle County, and in Kent County. Sussex County has experienced the only decrease in the percent of residents below the poverty line. Statewide, the overall percent of Delawareans below the poverty line has remained at 12 percent until 2017, when the total slightly increased to 14 percent. According to data released in the U.S. Census Bureau’s annual American Community Survey in September 2018, Delaware was one of only two states to see a rise in its poverty rate between 2016 and 2017. An influx of migrants and resulting increase in racial and economic diversity could be attributed to the rise in Delaware’s poverty rate (Leins, 2018). Figure 8 not only shows the data for the state of Delaware since 2010, but also provides information on poverty trends from 2010 to 2017 in each county.

**Figure 8: Percent of Delawareans Below the Poverty Line**



Source: American Fact Finder



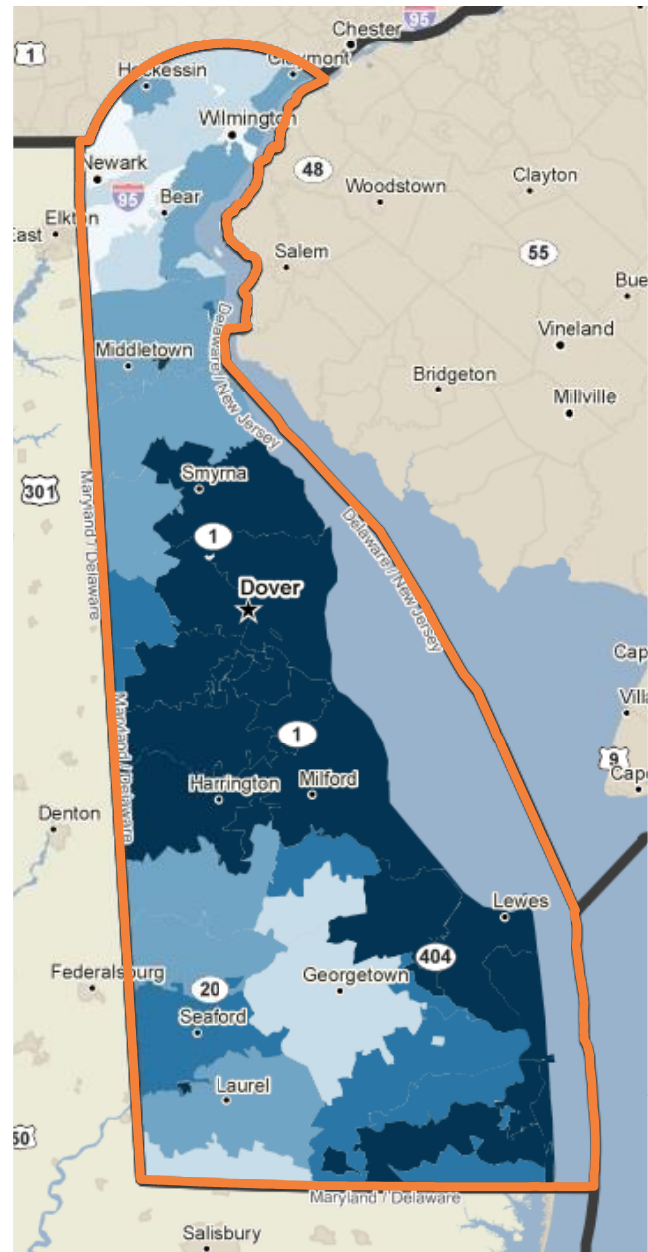
## Veterans

According to a National Conference of State Legislatures (NCSL) report, many older veterans no longer drive, but require ongoing medical care as they age. The report notes that younger veterans who suffer combat-related physical and mental injuries also may require ongoing medical treatment but need reliable transportation (Rall & Wheet, 2013). Many public agencies, nonprofit organizations, peer networks, families, volunteers, veterans service organizations (VSOs), the Disabled American Veterans (DAV) transportation network, and the U.S. Department of Veterans Affairs provide transportation support for veterans. Yet, mobility limitations of veterans may adversely impact their ability to access to health care, jobs following discharge from active duty, educational opportunities, or community services.

In Delaware, veterans with disabilities or chronic medical issues may routinely travel to the Wilmington Veterans Affairs (VA) Medical Center in northern New Castle County, the only hospital dedicated to veterans. While there are two Community-Based Outpatient Clinics (CBOCs) for veterans in Sussex and Kent Counties, historically the VA and its medical facilities have provided limited transportation services. Roundtrip transportation to VA medical centers can be an all-day affair, require coordination among transportation providers, depend on volunteers, or be ill-equipped to transport veterans using mobility devices. Often, VSOs that provide transportation rely on volunteers—senior veterans who may face their own mobility challenges.

Transportation is also key to reintegrating veterans to civilian life. A 2014 study of returning New Jersey military veterans noted that access to public transportation and locational

Figure 9: Percent of Civilians Who Are Veterans



Source: U.S. Census Bureau and PolicyMap

efficiency to medical care, jobs, and housing can promote transportation independence. Yet, a disproportionate number of veterans with disabilities face unemployment, homelessness, and poverty (DiPetrillo & Lubin, 2014).

### Current Demographics

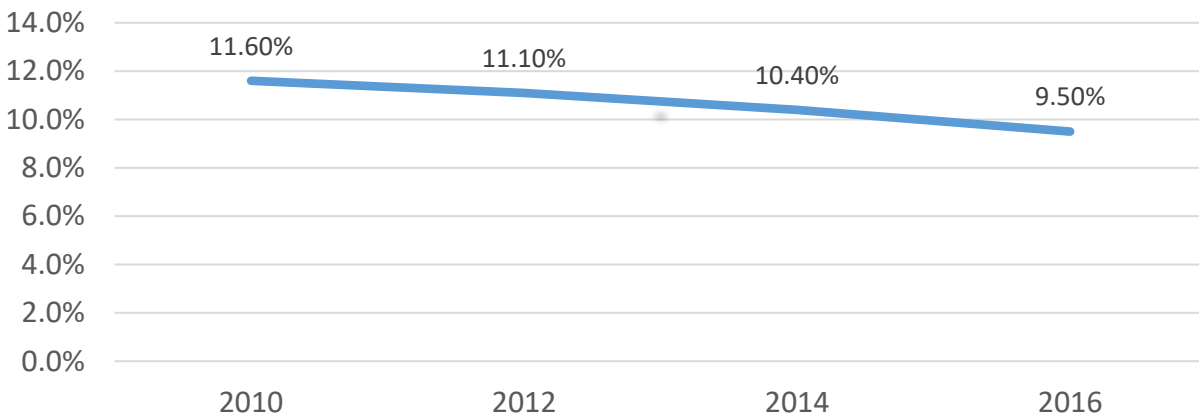
Veterans who served and were honorably discharged from the military account for eight percent of the nation’s population. Delaware’s veteran population of 75,000 comprises about 9 percent of the state’s population. While this is not a large percentage of the state’s total population, Delaware veterans may face unique and diverse transportation needs.

As of 2016, a little over half of Delaware veterans are over the age of 65. Kent County’s veterans make up approximately 14 percent of its population, followed by Sussex with 12 percent of its population and New Castle at about 7 percent. Delaware veterans tend to reside south of Dover along the coast, as can be seen in Figure 9 (U.S. Census Bureau, American Fact Finder, 2017).

### Trends

As shown in Figure 10, Delaware’s veteran population has decreased since 2010. This is primarily due to the fact that there has not been a draft in recent years. Additionally, many veterans have passed away, which has led to a decrease in the percentage of the total population in Delaware. While Delaware’s 75,000 veterans account for only 10 percent of the state’s population and there are many organizations that provide veterans’ transportation services, gaps still exist. Access to reliable and affordable transportation services continues to present challenges for older veterans on fixed incomes, those living in remote or rural areas not served by public transit, disabled veterans, and veterans who need non-emergency medical transportation.

**Figure 10: Percent of Delaware Population Who Are Veterans**



Source: U.S. Census Bureau

## Minorities

Historically, transportation systems have been designed to move cars rather than fostering safe, affordable, and efficient personal mobility. Moreover, minority communities often experience transportation inequities. They may experience barriers to healthy, safe, reliable and affordable transportation options—including safe places to bike and walk. Lack of transportation options may impact the ability to travel to community services or daily destinations such as job centers, grocery stores, libraries, or medical care (Swiatek, 2019). According to the Pew Research Center, low-income black or Hispanic individuals and immigrants are more likely to rely on public transportation (Anderson, 2016). The research shows that nationally there are few racial and ethnic differences in public-transit use among non-urban residents. Yet, among urban residents, “34 percent of blacks and 27 percent of Hispanics report taking public transit daily or weekly, compared with only 14 percent of whites. Foreign-born urban residents are more likely than urban dwellers born in the United States to regularly use public transportation (38% versus 18%)” (Anderson, 2016). In suburban or rural areas, transit may not be available when or where people need it most.

## Trends

With the exception of one state and Washington, D.C., the minority share of each state’s population is increasing nationwide. Delaware mirrors the national trend of becoming more racially and ethnically diverse. According to the U.S. Census Bureau, Delaware will rank as the 14th most-diverse state in the country by 2060. New Castle County’s racial and ethnic mix is expected to rise to the top 6 percent of counties nationwide. In contrast, Sussex County—particularly coastal resort areas that attract retirees—will remain predominately white by 2060 (Montgomery, 2014).

Delaware is among the states that have seen the fastest growth of their Hispanic populations. According to U.S. Census data, the state’s Hispanic and Latino population was more than 89,500 in 2017 and accounted for 9.3 percent of its total population. Delaware’s Hispanic population grew by 63 percent, from 51,000 to 83,000 between 2007 and 2014 (U.S. Census Bureau, 2018). By 2060, more than 193,000 Hispanics will live in Delaware. Sussex County’s rural, western area has experienced a surge in its Hispanic population, which is growing faster than Hispanic population growth in New Castle and Kent Counties. One in five Delawareans who identify as Hispanic or Latino live in poverty, which is more than twice the rate of white, non-Hispanics (Montgomery, 2014).

WILMAPCO’s 2019 Transportation Justice Report identified transportation inequities for people in its planning area (New Castle County, Delaware and Cecil County, Maryland). While people

with low incomes and Hispanics report transportation difficulties, African Americans experienced more inequities. These inequities include more difficulty reaching activities (also true of low-income residents), higher rates of bike and pedestrian crashes, more road traffic, and less community transportation project funding than expected based on population size (Swiatek, 2019).

The Transportation Justice Plan makes several recommendations for how to begin to balance the social inequities it uncovered. The report recommends changing WILMAPCO’s project prioritization process so that projects located in African American neighborhoods receive a higher funding prioritization to help correct for chronic underfunding.

## ***Planning for Emergencies for Vulnerable Populations***

### **Why This Is Important**

Another important consideration related to mobility and transportation-disadvantaged populations in Delaware is emergency planning. Emergency planning for older adults and individuals with disabilities is particularly important for residents’ ability to access to services, evacuation routes, and shelters. While emergency planning for vulnerable populations is considered a statewide issue, communities with significant demographic shifts and those with environmental and social vulnerabilities should be prioritized. These include rural areas in Sussex County where more older adults live and retire to flood-prone areas. With more than 30 percent of the area’s population projected to be over the age of 65 by the year 2030, and an increasing number of retirees moving to these areas, it is imperative to prepare citizens and their families on preparing for and managing emergency situations. A recent report by Climate Central and Zillow (2019) ranks Sussex County as the third-highest nationally among counties for the number of new homes built in the ten-year risk zone (Climate Central, 2019).

Older adults have specific needs during emergency situations, including health contingencies and mobility challenges (Parks, 2019). Even for relatively healthy, mobile people, emergency situations present unforeseen difficulties. During a September 2018 workshop held at the Lewes Public Library, mobility concerns related to emergency planning were underscored during an interactive polling session of the area’s older adults. While a majority of older adult attendees indicated that they still drive, many also reported that “having transportation to shelters or other safe places” is a primary concern. Additionally, most polling participants reported that their primary supports (e.g., family, friends) reside in other states. Transportation and mobility options during emergencies are particularly relevant for individuals living alone and those with health contingencies during emergencies (O’Hanlon, 2019).

A similar workshop was held in September 2019 at the Roxana Fire Hall and included older adult participants from area communities such as Roxana, Dagsboro, South Bethany, and Fenwick Island. Over half of those polled indicated that they do not have family members living within 60 miles of their current residence, and many reported not having an emergency communications plan.

## **Safety and Emergency Preparedness Planning in Delaware**

The State of Delaware is vulnerable to a wide range of natural and man-made emergencies and disasters. Delaware is particularly susceptible to coastal storms, hurricanes, floods, and nor'easters. These vulnerabilities encapsulate emergency management in Delaware as a complex process requiring efficient coordination and communications between government and communities (Lee, 2019). Emergency preparedness plans are key to ensuring all levels of government collaborate and function within the four phases of emergency management: mitigation, preparedness, response, and recovery.

### **Emergency Management at the State Government Level**

#### **Delaware Emergency Management Agency**

DEMA is the lead state agency for the coordination of comprehensive emergency preparedness, training, response, recovery, and mitigation services to save lives, protect Delaware's economic base, and reduce the impact of emergencies (Delaware Emergency Management Agency). Two major plans, the Delaware Emergency Operations Plan (DEOP) and the Delaware State All-Hazard Mitigation Plan (SHMP), provide the foundation for the state's emergency preparedness, operational procedures, and mitigation strategies. DEOP incorporates an "all-hazards–one-response approach." It also provides an integrated, multi-functional, multi-agency, multi-jurisdictional, and all-hazards flexible approach to incident management (Lee, 2019). DEMA is responsible for the Delaware Emergency Notification System, which warns the public and provides critical information during emergencies.

DEMA's strategic plan (2019–2022) identifies DelDOT and DHSS's Division of Public Health as agencies essential to the state's Emergency Management Program (Delaware Emergency Management Agency, 2019). The plan also references Citizen Corps, for its training, education, and volunteer programs. Through its Community Emergency Response Team (CERT), Citizen Corps is establishing local and county councils that might be helpful in advancing coordination efforts aimed at support vulnerable populations throughout Delaware.

#### **Delaware Transit Corporation**

As an operating division of DelDOT, DTC's coordination with local, regional, state, and federal agencies on security and emergency preparedness/response responsibilities is paramount. The

DEOP, SHMP, and other agency plans predetermine, to the extent possible, actions and interactions to be taken by all levels of government, and state agencies such as DelDOT, as part of an “all-hazards–one-response approach.”

DTC is in the process of developing a *Safety Management Policy* to reflect the upcoming changes required by the Federal Transit Administration (FTA) and the requirements of the Public Transportation Agency Safety Plan (PTASP) Final Rule. Presently, the agency is working on having this policy completed by July 2020. PTASP requires certain operators of public transportation systems that receive federal funds to develop safety plans that include the processes and procedures necessary for implementing Safety Management Systems (SMS). Among other requirements, the rule calls on agencies to report its Safety Management Policy and processes for safety risk management, safety assurance, and safety promotion.

*Safety Management System (SMS)* is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency’s safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards. SMS is about applying resources to risk and is based on ensuring that a transit agency has the organizational infrastructure to support decision-making at all levels regarding the assignment of resources. Some key parts of SMS include (C. Smith, personal communication, April 28, 2020):

- Defined roles and responsibilities.
- Strong executive safety leadership.
- Formal safety accountabilities and communication.
- Effective policies and procedures.
- Active employee involvement.

In addition to the implementation of its Safety Management Policy, DTC’s safety and emergency planning efforts may include coordination with other state agency efforts. The Delaware Emergency Management Agency (DEMA), the Delaware Department of Health and Social Services’ (DHSS) Office of Preparedness, and other local agencies coordinate the state’s preparedness efforts. Interagency coordination that address the needs of vulnerable populations could improve current efforts.

### **Division of Public Health’s Office of Preparedness, Delaware Department of Health and Social Services**

The Office of Preparedness, in conjunction with the Emergency Medical Services, established the Emergency Preparedness Planning for Persons with Access, Functional, and Medical Needs Committee. This committee included representatives from state disability council partners,

state agencies who serve the targeted population, staff from DEMA, Delaware Emergency Operations Center, and the University of Delaware’s Center for Disabilities Studies. The Functional Information and Support Center (FISC), established by this committee, was developed to respond to questions and provide technical assistance to emergency managers, responders, and shelter or Points of Dispensing workers who have vulnerable population issues. For additional information about how FISC can support emergency preparedness efforts for individuals with unique circumstances, please refer to Appendix D, Delaware DPH Emergency Preparedness Efforts.

### **Emergency Management at the County Government Level**

#### **Office of Emergency Management for New Castle County**

The Office of Emergency Management prepares New Castle County (NCC) and the public to manage activities before, during, and after the effects of disasters to protect lives and property within the county. NCC relies on a comprehensive emergency management strategy that requires partnership among all levels of government, private sector, industry, voluntary organizations, and the public (New Castle County Department of Public Safety). The office has a pamphlet on its website that provides an overview of various hazards and disasters and what to do in each event.

#### **Office of Emergency Management for Kent County**

The Office of Emergency Management staff is on call 24 hours a day for response to any emergency or disaster in Kent County. The department works with Delaware Homeland Security Terrorism Preparedness Working Group, Delaware Radiological Emergency Plan, DEMA, and the Local Emergency Planning Committee to prevent, minimize, repair, and recover from injury and damage from a man-made or natural disaster (Kent County Levy Court).

#### **Emergency Operations Center for Sussex County**

The Emergency Operations Center responds to natural disasters such as snowstorms, floods hurricanes, nor’easters, and technical disasters. In 2018, the Emergency Operations Center debuted its Mobile Command Unit to coordinate personnel and manage incidents. Additionally, Sussex County has its own Operations Plan that can be used to address hazards. The plan includes 17 Emergency Support Functions and 20 Hazard Specific Annexes (Sussex County).

### **Emergency Management at the Municipal Government Level**

While some Delaware municipalities have emergency management plans in place, the majority of municipalities in the state do not. Larger, full-service municipalities like Newark, Wilmington, and Dover have an office committed to emergency management or have an extensive plan in place for emergencies (City of Wilmington). Smaller municipalities rely on DEMA or the Federal Emergency Management Agency (FEMA) to supply fact sheets and information (Town of Milton).

Additional efforts among Delaware’s state and local government agencies that provide emergency planning services and lead plans could include coordinated opportunities for education and services to better support vulnerable populations, such as transportation-disadvantaged populations. A starting point may be in Sussex County where local emergency planning efforts are limited in higher-risk areas with an increasing older adult population.

Examples of interagency coordinated are cited in the Puget Sound Regional Coordinated Plan (State of Washington). The Puget Sound plan defines special needs transportation and emphasizes the importance of cooperation among transportation providers, such as transit agencies, schools, social service agencies, nonprofits, service providers (e.g., doctors, land-use planners, and developers), and people with special transportation needs. More specifically, the plan describes the necessary coordination during an emergency event. Transportation is coordinated through both local- and county-level management, and meeting the needs of the most vulnerable populations depends highly on the coordination among the region’s transportation providers, service providers, and local emergency managers. The Regional Alliance for Resilient and Equitable Transportation (RARET) is a multi-county emergency management project that focuses on transportation services for seniors, people with disabilities, low-income individuals, and other vulnerable populations in the event of an emergency. RARET coordinates across counties, human service providers, and emergency managers during local emergencies (Puget Sound Regional Council, 2018).

The Puget Sound Regional Coordinated Plan can be used as an example to emphasize the importance of coordinated efforts among government agencies and various levels of emergency management offices, especially for transportation-disadvantaged individuals. The coordination could better address mobility and transportation concerns that are unique to Delaware’s jurisdictions and as a state.



## VII. Community Outreach and Public Involvement

As a follow-up to the June 2017 *Evaluating the State of Mobility Management and Specialized Transportation Coordination in Delaware* report, IPA developed a detailed strategy to meet federal mandates for a participatory planning process. The *Public Outreach and Engagement Plan to Develop a Coordinated Public Transit–Human-Services Transportation Plan for Delaware* (<http://bit.ly/2Xo3tvz>) was published in December 2017 (Figure 11). This section summarizes the goals, objectives, strategies, and outcomes of the public outreach and engagement plan.

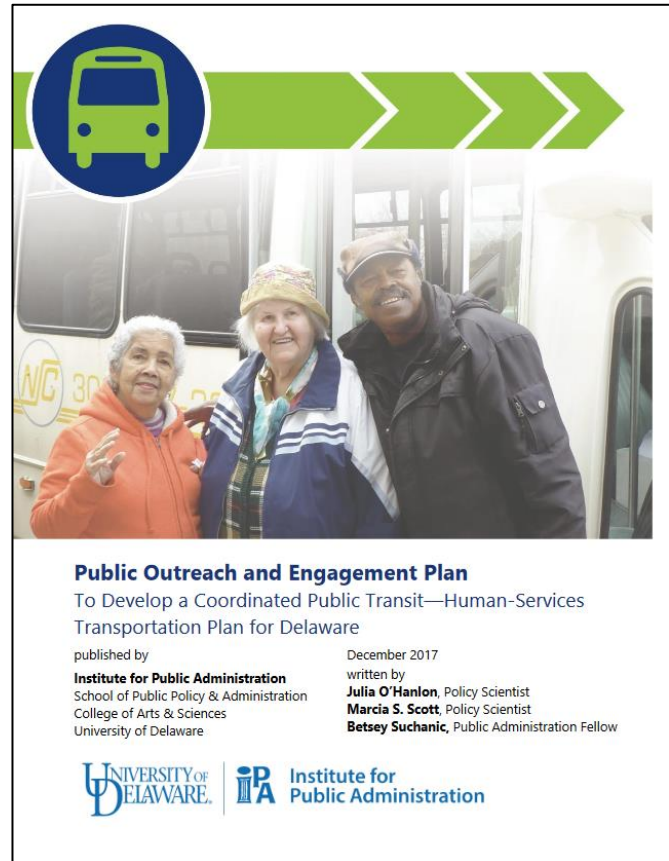
### Goal

The primary goal of the public outreach and engagement plan was to engage a broad and representative cross-section of Delawareans—to inform the development of the state’s Coordinated Plan, which should be consistent with federal guidelines. Obtaining citizen and stakeholder input serves as a critical part of plan and reflects the varied needs and interests of stakeholders, transportation-disadvantaged populations, and the general public.

In addition to meeting federal requirements, enhanced mobility options presented and prioritized through Delaware’s updated Coordinated Plan will be aligned with DeIDOT’s Long Range Transportation Plan, *Innovation in Motion*. Goals outlined in the plan support the agency’s efforts to provide excellent customer service through a safe, accessible, reliable, and innovative transportation network. Goals of the Long Range Transportation Plan focused on accessibility, mobility, connectivity, resiliency, reliability, and quality of life that should also guide DTC’s strategic priorities over the next three to five years.

The plan set forth four primary outreach and engagement objectives, as outlined in the following section.

**Figure 11: 2017 Public Outreach and Engagement Plan**



## Objectives

Outreach and engagement activities were implemented to meet the primary goals of the Coordinated Plan. Approaches and techniques deployed were selected through best-practice research. As described below and illustrated in Figure 12, outreach and engagement activities were designed to inform and educate stakeholders, build connections, consider diversity and inclusion, and evaluate the effectiveness of the overall plan.

Figure 12: Outreach and Engagement Plan Objectives

### OBJECTIVES FOR OVERALL PLAN



## INFORM & EDUCATE STAKEHOLDERS

### Objective 1: Inform and Educate Stakeholders

Objective 1 focused on raising awareness and understanding of the importance of updating the state's Coordinated Plan:

- Address the needs of all transportation-disadvantaged populations.
- Realign Delaware's Section 5310 program funding to meet new federal mandates for allocating funding and conducting coordination activities.
- Better coordinate specialized transportation services.
- Advance a mobility management framework in Delaware.



## REACH OUT & BUILD CONNECTIONS

### Objective 2: Reach Out and Build Connections

Objective 2 focused on connecting with and leveraging existing relationships among statewide agencies and organizations representing a broad range of individuals and stakeholders.

Because there is not a “one-size-fits-all” approach to public engagement, several best practices served as the foundation for a robust, one-year engagement period between October 2017 and October 2018. Three best practices, advanced by Wagner (2013), were utilized to (1) make events accessible to facilitate involvement of diverse stakeholders, (2) use a variety of tools, techniques, and strategies to promote two-way communication and interactions, and (3) develop outcome-oriented processes to facilitate continual involvement, encourage meaningful input, and achieve intended outcomes.

A three-pronged framework for effective public engagement, set forth by Casello (2015), was also deployed. This included customizing outreach messaging, stimulating public interest, and targeting community groups. Both “push” techniques—to spread information through various outreach approaches—and “pull” methods—to obtain stakeholder engagement and input through conventional high-touch (in-person) and high-tech (web-based/electronic) methods—were used as part of the public outreach and engagement strategies.



## ENGAGE DIVERSITY & INCLUSION

### Objective 3: Engage Diversity and Inclusion

The 13-month engagement period was designed as an inclusive process involving transportation-disadvantaged individuals, members of the public, planning partners, and community-based organizations (CBOs) that serve transportation-disadvantaged populations (i.e., older adults, persons with disabilities, veterans, low-income populations, non-drivers, and/or no-car households). An analysis of the stakeholders reached through outreach and engagement activities is provided within this plan. The effectiveness in accessing a diverse audience of people through an inclusive process is also discussed.

Specifically, stakeholders were called upon to identify service gaps and barriers, strategize on solutions most appropriate to meet these needs based on local circumstances, and prioritize these needs for inclusion in the Coordinated Plan.

As shown in Figure 13, targeted outreach and engagement included (but was not limited to) members and staff of senior centers, Section 5310 program subrecipients, citizens/individual contacts, representatives of community-based organizations (besides senior centers), state agencies, state-appointed councils/committees, a DTC-appointed Technical Advisory Committee (TAC), and healthcare organizations.

**Figure 13: Outreach to Targeted Groups**



## EVALUATE EFFECTIVENESS OF PLAN

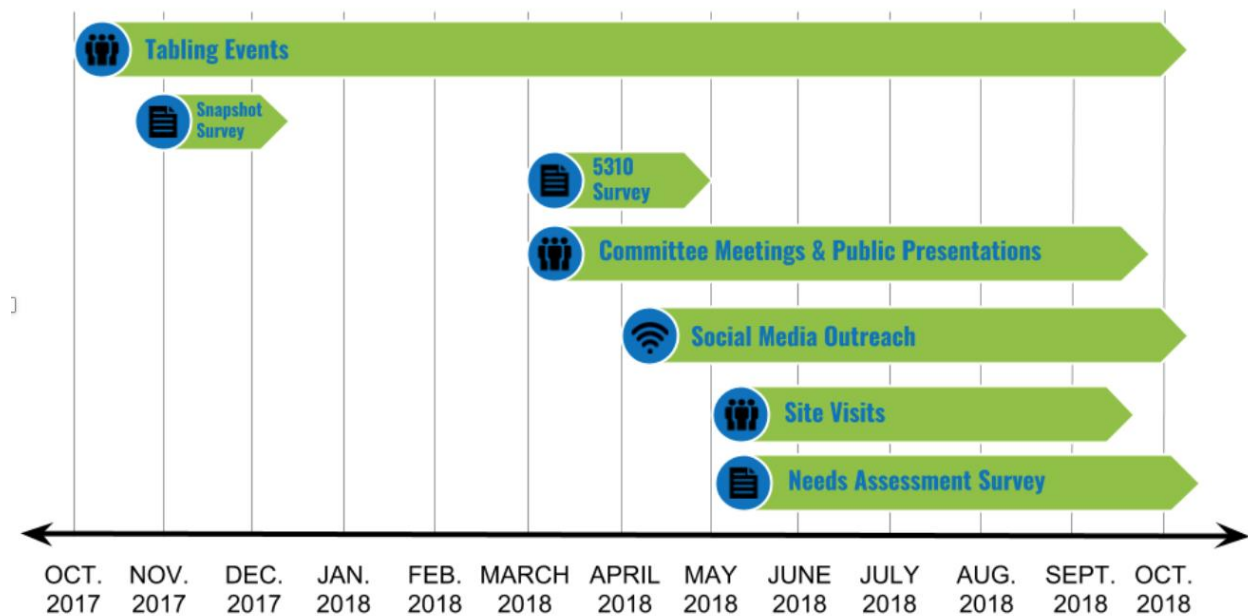
### Objective 4: Evaluate Effectiveness of Plan

Objective 4 focused on determining the most effective outreach and engagement methods through ongoing collaboration and communication with partner organizations and stakeholders.

## Timeline

As shown in Figure 14, a 13-month outreach timeline was established between October 2017 and October 2018. An “outline opportunities” spreadsheet was developed with 86 high-touch (in-person) and/or high-tech (web-based/electronic) strategies to engage diverse stakeholders and disseminate a statewide online, bilingual (English and Spanish) Transportation Needs Assessment Survey. Outreach and engagement activities began with the start of tabling events in October 2017, followed by snapshot surveys conducted at select Delaware senior centers in November and December 2017, including an interactive automated response system (ARS) polling at the Seaford Senior Center. Tabling at public events was conducted throughout the outreach and engagement process. The timeline ended with the wrap-up of social media outreach with the corresponding close of the statewide survey in October 2018. Not included in the chart are electronic crowdsourcing outreach methods to gain input on first- and last-mile barriers to transit connectivity, as these strategies continued through 2019.

**Figure 14: Outreach and Engagement Timeline**



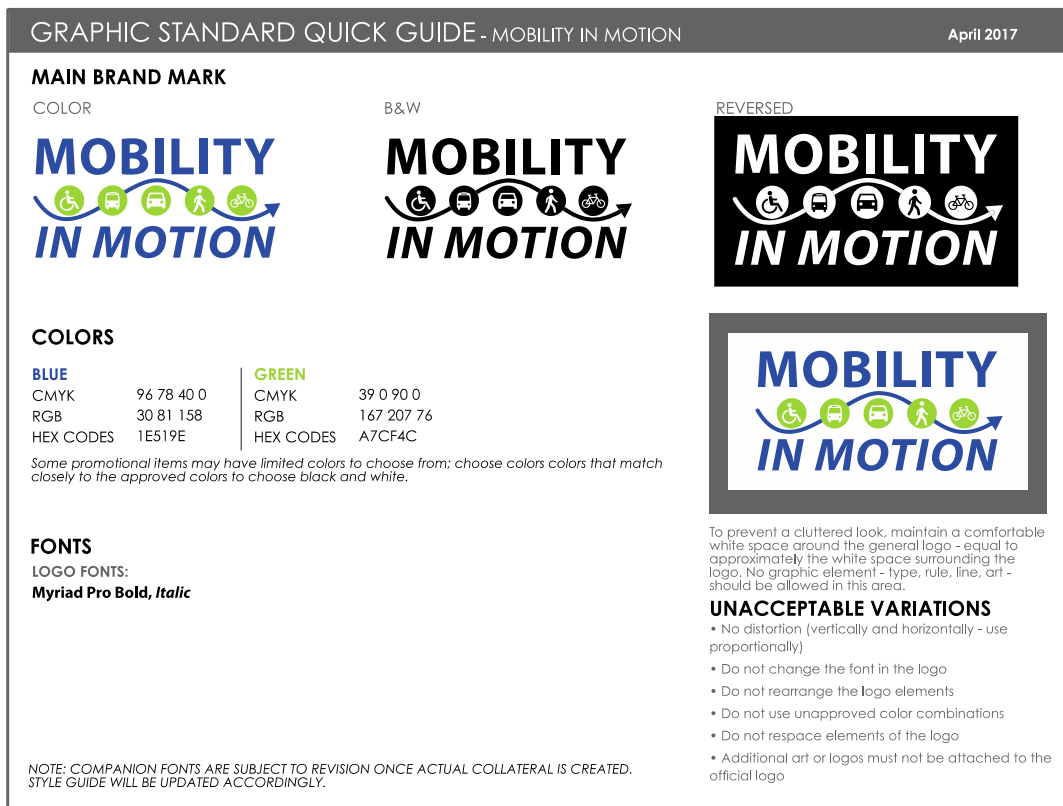
## Outreach and Engagement Strategies

A *Mobility in Motion* webpage ([www.MobilityDE.org](http://www.MobilityDE.org)) was launched on RideShare Delaware’s website in March 2018. It served as a primary method of conducting digital citizen engagement, sharing information, and gaining input from organizational stakeholders, Technical Advisory Committee (TAC) members, and the general public. Coupled with other high-touch and high-tech outreach activities, the webpage provided a platform for disseminating promotional

materials, the Delaware Transportation Needs Assessment Survey (offered in both English and Spanish), and TAC meeting materials.

Developed by IPA and RideShare Delaware (in collaboration with DTC), the *Mobility in Motion* brand and logo were designed to be consistent with the DART First State brand and complement DelDOT’s *Innovation in Motion* campaign for DelDOT’s Long Range Transportation Plan. Branding, along with a brand guide shown in Figure 15, was created to promote content, messaging, and storytelling.

**Figure 15: *Mobility in Motion* Brand Guide**



Once the *Mobility in Motion* brand concept was deployed, a variety of promotional materials were uploaded to a Google Drive folder that was accessible to DTC, RideShare Delaware, and DelDOT. These included web banners, social media posts, “selfie” frame cut-outs for engagement at community events, bilingual postcards, bilingual flyers, bus-shelter posters, and interactive engagement activities, yard signs, and interior bus ads. “Newsy” banners were created on the website homepages for DelDOT, DART First State, RideShare Delaware, and IPA’s *Delaware Complete Communities Planning Toolbox* ([www.completecommunitiesde.org](http://www.completecommunitiesde.org)) that redirected viewers to the *Mobility in Motion* webpage.

A *Mobility in Motion* Outreach Toolkit (<https://goo.gl/EKSe88>) was subsequently developed, disseminated electronically, and posted on the *Mobility in Motion* webpage (see Appendix E). It was designed to encourage project partners, stakeholder groups, and the media to promote the initiative by disseminating information, conducting outreach, and obtaining input on the future of mobility in Delaware through their networks, channels of communication, and events. The Outreach Toolkit provided free downloadable promotional materials including bilingual postcards and flyers; prepared news releases; sample social media posts with graphics and the #MobilityDE hashtag; “selfie” frame cut-outs for engagement at community events; and sample web banners, posters for interactive engagement at events, and email messages with direct links to the English and Spanish versions of the survey.

MailChimp electronic communiques were sent to targeted stakeholder groups. These email messages informed stakeholders about the *Mobility in Motion* initiative and the Transportation Needs Assessment Survey and provided links to informational flyers/postcards that could be further promoted via organization/agency newsletters, websites, social media, and/or emails. Two YouTube videos, “Help Shape the Future of Mobility in Delaware” and “Why Should Delawareans Care About Mobility?” were produced via IPA’s Complete Communities YouTube channel (<http://bit.ly/2QsfxKT>) and distributed via social media and the *Mobility in Motion* website.

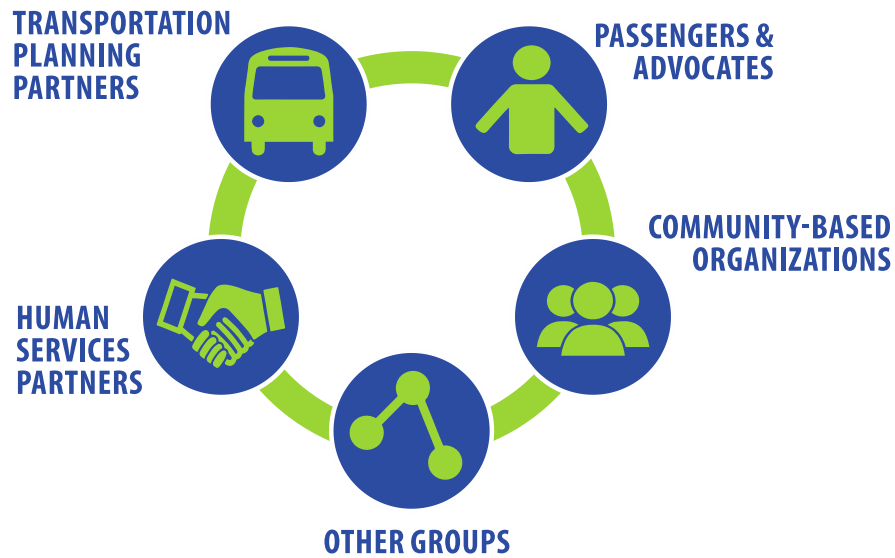
### **Stakeholder Engagement Categories**

While the Transportation Needs Assessment Survey was designed to gather input from all Delawareans, five broad stakeholder categories in Delaware were identified to conduct targeted outreach: (1) transportation planning partners; (2) human-services partners; (3) community-based organizations (CBOs), such as nonprofits and other organizations serving transportation-disadvantaged populations; (4) transit passengers and advocates; and (5) “other” groups such as the business community, local government leaders, and elected officials (see Figure 16). An “Outreach Opportunities” spreadsheet was prepared, which described approaches to engage stakeholders through identified partners and assigned specific responsibilities to either IPA or the DTC/DART First State marketing and public affairs team.



Figure 16: Essential Stakeholders for Delaware’s Coordinated Plan Update

## WHO ARE OUR STAKEHOLDERS?



### TRANSPORTATION PLANNING PARTNERS

Robust engagement was achieved through several transportation planning partners. In spring 2018, IPA collaborated with DTC to administer a survey of Delaware agencies (i.e., 5310 subrecipients) that receive federal funding (Title 49 U.S.C. 5310, herein referred to as the Section 5310 program) to transport senior citizens and individuals with disabilities. The electronic survey instrument was disseminated online via a MailChimp communications platform and had a 77 percent response rate. Survey results range from basic demographic information, such as geographic locations served, to detailed accounts of transportation coordination activity and barriers.

DTC, DeIDOT, and RideShare Delaware also helped with the dissemination of a second survey, a Transportation Needs Assessment Survey, designed for the general population and targeted to transportation stakeholders. This survey allowed adult members of the community to provide feedback on transportation options. Strong efforts were made to gain feedback from as many diverse people as possible. During 2018, the DTC and DeIDOT marketing teams issued news releases on July 25, August 23, and September 12.

In addition, IPA collaborated with DTC’s marketing and public affairs team to make presentations and promote the initiative throughout the state. Opportunities were identified to



share or concurrently table/exhibit at public events (as shown in Figure 17). Tabling events involved distributing information on the *Mobility in Motion* initiative, conducting interactive DOT exercises, engaging with “selfie” frames, and inviting survey input. Finally, DTC’s planning team identified opportunities to conduct *Mobility in Motion* outreach at public hearing workshops, held throughout the state from March to September 2018 (those scheduled to address proposed changes to DART bus routes and schedules).

Two Metropolitan Planning Organizations (MPOs) in Delaware also supported the *Mobility in Motion* outreach and engagement effort. The Dover/Kent County MPO’s public advisory committee hosted a presentation at its August 9, 2018, meeting and the initiative was promoted via the MPO’s e-newsletter and social media. The Wilmington Area Planning Council (WILMAPCO) published news releases on the *Mobility in Motion* initiative in the June, July, and August 2018 issues of its e-newsletters. In addition, IPA project team members attended and conducted outreach at WILMAPCO’s Route 9 Corridor public workshop on June 25, 2018, the 12<sup>th</sup> Street connector visioning workshop on June 25, 2018, and the 7<sup>th</sup> Street Peninsula community workshop on June 26, 2018.

**Figure 17: Stakeholder Engagement “DOT” Exercise at Walkable Bikeable Summit**





## PASSENGERS & ADVOCATES

DART First State transit passengers and passenger advocates were an important focus for engagement and outreach strategies. Bus passengers were provided double-sided bilingual cards that provided links to the online Transportation Needs Assessment Survey. Informational flyers, with a synopsis of the *Mobility in Motion* initiative and links to the survey, were posted at major transit hubs in New Castle, Kent, and Sussex Counties. Thirteen site visits were made between June and September 2018 at transit stops, hubs, and park & ride locations throughout the state in all three counties as follows:

- **New Castle County** – Middletown bus stops, Newark bus stops, Smyrna Route 13 rest stop, downtown Wilmington bus stops, Kirkwood Highway bus stops, the Newark transit hub, the Christiana Mall transit hub, People’s Plaza transit hub, the New Castle County location of the Department of Motor Vehicles (DMV), and select New Castle County park & ride locations.
- **Kent County** – Dover-area bus stops and the Dover transit hub.
- **Sussex County** – Georgetown bus stops, Sussex County location of DMV, Lewes Beebe Hospital bus stop, Lewes Transit Center and park & ride location, and Rehoboth park & ride locations.

DART First State bus passengers were also targeted for a crowdsourcing initiative on first- and last-mile transit accessibility. Crowdsourcing involves the use of web and mobile-based apps to obtain information, insight, and knowledge from the public. As shown in Figure 8, IPA developed three map-based crowdsourcing tools on first- and last-mile bus stop accessibility in Delaware to obtain information from DART First State transit riders. Transit riders were encouraged to use one of three online map-based tools to share a first- and last-mile accessibility experience. Crowdsourcing tools—including a Wikimap, Geoform, and GIS Crowdsourcemap—were made available at [MobilityDE.org](http://MobilityDE.org). Information was disseminated via a DART First State news release, rider alerts, postcard-sized handouts, and social media. IPA produced a video on first- and last-mile transit connectivity and three video tutorials—one for each crowdsourcing tool. YouTube videos were made available at [goo.gl/J7TZN6](https://goo.gl/J7TZN6).



## HUMAN SERVICES PARTNERS

As shown in Figure 18, human-services partners were engaged in fun and interactive ways. News releases and the Outreach and Engagement Toolkit were electronically distributed to human-services partners to provide information in newsletters, email communications, and/or websites. Informational flyers and postcards which could be download, printed, and distributed either in-person or electronically to clients served by human-services partners, were also sent electronically. Presentations to state councils/committee, comprising key human-services provider agencies and advocacy groups, were carefully chosen to maximize number of engaged stakeholders. Presentations, allowing for a two-way exchange of information, were made to eight state councils and commissions between March and July 2018.

**Figure 18: Human-Services Partners Maximized Outreach Efforts**





## COMMUNITY-BASED ORGANIZATIONS

Examples of statewide community-based outreach include the Buddy Walk event in Middletown on May 19, 2018 (shown in Figure 19); the Veterans’ Stand Down event at Schutte Park in Dover on September 21, 2018; and senior center health and wellness fairs in all three counties.

**Figure 19: Posing with Selfie Frames at the 2018 Buddy Walk**



A spring 2018 survey was hosted on Qualtrics and gathered information from current CBOs that receive and are subrecipients of Section 5310 program funds to transport senior citizens and individuals with disabilities. The survey polled respondents on existing specialized transportation services, gaps, and unmet needs of clients. Results are detailed in the November 2018 *Survey Outcomes: Delaware Section 5310 program Funding Subrecipients*, which is available at <http://bit.ly/2rucqb7> (Scott, O’Hanlon, and Polito).



## Senior Centers

Many of the senior centers with which IPA and DTC connected are also Section 5310 program subrecipients that provide transportation services to older adults in Delaware. In addition, members of senior centers are often composed of several transportation-disadvantaged populations (e.g., seniors, persons with disabilities, veterans, and individuals on fixed incomes).

As shown in Figure 20, snapshot surveys (i.e., polling questions) provided informal and in-person engagement with many senior center members throughout the state. Events during which older adults (and those serving older adults) were polled include the fall 2017 Sussex C.A.R.E.S Conference and specific programs held at senior centers in each county. During a December 2017 program held at the Nanticoke Senior Center in Seaford, an audience response system was used to gather real-time opinions regarding transportation needs and issues in Delaware.

Many Delaware senior centers also helped to distribute print information on the Delaware Transportation Needs Assessment Survey via flyers, postcards, and newsletters and electronically via websites and e-communications.

**Figure 20: Snapshot Survey at October 2017 Sussex C.A.R.E.S Conference**



## OTHER GROUPS

Additional groups beyond those categories described above were included in other engagement efforts. For example, presentations were made to the City Managers Association of Delaware, Delaware League of Local Government, Delaware Municipal Clerks, and Sussex County Association of Towns.

## Delaware Vulnerable Populations

It is critical to educate and provide training not only to people with disabilities and their caregivers, but also to emergency planners, first responders, and other members of the community. These individuals play important roles in making sure that people with disabilities are included in emergency preparedness and response plans. In 2013, Delaware established an emergency preparedness planning subcommittee of the Persons with Access, Functional, and Medical Needs (PWAFFMN) Committee to assist the Emergency Medical Services and Preparedness Section’s Office of Preparedness plan for the varied and unique emergency preparedness needs of the PWAFFMN community.

Meetings are held at the Emergency Medical Services and Preparedness Section’s Office of Preparedness and include representatives from multiple state disability council partners, state agencies that serve the targeted population, staff with the Delaware Emergency Management Agency, Delaware Emergency Operations Center, the University of Delaware Center for Disabilities Studies, and the Emergency Medical Services and Preparedness Section’s Office of Preparedness.

IPA met with the PWAFFMN subcommittee on August 23, 2018, for a two-way exchange of information related to emergency preparedness planning for Delaware vulnerable populations. The Functional Information and Support Center (FISC) and Preparedness Buddy are mitigation projects of the PWAFFMN Committee. FISC provides information to augment emergency management community support to vulnerable populations during public health emergencies and is activated both physically and virtually during a disaster with public health impact. FISC offers expertise available to enhance access to unique levels of disability supports in emergent and long-term disaster recovery. FISC provides subject matter experts and agency points of contact to assess a unique or disability specific need. FISC facilitates the connection to agencies, such as the Delaware Emergency Management Agency (DEMA), that can meet the varied needs of the PWAFFMN population.

Through its research and project work, IPA learned that partnerships among the University of Delaware’s Center for Disabilities Studies, the Delaware Division of Public Health, and the Delaware Medical Reserve Corps have enhanced the state’s ability to integrate people with disabilities into emergency preparedness plans and exercises. Activities ensure that people with disabilities have emergency plans, first responders are prepared to assist them during emergencies, and emergency services are accessible and available in accordance with the law.

In fall 2018 and 2019, IPA partnered with Delaware Sea Grant to host two “Ready or Not: Emergency Preparedness Workshops” in Sussex County. The workshops were geared toward

adults over the age of 55, their families, and caretakers to help them prepare for emergencies by addressing their unique needs and concerns. The top three hazards impacting Delaware communities are coastal flooding, nor'easters, and hurricanes. The same natural resources that draw people to coastal communities, such as the opportunity to live by beaches and bays, also make those communities especially vulnerable. Details about participant concerns are detailed in Section V, Assessment of Transportation Needs.

## **Healthcare Centers**

Non-emergency medical transportation was identified as a major issue for transportation-disadvantaged communities. Two IPA information briefs, “Non-Emergency Medical Transportation and Delaware’s Aging Population” and “Non-Emergency Medical Transportation for Veterans” are forthcoming and will be published electronically. These briefs detail the importance of access to non-emergency medical care and explain how access to non-emergency medical transportation serves as a social determinant of health.

Outreach was also targeted to healthcare centers in Delaware. Site visits were made to distribute two-sided, bilingual informational flyers to the La Red Health Center, Beebe Healthcare, and Nanticoke Health Services in Sussex County; and Veterans Affairs Community-Based Outpatient Clinics (CBOCs) in Dover and Georgetown. Information was distributed and a presentation was made at a “Town Hall” meeting on July 25, 2018, at the Wilmington Veterans Affairs (VA) Medical Center.

## **Nemours Children’s Health System**

Nemours Children’s Health System administered the “Nemours Community Facilities in Delaware Questionnaire.” The questionnaire focused on missed or late medical appointments due to transportation issues at six Nemours duPont Pediatrics primary care sites and the Alfred I. duPont Hospital for Children in Delaware. Survey responses were collected during a short period in summer 2018 when it was piloted at two primary care sites and then again during September 2018 in multiple sites.

Nemours received 72 completed surveys that were reviewed and analyzed. Another 25 incomplete surveys submitted were not included in the analysis due to missing data on transportation mode. According to a memo from Nemours (Appendix F), questionnaire results provided “just a snapshot of the transportation needs of the Nemours patient population, and do not reflect a comprehensive picture since we did not have the participation of as many sites as anticipated.” Respondents reported reasons for missed appointments due to the following transportation issues:

- 12 – LogistiCare
- 5 – Unclear
- 5 – Public transit
- 9 – Walking
- 6 – Rides from family/friends/others
- 41 – Personal vehicles

While not statistically significant, survey outcomes provided an overview of transportation barriers to access medical care at Nemours facilities. This data-collection exercise was beneficial/useful in that it:

- Helped identify transportation problem areas.
- Generated greater attention to transportation barriers to access to medical appointments across the board at Nemours healthcare facilities.
- Highlighted the need for ongoing data collection.
- Provided data to improve accountability/communications with the state’s transportation broker (for quarterly meetings).
- Provided useful data to screen for social determinants of health.
- Is potentially replicable for use by other health care providers in Delaware.

### *Outreach and Engagement Activities*

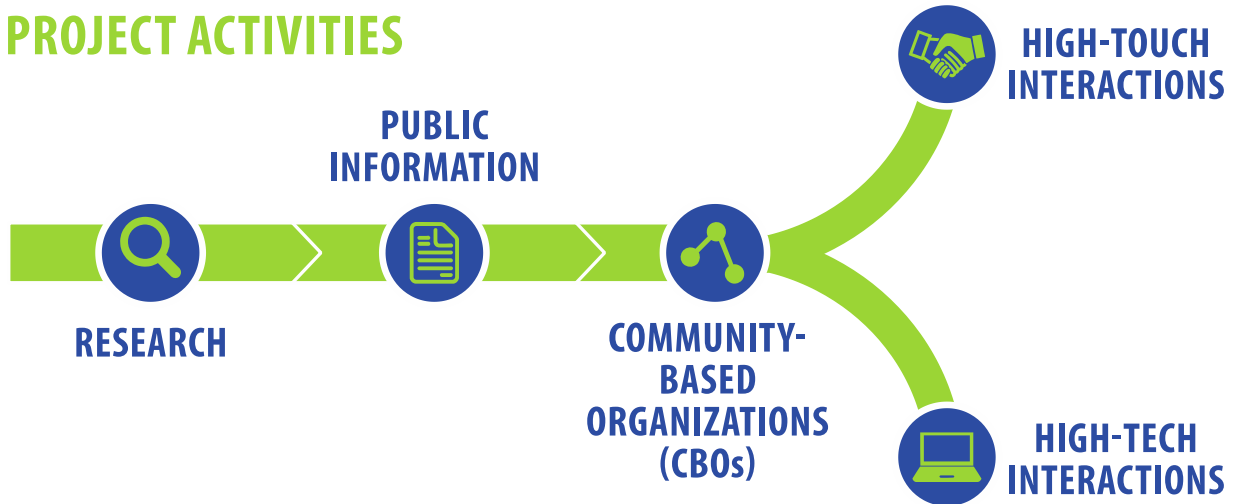
As illustrated in Figure 21, five main public outreach and engagement activities were implemented to provide critical input in the development of Delaware’s Coordinated Plan:

- 1. Research:** Stakeholder interviews, teleconference calls, and survey research.
- 2. Public Information:** Written materials, news releases, public notices, information briefs, and presentations.
- 3. Community-Based Organizations (CBOs):** Engagement with statewide CBOs to reach transportation-disadvantaged populations via established networks, channels of communication, and events.
- 4. High-Touch Interactions:** In-person stakeholder interviews and outreach, regional public workshops, tabling in collaboration with the DTC/DART First State communications team at community events, interactive snapshot surveys, DOT exercises, ARS polling, and interactive visual tools (e.g., “selfie” frame cut-outs), and crowdsourcing on first- and last-mile accessibility to transit stops and hubs.



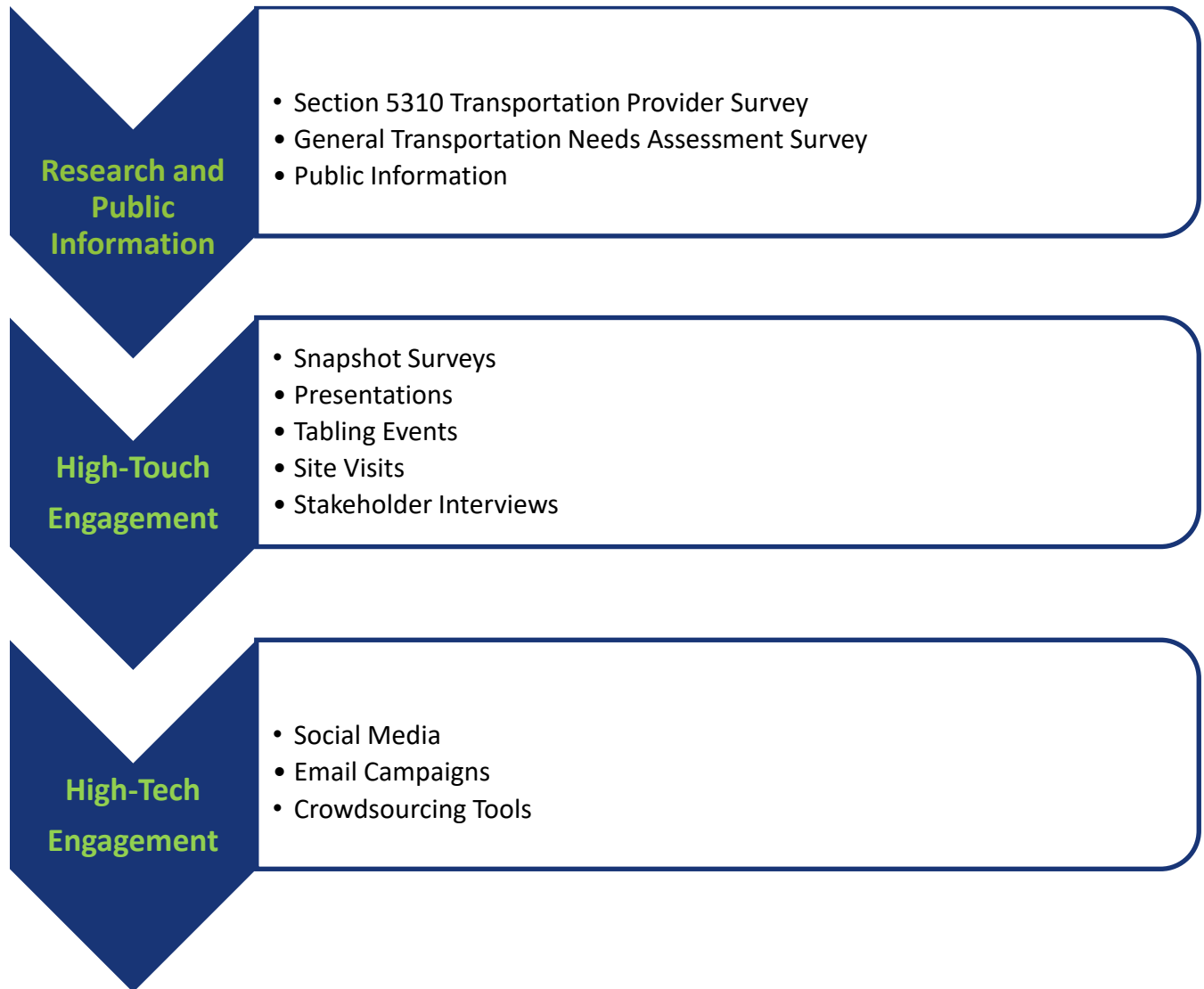
5. **High-Tech Interactions:** Establishment of a “*Mobility in Motion*” webpage hosted by RideShare Delaware as a portal for communication and an online Transportation Needs Assessment Survey; web-based interactive communications; social media posts; outreach via e-newsletters of CBOs; and online crowdsourcing tools on first- and last-mile transit connectivity.

**Figure 21: Five Main Outreach and Engagement Activities**



As detailed in both the *Public Outreach and Engagement Plan* and the Outreach Toolkit, the *Mobility in Motion* initiative was promoted using both “high-touch” (in-person) and “high-tech” (web-based/electronic) interactions between October 2017 and October 2018. Multiple surveys and events were undertaken as research activities to collect information from stakeholders about transportation needs. Figure 22 summarizes the outreach and engagement activities. Additional explanation of these activities is provided below.

Figure 22: Summary of Outreach and Engagement Activities



## RESEARCH

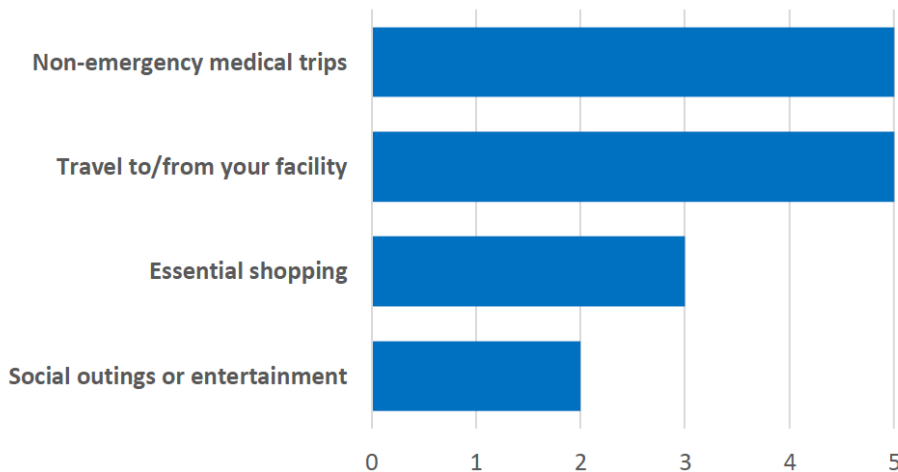
### Section 5310 Transportation Provider Survey Responses

The Section 5310 transportation provider survey was administered in spring 2018. IPA's November 2018 *Survey Outcomes: Delaware Section 5310 program Funding Subrecipients* details results of the survey and is available online <http://bit.ly/36BwwPU>. The survey was distributed electronically to specialized transportation providers in Delaware that receive funds under the Federal Transit Administration's (FTA) Enhanced Mobility of Seniors & People with

Disabilities (Section 5310) program. The survey was designed to gather information on existing specialized transportation services, gaps and unmet needs of clients, and opportunities to address identified gaps.

The survey generated 33 out of 43 responses—a return rate of 77 percent. A majority of survey respondents (67%) primarily operate in New Castle County. Respondents reported that nearly half (48%) of their agency clients/members communicated “often” having difficulty with traveling to non-emergency medical appointments followed by travel to social outings/entertainment (33%) and essential shopping (36%). Survey respondents indicated that in addition to transportation services they provide or coordinate, over half (52%) of their clients also utilized other transportation services on a routine basis—including paratransit (30%), personal vehicles (23%), and fixed-route buses (21%). As shown in Figure 23, of the 15 agencies (45%) that accurately responded, five selected non-emergency medical trips and travel to/from the facility as their most frequent trip location. The next most frequent answers were essential shopping (3) and social outings or entertainment (2).

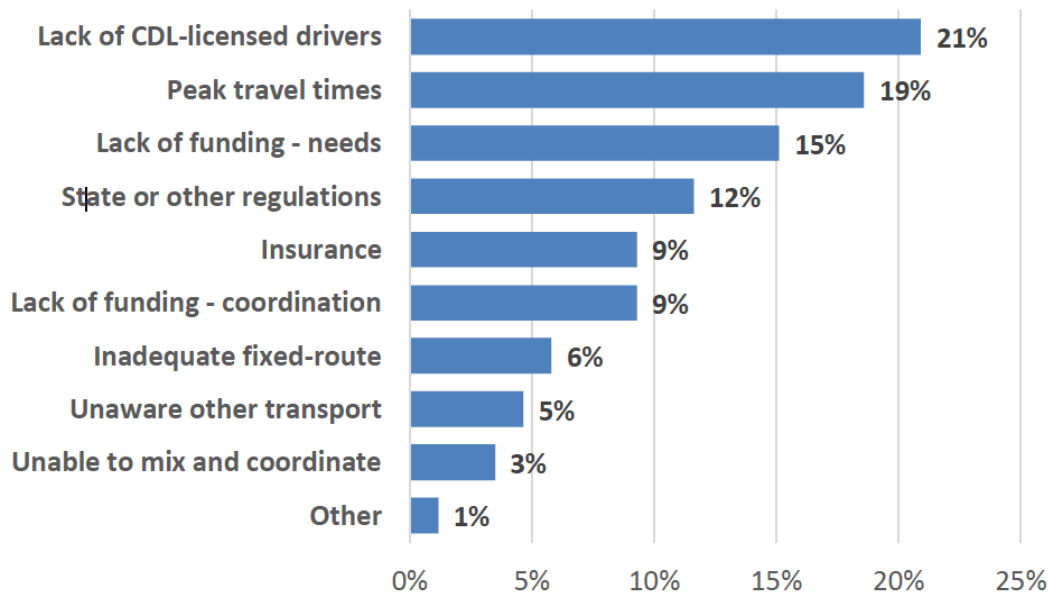
**Figure 23: Most Frequent Trip Locations by Section 5310 Agencies (n = 15)**



Survey respondents expressed high interest in coordinating transportation services through cooperative travel training, joint staff training, and public marketing and public information. Of the eight agencies that reported they are currently providing some sort of service coordination, seven are located in New Castle County, one is located in Kent County, and none are located in Sussex County. Yet, as shown in Figure 24, key obstacles to service coordination are the lack of CDL-licensed drivers, overlap of peak travel times with nearby agencies, and funding current service needs. Few (6) respondents reported interest in sharing vehicles. Fifteen reported only having one vehicle. It should be noted that sharing vehicles may

not be viable in rural service areas with long travel distances and in cases where agencies are transporting medically fragile clients who require caregiver assistance during transport.

**Figure 24: Barriers to Coordination – Section 5310 Transportation Providers (n = 33)**



Survey respondents also suggested strategies needed to improve the coordination of public transit and human-services transportation, such as more affordable transportation options, provision of fixed-route stops as state service centers, a “senior-friendly” [transportation] system, expansion of Sussex County public transportation, and improved bus-stop accessibility.

### Delaware Transportation Needs Assessment Survey Responses

A Delaware Transportation Needs Assessment Survey of the general public was conducted to better understand perceptions about statewide transportation access. The survey was promoted at various events. IPA’s January 2019 *Outcomes Report: Delaware Transportation Needs Assessment Survey* details survey results and is available electronically at <http://bit.ly/DETranspNeedsSurvey>.

Survey questions were designed to gather data on respondents’ transportation needs; transportation barriers; and the use of, opinions about, and barriers to using public transportation in Delaware. Data was gathered to collect demographic information and provide a better understanding of needs of transportation-disadvantaged populations. The survey utilized a cross-sectional design with a mixed-methods approach consisting of multiple choice, short answer, Likert scale, ranked-choice response, and open-ended response categories.

Between May 1 and October 9, 2018, a total of 765 recorded responses to the English version of the survey were generated. Due to the percentage of Hispanics who comprise the state’s population, a Spanish version was also designed and launched. While targeted outreach was conducted to the Hispanic and Latino populations in Delaware, there were no responses to the Spanish version. Survey responses were overrepresented among participation by white, English-speaking women and persons residing in New Castle County. Nearly half of the respondents were between the ages of 45 and 64, and 53 percent of respondents indicated annual incomes between \$50,000–\$100,000+. Over 90 percent of respondents have access to a smart device or personal computer with Internet access.

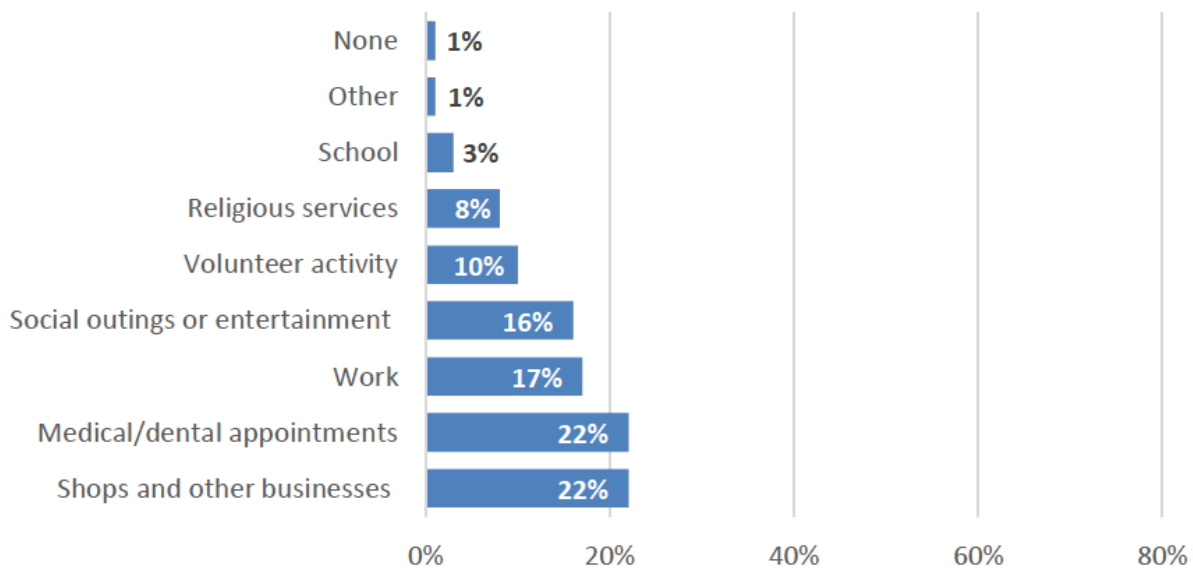
A series of questions was designed to gather data on respondents’ modes of transportation and identify factors related to their use of public transportation. About 86 percent of the 578 respondents reported being “active drivers,” and the majority of both active and inactive drivers reported not using mobility devices. About 90 percent of the 578 respondents reported owning at least one car. Among the 58 respondents with annual incomes of less than \$25,000, 40 percent reported being from no-car households and 45 percent owning at least one car. This information suggests that driving status and car ownership correlates more to annual income levels rather than one’s degree of personal mobility in Delaware.

Personal vehicles were reported as the primary means of transportation for 77 percent of the 737 respondents. However, 44 percent of respondents from low-income households rely on rides from others, and 33 percent use public transit as their primary means of transportation. Nine percent of 669 respondents reported that they used DART First State Paratransit. Low-income individuals report a greater reliance on the state’s paratransit services compared to other income groups.

Several questions were designed to identify factors and respondents’ attitudes toward using public transportation in Delaware. Thirty-one percent of the 668 respondents indicated that they ride public transit in Delaware. Transit ridership does not seem to be affected by respondents’ income levels. Regardless of income, **very important** factors in deciding whether to take the bus are (1) feeling safe and comfortable riding public transit, (2) finding information, and (3) addressing first- and last-mile transit connectivity. Making services more frequent and increasing the number of routes were cited as factors that would encourage public transportation usage. Flex routes, additional information on available transportation options, and non-emergency medical transportation were selected as improvement priorities related to mobility and transportation services coordination.

The majority of respondents indicated having experienced barriers to transportation in Delaware, with 75 percent of the 681 respondents reporting being unable to travel due to lack of transportation in the past six months. Nearly half of the 159 respondents reported staying home in the past six months because they did not have access to convenient transportation. Respondents of all ages and income levels reported missing trips due to lack of convenient transportation options. Missing trips to the following were included (1) shops and other businesses, (2) social outings or entertainment, (3) work, and (4) medical/dental appointments. As displayed in Figure 25, when asked if they would be unable to drive in the future, over one-fifth of respondents anticipated most needing transportation to shops and other businesses and medical/dental appointments.

**Figure 25: Destinations Where Respondents Anticipate They Will Need Transportation, If Unable to Drive in the Future (n = 582)**



Answers to the open-ended question “What changes would you like to see regarding bus services in Delaware?” were coded into eight categories. The most recurrent of the 199 responses focused on issues of route frequency, new or expanded service suggestions, and route offerings. Other categories of suggested changes were accessibility, implementation, technology issues, and on-time transit services. Several broad themes emerged from responses to both open-ended questions. These include the need to increase public transportation options, address customer service needs, improve bus stop/bus amenities, and other suggestions.



## PUBLIC INFORMATION

To support public outreach and engagement efforts, several types of material were developed. IPA worked with DTC, DelDOT, and RideShare Delaware staff to develop clear, concise, and engaging information to support public involvement efforts. Using the *Mobility in Motion* brand guide, Outreach Toolkit, and promotional products, information was disseminated via websites, news releases, organization newsletters, flyers, print material, DART First State passenger notices and rider alerts, and social media.

As shown in Figure 26, a *Mobility in Motion* project webpage ([www.MobilityDE.org](http://www.MobilityDE.org)) was established within RideShare Delaware’s website. It served as a portal for communication on the development of the Coordinated Plan and outreach activities, web-based interactive communications, social media posts, outreach via e-newsletters of partners, “virtual” public workshops, and method for dissemination of promotional materials.

**Figure 26: *Mobility in Motion* Webpage**

### How can you help shape the future of mobility in Delaware?

#### Why should Delawareans care about mobility?

Personal mobility is often taken for granted, but is essential to one’s quality of life. Reliable transportation is needed to connect Delawareans to jobs, education, healthcare, social and community services, and other life-sustaining services. Yet, many Delaware residents are unable to provide their own transportation or have difficulty accessing public transportation. Transportation-disadvantaged individuals may face barriers to reliable transportation due to disability, income, age, inability to drive, lack of car ownership, veteran’s status, or a combination of reasons.

#### What is *Mobility in Motion*?

The state of Delaware recognizes the importance of personal mobility. The Delaware Transit Corporation (DTC), operating as [DART First State Transit](#), has launched ***Mobility in Motion***. This initiative invites Delawareans to envision and provide critical input on the future of mobility in Delaware.

#### How will information be used?

Information gathered will be used to update the [Coordinated Public Transit—Human Services Transportation Plan](#), or “Coordinated Plan,” for the State of Delaware. Developed through a participatory planning process, the Coordinated Plan will serve as a strategic framework for addressing the state’s existing and future mobility needs.

A Technical Advisory Committee (TAC) has been appointed by DTC and has been charged with helping the agency meet new federal requirements while providing strategies and considerations for updating the Coordinated Plan.

In addition, DTC, DeIDOT, RideShare Delaware, and the Delaware Complete Communities Planning Toolbox each provided “newsy” banners on their website homepages, which linked to the *Mobility in Motion* webpage on RideShare Delaware’s website. The DTC/DART First State marketing and public affairs team supported outreach and engagement during the survey period as follows:

- Postcards – Taken to and distributed at DART First State tabling events from June to September 2018.
- Flyers at bus shelters – Posted at major hubs in July 2018.
- Passenger notices – Printed and distributed to bus passengers between July and September 2018.
- Tabling events – Promoted at public events from June to September 2018.
- News releases – Issued by RideShare Delaware and DTC on August 23, 2018.
- Rider alerts – Issued with links to surveys through DART’s rider subscription service (8/21).
- Social media on Facebook (FB):
  - August and September 2018 (8/21, 8/22, 8/24, 8/28, 9/4, 9/12, 9/17, 9/20, 9/25, and 9/29) – FB posts (no metrics provided).
  - July 2018 (7/27) – Shared two Complete Communities Delaware FB posts (41 and 39 people reached, respectively).
  - June 2018 (6/5 and 6/20) – FB post (155 and 164 people reached, respectively).
  - May 2018 (5/18 and 5/28) – FB post (1,450 and 1,112 people reached, respectively).



## HIGH-TOUCH INTERACTIONS

High-touch strategies use in-person methods of outreach. High-touch strategies were used at various locations, including senior centers, conferences, presentations, tabling, and site visits. They rely on engagement through human interaction, whether face-to-face at a tabling event or in a group setting during a presentation. They also allow for the involvement of diverse stakeholders by facilitating personal connection and data collection through interpersonal communication. High-touch interactions are time-consuming and labor-intensive methods and require committed partnerships and resources to be accomplished.

There were many opportunities for two-way communications during the *Mobility in Motion* outreach process. To track high-touch performance metrics, IPA compiled a list of all events from October 2017 through October 2018 and tallied public participation. Each event was grouped into one of four categories: (1) site visit, including visits to farmers markets, bus stops,



and transit hubs, (2) presentation, (3) tabling event, or (4) senior center visit. As shown in Figure 27, the tally of high-touch outreach was integrated into a Google Map that pins locations of outreach locations in Delaware and color-codes each “pinned” location based on the type of outreach. Overall, there were over 71 high-touch outreach events including 17 presentations; 29 site visits to transit hubs, bus stops, and farmers’ markets; and tabling at 15 community events. With over 900 people attending 33 events in New Castle County, over 600 people attending 22 events in Kent County, and over 300 people attending 16 events in Sussex County, more than 1,800 people were engaged during the project period.

**Figure 27: Map of High-Touch Outreach in Delaware**



### Snapshot Surveys

In fall 2017, IPA conducted snapshot surveys at nine senior centers across the state, including:

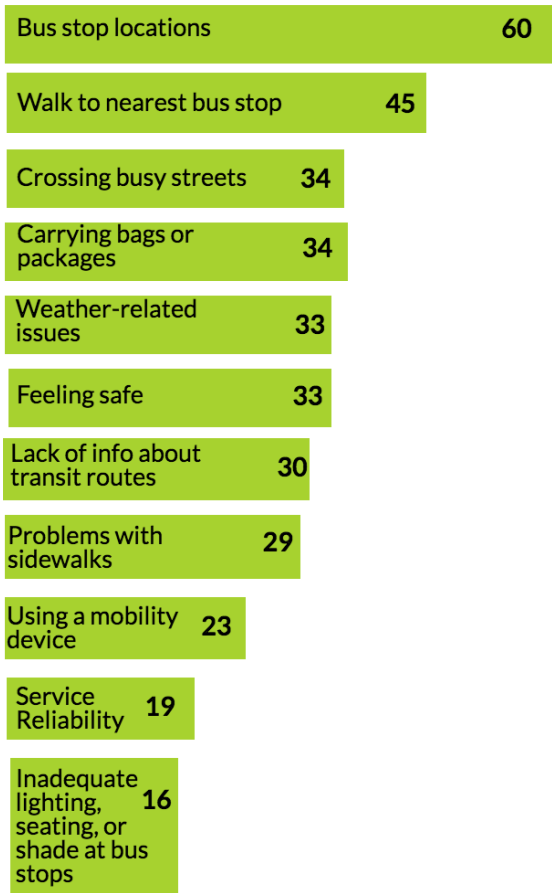
- Frederica Senior Center
- Howard J. Weston Senior Center
- Lewes Senior Center
- Mid-County Center, Inc.

- Modern Maturity Center
- Nanticoke Senior Center
- Newark Senior Center
- New Castle Senior Center
- St. Anthony’s Senior Center

Snapshot Surveys provided a user-friendly means to gain an understanding from senior center members of their (1) primary transportation modes and needs, (2) barriers to using public transportation, and (3) priorities to improve mobility and transportation in Delaware. A total of 240 senior center members participated, including 95 people from New Castle County, 51 people from Kent County, and 94 people from Sussex County. When asked about their primary modes of transportation, the top response was personal vehicles followed by rides from family, friends, and caregivers; paratransit; and public transportation. Places they were unable to travel due to lack of transportation included (1) running errands, (2) social outings, (3) doctor appointments, and 4) religious activities. Figure 28 displays barriers to using public transportation and the five top priorities identified to improve mobility and transportation in Delaware. A graphic summarizing snapshot survey results is provided in Appendix G.

**Figure 28: Delaware Senior Center Snapshot Survey Results**

**Barriers to Using Public Transportation:**



**Presentations**

There are several governor-appointed committees and councils that are tasked with providing advice to state agency directors on programs and projects that benefit targeted populations, including transportation-disadvantaged individuals. IPA and DTC met with select committees and councils for facilitated discussions regarding the development of the Coordinated Plan and draw out specific feedback. These sessions served to (1) educate committee and council members about the Coordinated Plan and (2) create a large secondary group of knowledgeable people and organizations able to disseminate information and encourage further public involvement. IPA made presentations to eight state councils and commissions between March and July 2018, including:

- Council on Services for Aging and Adults with Physical Disabilities – March 13, 2018
- Delaware Commission of Veterans Affairs (DCVA) – March 20, 2018
- Delaware’s Council for Persons with Disabilities – April 16, 2018

- Governor’s Advisory Council for Exceptional Citizens – April 17, 2018
- DTC’s Elderly and Disabled Transit Advisory Committee (EDTAC) – May 9, 2018
- Delaware Aging Network – July 10, 2018
- Delaware Developmental Disabilities Council – July 18, 2018
- DeIDOT’s Advisory Council on Walkability and Pedestrian Awareness – July 24, 2018

## Tabling Events

Tabling events, as pictured in Figure 29, provided an opportunity for informal discussions about transportation and mobility issues and concerns. High-touch strategies also provided an effective way for “pushing” or disseminating information.

IPA and DTC staff collaboratively identified events to attract the general public and/or have significant reach in attracting transportation-disadvantaged individuals. Tabling activities included visually impactful “DOT” polling posters, infographics, photo ops with “selfie” frames, and/or videos that provided project information. Workshops and community events were good opportunities for public engagement. For example, hosting a table at the 2018 and 2019 “Ready or Not? Emergency Planning for Older Adults and Individuals with Disabilities” workshop in Lewes, Delaware, provided an opportunity to engage with subpopulations that may be in particular need of transportation options. A full listing of events attended is available in Appendix H.

Figure 29: Interactive outreach at tabling event



IPA staff, in coordination with DTC, attended a variety of events and locations for engagement purposes. This included bus stops, farmers’ markets, public workshops, council meetings, and transit hubs in all three Delaware counties. The map, previously shown in Figure 27, indicates the locations for each of these site visits.

## Stakeholder Interviews

IPA also conducted interviews with stakeholders who represent transportation planning and services. These included transit and health representatives, including Cecil Transit; Wilmington Area Planning Council (WILMAPCO) that serves as the MPO for New Castle County, Delaware

(and Cecil County, Maryland); care coordinators with Nemours duPont Pediatrics; and the DTC/DART First State marketing and public affairs officer.



## HIGH-TECH INTERACTIONS

High-tech strategies were often used in conjunction with high-touch strategies. At some events, for example, personal interactions were combined with opportunities to take electronic surveys. Other high-tech strategies involved websites, social media, and email campaigns.

### Websites

The *Mobility in Motion* webpage ([MobilityDE.org](http://MobilityDE.org)) was hosted on the RideShare Delaware website. It served as the primary portal for public information about the project; Delaware Needs Assessment Survey; first- and last-mile crowdsourcing tools; and Technical Advisory Committee meeting agendas, minutes, and presentations.

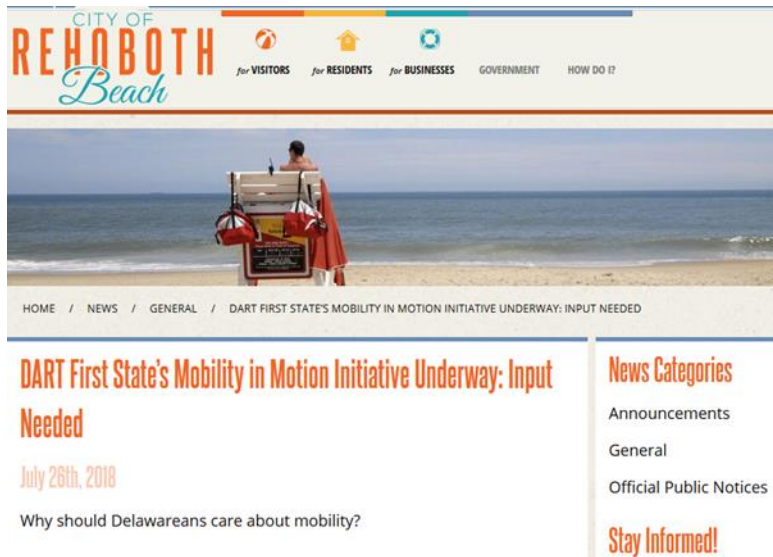
In addition to the *Mobility in Motion* webpage, several Delaware municipalities and senior centers shared the information on their websites. As illustrated in Figures 30 and 31, both the Town of Fenwick Island and the City of Rehoboth Beach included *Mobility in Motion* project information on municipal websites to both engage and inform residents.

Figure 30: Fenwick Island Website Post





Figure 31: Rehoboth Beach Website Post



## Social Media

Both Twitter and Facebook were used to engage the public. Posts originated from multiple sources, including the Delaware Complete Communities Planning Toolbox’s social media accounts. These posts were “liked” and “shared” on both platforms, as well as retweeted on Twitter from a wide variety of social media accounts. In summary, using the Delaware Complete Communities Planning Toolbox’s Twitter and Facebook accounts, 175 stakeholder organizations were engaged via 452 general and targeted social media posts. Figure 32 provides a summary of high-touch and high-tech outreach conducted by IPA throughout Delaware from March to October 2018.

Figure 32: High-Touch and High-Tech Outreach



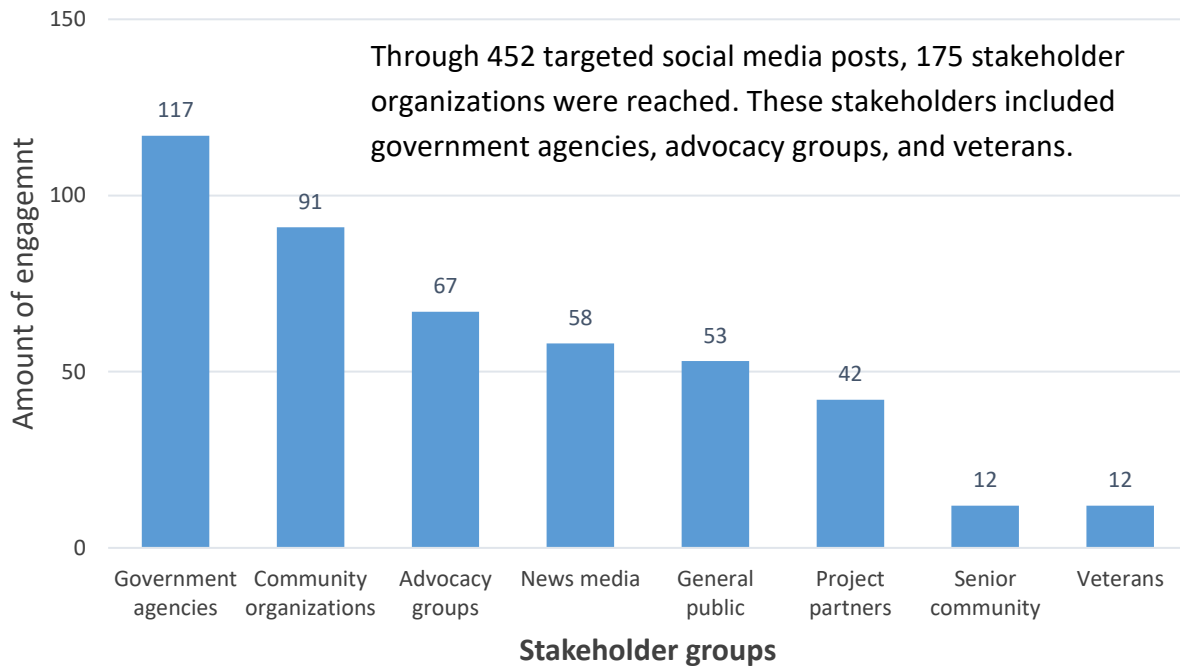
Figure 33 provides examples of social media posts made by DART First State and the IPA project team via the Delaware Complete Communities Planning Toolbox social media platforms.

Figure 33: Social Media Posts



Through the Delaware Complete Communities Planning Toolbox’s Twitter (@CompCommunitiesDE) and Facebook (@CompleteCommunitiesDE) platforms, the *Mobility in Motion* team sent out over 450 social media posts. Each post was documented in a list stating the intended target group for the post and the date of outreach. From April 2018 to October 2018, over 175 stakeholders were contacted via social media. Each stakeholder was grouped into one of eight categories: government agencies, community organizations, advocacy groups, news media, general public, project partners, senior community, or veterans. These posts were designed to increase high-tech engagement by diverse groups of people. The posts elicited engagement from a wide variety of target audiences as shown in Figure 34.

**Figure 34: Social Media Posts (n = 452)**



## Email

MailChimp, an email marketing platform, was used as the primary platform for email campaigns communications. Throughout the *Mobility in Motion* project, several MailChimp campaigns were created to disseminate information on:

- **Section 5310 Transportation Provider Survey** – 43 recipients received a campaign and electronic links to the Section 5310 provider survey on March 20 and April 24, 2018.
- **Delaware Needs Assessment Survey** – Targeted groups included:
  - 159 CBOs (minus Section 5310 providers) received a campaign on May 14, 2018.
  - 45 Section 5310 transportation providers received a campaign on June 27, 2018.
  - 128 Delaware Aging Network (DAN) members received a campaign on July 12, 2018.
  - 40 members of the City Management Association of Delaware received a campaign on July 18, 2018.
- **Technical Advisory Committee (TAC)** – 16 campaigns were sent to 41 recipients between February 3 and November 5, 2019, to provide meeting dates and materials.



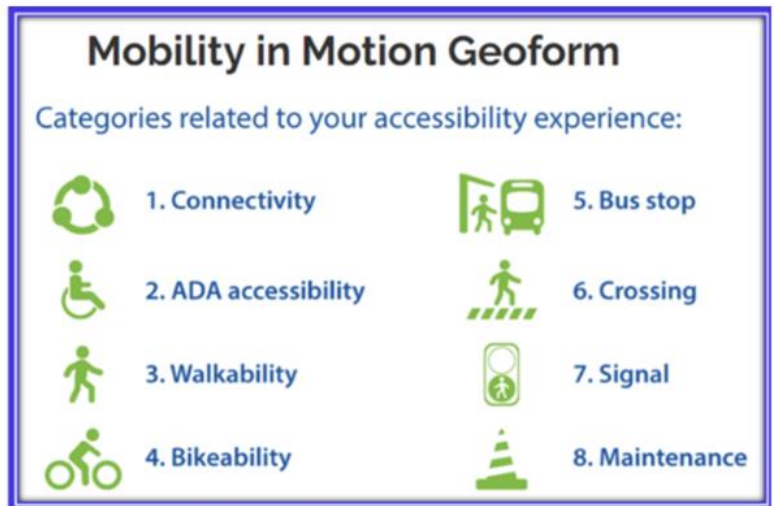
## First- and Last-Mile Transit Connectivity Crowdsourcing Tools

Barriers to riding transit may include “incomplete” streets that lack safe, connected, and well-maintained infrastructure for pedestrians, bicyclists, and people with disabilities; some bus stops may lack amenities such as shelters or lighting.

Crowdsourcing involves the use of web- and mobile-based applications (apps) to obtain information, insight, and knowledge from the public. IPA developed three map-based crowdsourcing tools on first- and last-mile bus stop accessibility in Delaware to obtain information from DART First State transit riders on first- and last-mile accessibility barriers walking, biking, or rolling to/from a transit stop or hub in Delaware. Each of the crowdsourcing tools sought input from DART First State bus riders on their accessibility experience related to eight factors, including (1) connectivity, (2) ADA accessibility, (3) walkability, (4) bikeability, (5) bus-stop conditions, (6) crossing, (7) signals, or (8) maintenance. As shown in Figure 35, first- and last-mile transit connectivity crowdsourcing tools included a WikiMap, GeoForm, and GIS Crowdsourcing StoryMap.

- WikiMap** (<https://bit.ly/2IDIfRs>)
  - Transit riders could follow a step-by-step process upon hitting a “welcome” button and opening up “points.” Users could simply select one of eight icons that represent categories of accessibility, answer brief questions, and click on a map “point” to provide comments

Figure 35: Crowdsourcing Tools



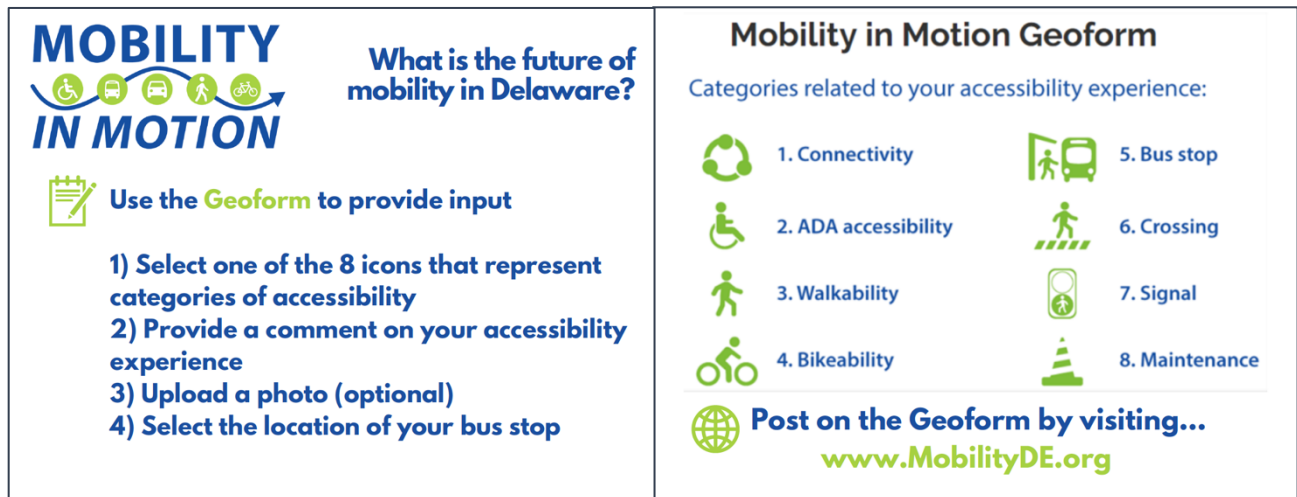
and photo (optional) of their accessibility experience at that location.

- **Geoform** (<https://bit.ly/2tWMa6L>) – Transit riders could select one of the eight icons that represent categories of accessibility, provide a comment on their accessibility experience, upload a photo (optional), and select the location of their bus stop.
- **GIS Crowdsourcing Story Map** (<https://bit.ly/2IGWY51>) – The geographic information system (GIS) Story Map required transit riders to snap and upload a photo related to their bus stop accessibility experience. Once the photo is uploaded, users could provide a title (related to the eight accessibility categories), locate their bus stop on the map, and describe their accessibility experience.

### Dissemination

The crowdsourcing tools were available on the *Mobility in Motion* website and via a separate URL ([www.MobilityDE.org](http://www.MobilityDE.org)). IPA also designed and printed informational postcards (displayed in Figure 36) for each of the three crowdsourcing tools and provided design files to the DTC marketing team.

Figure 36: Geoform Postcard

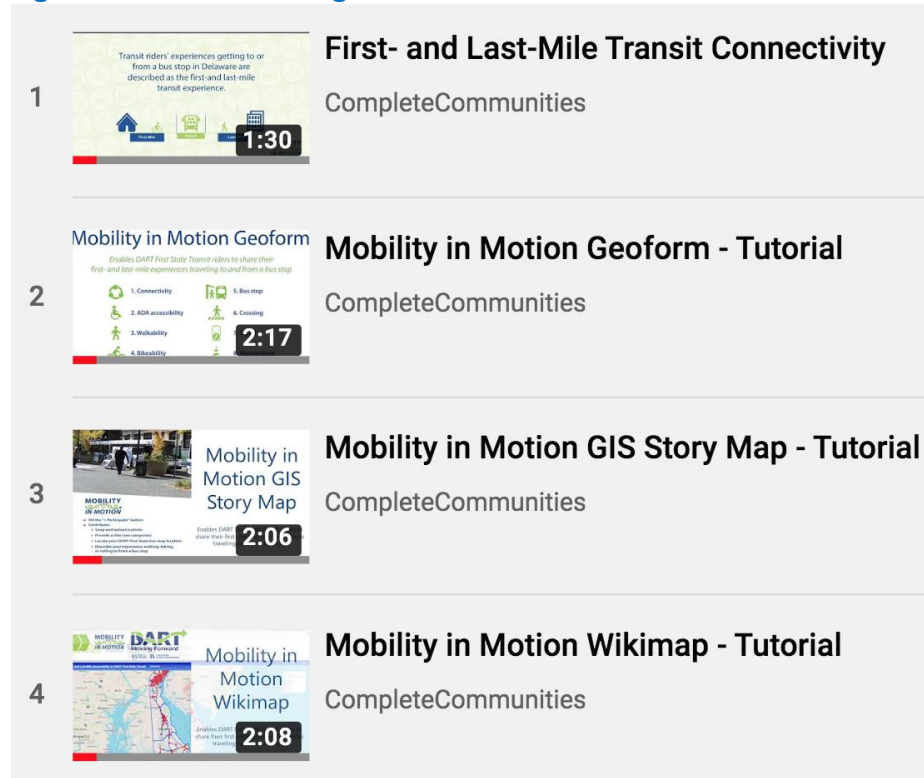


To promote the use of crowdsourcing as an effective tool, IPA produced a First- and Last-Mile Transit Connectivity video, which describes why addressing first- and last-mile transit connectivity can reduce barriers to transit usage. Three additional tutorial videos were also produced and published to explain how to access and use each crowdsourcing tool. As illustrated in Figure 37, all videos were uploaded to a *Mobility in Motion* playlist (<http://bit.ly/2QsfxKT>) on IPA’s Complete Communities YouTube Channel and available for public viewing. Views and impressions (how many times a thumbnail was seen by a viewer) by video, over a ten-month period from December 28, 2018 to October 31, 2019 were as follows:

- First- and Last-Mile Transit Connectivity video – 160 views, 1,140 impressions

- *Mobility in Motion* Geoform Tutorial – 43 views, 443 impressions
- *Mobility in Motion* GIS Story Map Tutorial – 40 views, 513 impressions
- *Mobility in Motion* WikiMap Tutorial – 28 views, 449 impressions

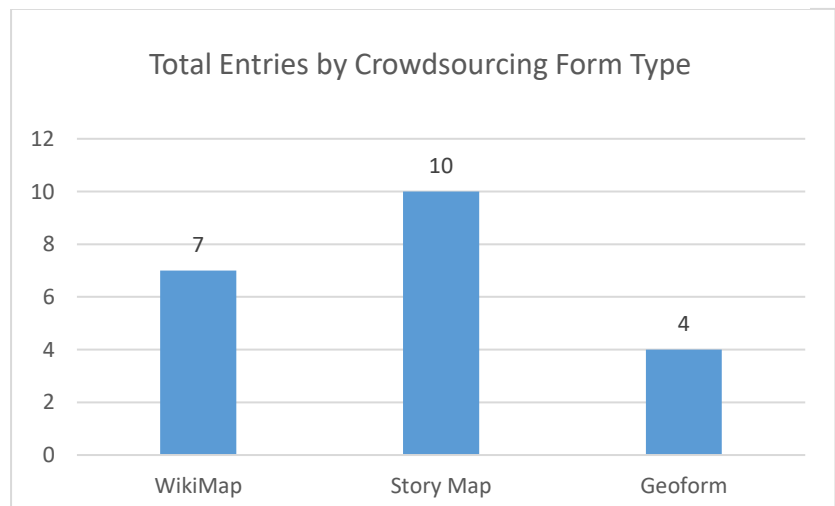
**Figure 37: Crowdsourcing Tools Videos**



**Mobility in Motion Crowdsourcing Tools Analysis**

An analysis of the crowdsourcing tools usage is included in this report as Appendix I. In total, 21 responses were submitted to the crowdsourcing forms. The Story Map platform received the most responses, while the Geoform received the least (see Figure 38). Of the 21 responses, the majority focused on New Castle County (NCC). NCC, Kent County, and Sussex County were the locations of 17 (81%), 4 (19%), and 0

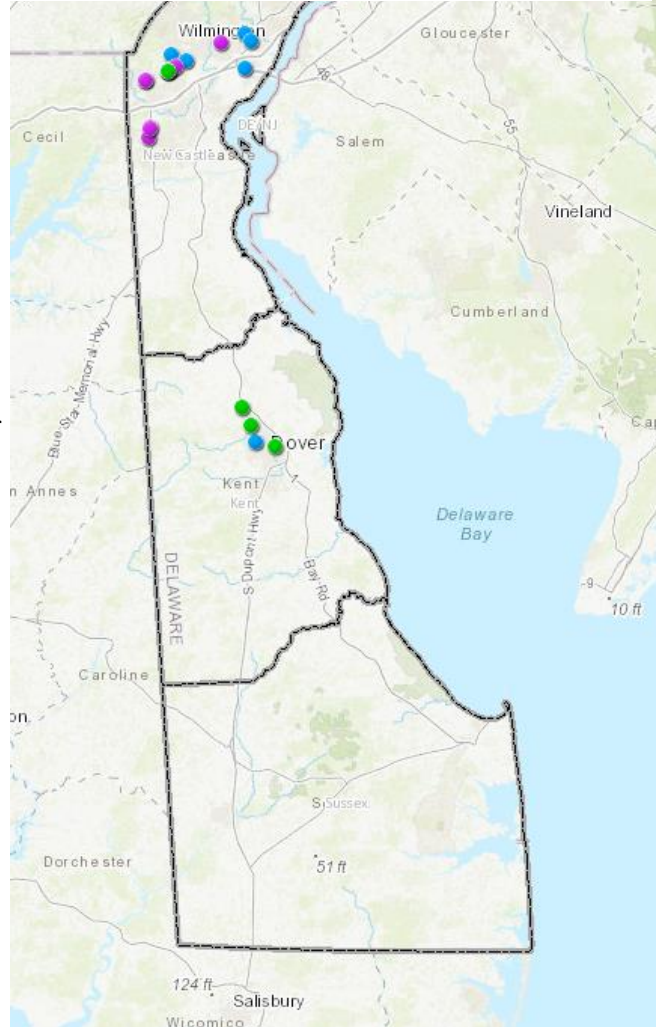
**Figure 38: Responses by Form type (n = 21)**



responses, respectively. Within this breakdown, it should be noted that while Kent County had few responses overall, three out of the four Geoform responses were located in Kent County. All GIS Story Map responses and six out of seven WikiMap responses were located in NCC. Notably, no responses pertaining to Sussex County were submitted.

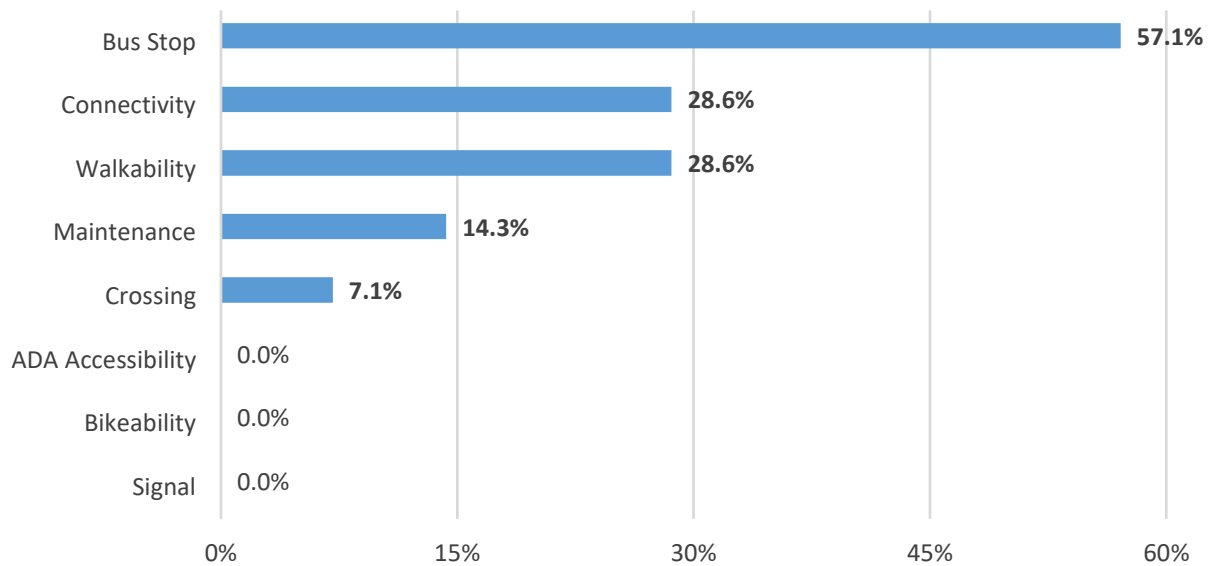
Figure 39 illustrates the areas with a high number of responses (see Figure 39). All four Kent County responses focused on the area near Dover, ranging from the center of Dover to the suburb known as Cheswold. In New Castle County, 11 or 81 percent of NCC responses were located along the Newark to Wilmington Corridor. Of those 11 responses, 8 or 47 percent, concerned the Capitol Trail/Kirkwood Highway route. One bus stop along this route received four responses, each indicating that a lack of sidewalk was a problem at this location. With almost half of the NCC responses focusing on the Capitol Trail/Kirkwood Highway route, the results indicate that the Capitol Trail/Kirkwood Highway route is an area of concern for the public and should be studied for improvement.

**Figure 39: Map of Crowdsourcing Responses**  
**Blue Circle – WikiMap Response**  
**Pink Circle – Story Map Response**  
**Green Circle – Geoform Response**



Of the eight categories offered in the Story Map and Geoform responses, only five were mentioned in responses. For the 14 Story Map and Geoform responses (see Figure 40), category counts as a number and as a proportion of the 14 responses can be broken down as follows: eight bus stop responses (57%); four connectivity responses (29%); four walkability responses (29%); two maintenance responses (14%); and one crossing response (7%). The high prevalence of responses reporting connectivity, walkability, and bus stops concerns suggests that future assessment of transportation routes should focus on the ability to walk safely to and from bus stops.

**Figure 40: Proportion of the Total Geoform and Story Map Responses That Were Assigned Each Category (n = 14)**



Several additional themes emerged from the crowdsourcing usage analysis. First, nine of the responses indicated sidewalk problems. Of these nine, seven indicated lack of a sidewalk/continuous sidewalk leading to a bus stop. The other two responses reported that the sidewalks leading to bus stops were not well maintained. These results suggest sidewalk connectivity should be a focus of further assessment. Second, five of the responses reported safety concerns related to dangerous pedestrian–vehicle interactions. These responses reported busy roads and high traffic speeds that created dangerous conditions for waiting at and walking to/from bus stops. As such, these results suggest that future work might include safety and traffic-calming assessments along these routes.

### ***Outcomes of Outreach and Engagement***

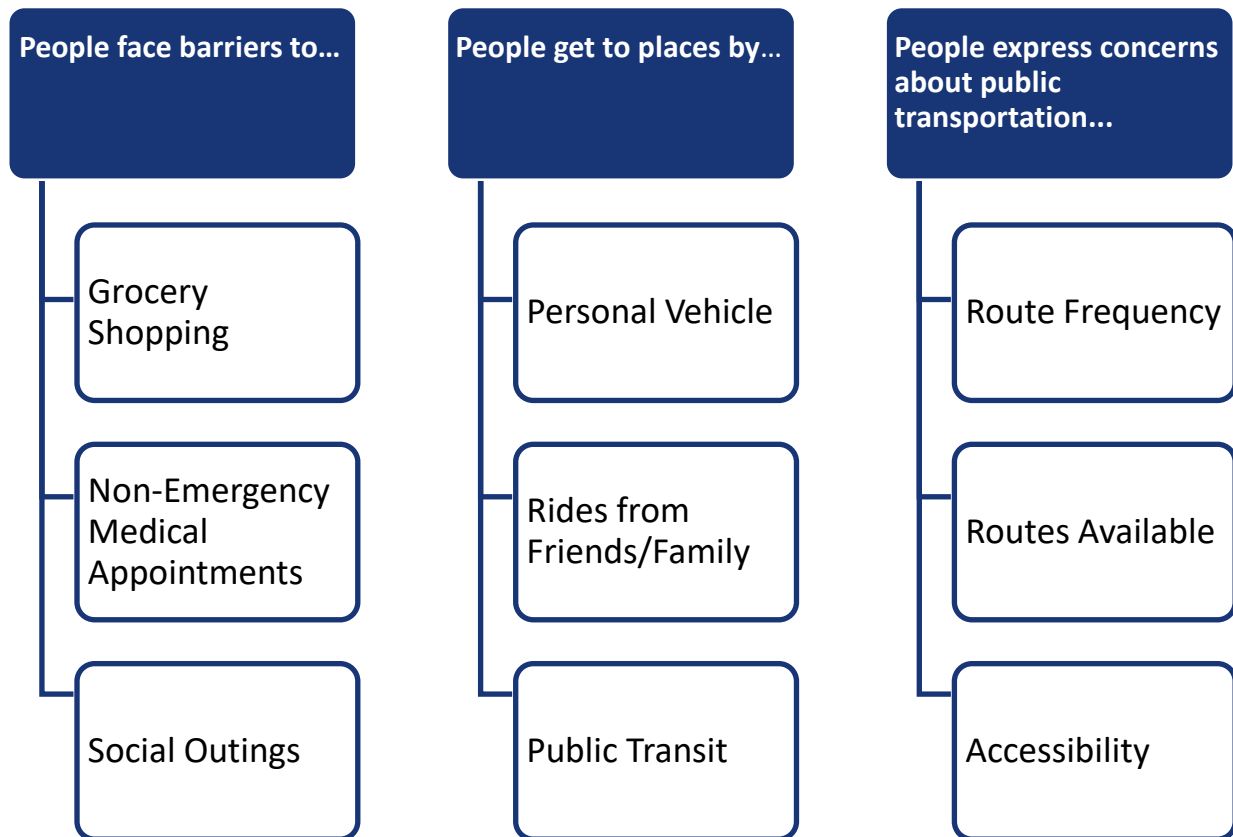
This section summarizes emergent themes from outreach and engagement across all these reports and activities during the 13-month period from October 1, 2017 to October 31, 2018. The purpose of this section is to answer the question “What did we learn from outreach and engagement activities?” within two categories: (1) “What did we learn about transportation?” and (2) “What did we learn about outreach and engagement?” The first section addresses the information gathered from the public and transportation providers. The second section focuses on the lessons learned from the outreach process.



## What Did We Learn about Transportation?

Based on input gleaned from a combination of high-touch and high-tech public outreach and engagement, several themes emerged and are summarized in Figure 41. Discussion of these themes is provided below.

Figure 41: Key Transportation Themes

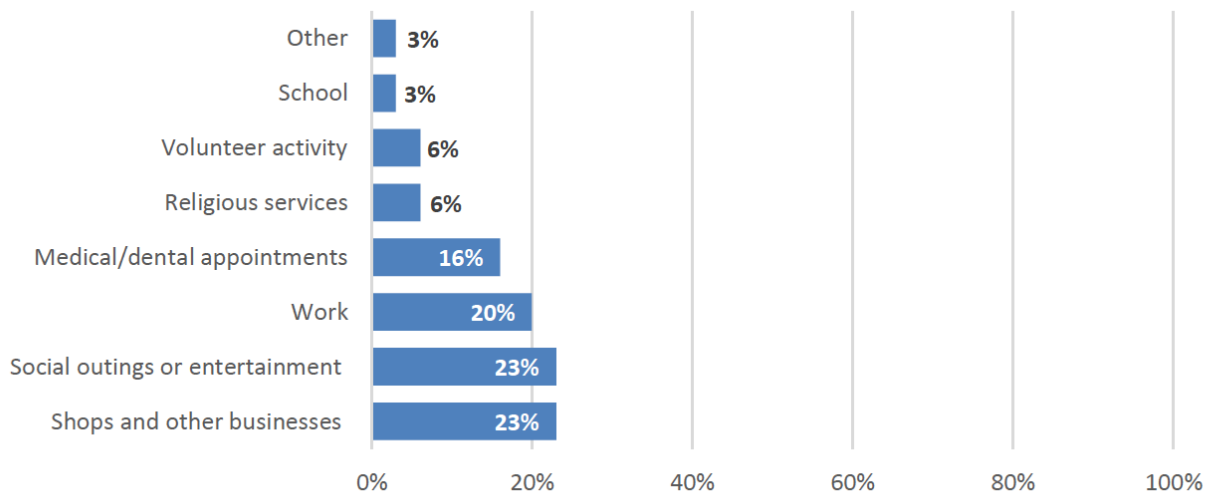


### Transportation Needs

In order to understand travel and transportation needs, it is critical to understand where people want and need to go. Furthermore, the question of where people are able to travel—and where they are not able to travel—is a critical part of identifying and dismantling transportation barriers. Although presented on different time spans between fall 2017 and spring 2018, the Delaware Transportation Needs Assessment Survey (that sought input from all Delawareans), Snapshot Survey (that targeted Delaware senior center members), and Section 5310 Transportation Provider Survey (that obtained input from human-services agencies providing transportation services to people with disabilities and older adults) all indicated that lack of transportation options posed challenges for people of all ages and income levels.

Three-fourths of Delaware Transportation Needs Assessment survey respondents indicated that they were unable to travel in the past six months due to lack of transportation. Nearly half of respondents indicated that they had stayed home at some point in the past six months because they did not have access to convenient transportation. Surprisingly, analysis of responses related to income levels revealed that people from all income levels have stayed home at least one to two times in the past six months due to the lack of convenient travel options. As shown in Figure 42, respondents who indicated that they stayed home because of few transportation options cited missed trips for (1) shops and other businesses, (2) social outings or entertainment, (3) work, and (4) medical/dental appointments.

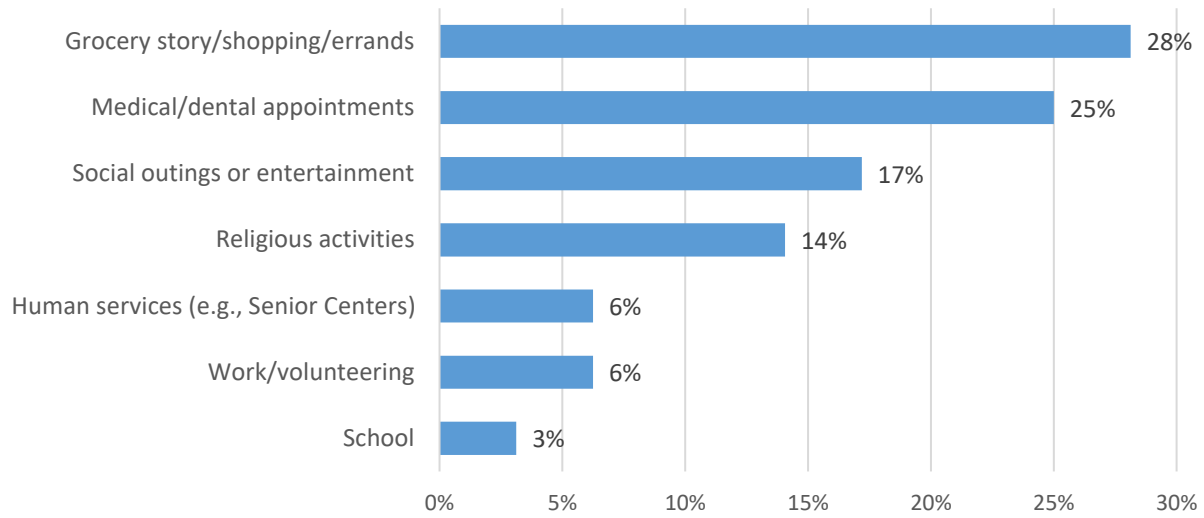
**Figure 42: Destinations That Respondents Were Unable to Travel to in the Last Six Months Due to Lack of Convenient Transportation, (n = 311)**



A Snapshot Survey question captured responses from Delaware senior center members on a similar question, “During the past three months were you, or the person(s) you support, unable to travel to any of the following destinations due to lack of transportation?” Figure 43 illustrates issues with getting to destinations due to lack of transportation. The highest percentages involved being unable to travel to grocery store/shopping/errands (28%), medical/dental appointments (25%), and social outings or entertainment (17%).

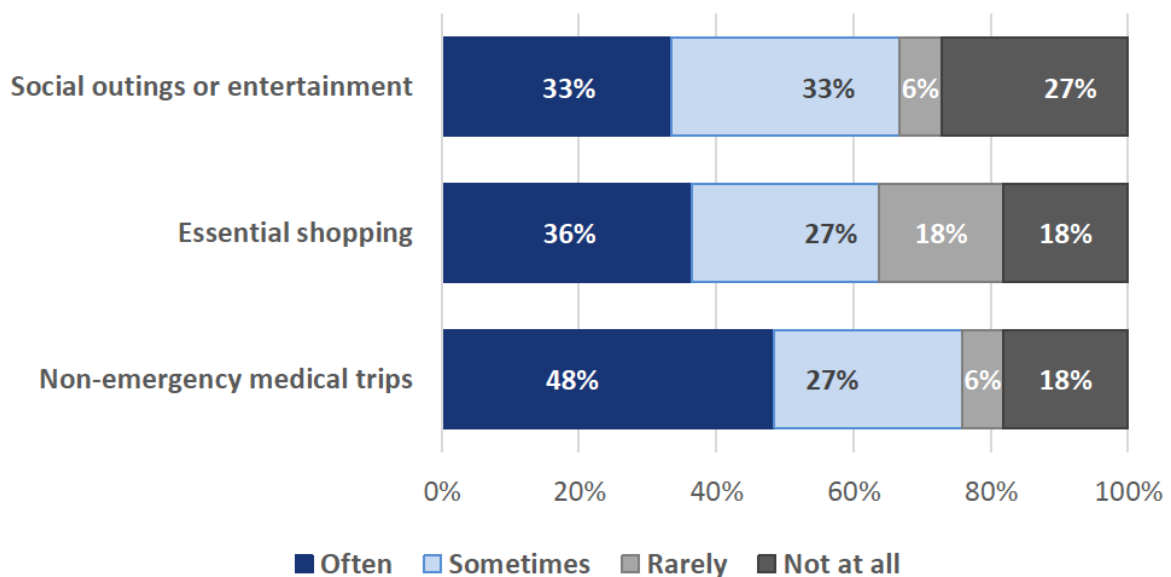


**Figure 43: Barriers to Travel Destinations of Snapshot Survey Respondents (n = 64)**



A Section 5310 transportation provider survey also asked a similar question regarding their clients’/members’ inability to travel to destinations due to lack of transportation. Survey participants were asked, “How often do your members communicate difficulty traveling for the following purposes?” As shown in Figure 44, respondents indicated that their clients/members most often communicate difficulties traveling to non-emergency medical trips (48%), essential shopping (37%), and social outings or entertainment (33%). These responses mirror responses of Delaware senior center members.

**Figure 44: Top Travel Difficulties, As Communicated by Section 5310 Survey Respondents (n = 33)**



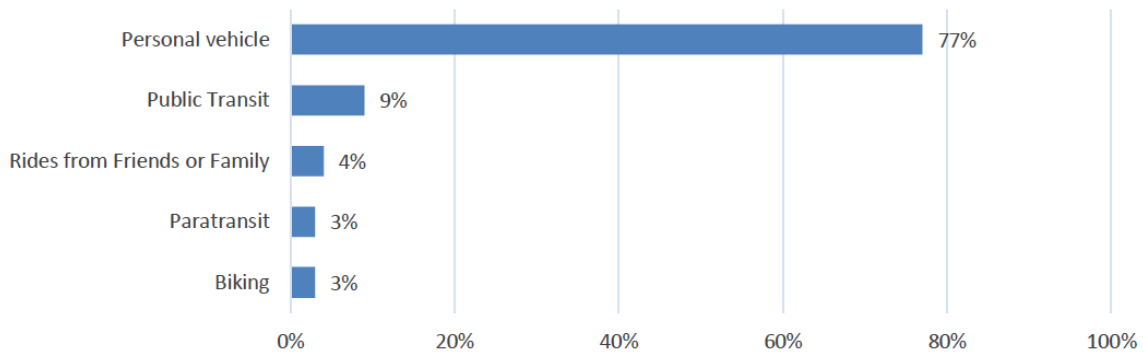
In all survey instances, people indicated difficulty in accessing shopping, social outings, and medical/dental appointments. Each surveyed a different segment of the population. Other answers were provided as well, but they may be specific to the groups or subgroups captured by each individual survey. These three areas emerge as themes, having appeared as prominent answers on all of the survey instruments.

### Transportation Activities

In understanding where people want and need to go, the second question emerges: How are they getting there? Although presented on different time spans between fall 2017 and spring 2018, the Delaware Transportation Needs Assessment Survey (that sought input from all Delawareans), Snapshot Survey (that targeted Delaware senior center members), and Section 5310 Transportation Provider Survey (that obtained input from human-services agencies providing transportation services to people with disabilities and older adults) all indicated that a majority of Delawareans, of all ages and abilities, rely on personal vehicles as a primary mode of transportation.

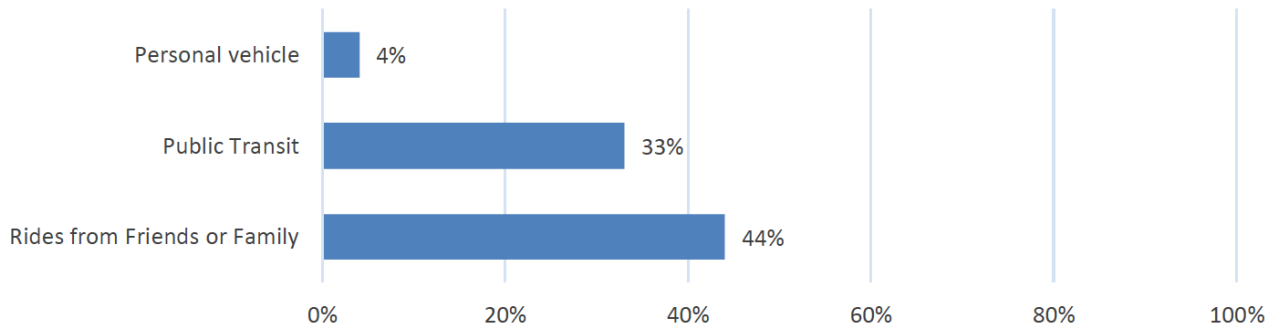
The Delaware Transportation Needs Assessment Survey asked respondents, “What is your primary means of transportation?” As displayed in Figure 45, over three-fourths (77%) of the 737 respondents reported personal vehicle, followed by public transit (9%), rides from family and friends (4%), paratransit (3%), and biking (3%).

**Figure 45: Primary Means of Transportation for Delaware Transportation Needs Assessment Survey Respondents (n = 737)**



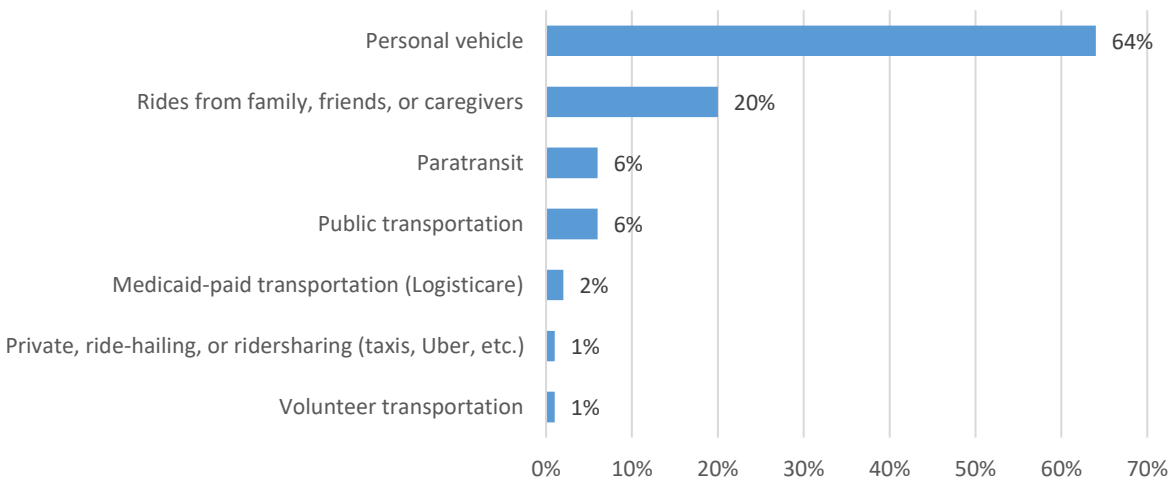
When the question response was analyzed by annual income, a different reality for survey respondents with annual incomes of \$25,000 (\$25K) or less was revealed. Figure 46 shows that the majority of low-income respondents (44%) rely on rides from others, use public transit (33%), or drive personal vehicles (4%) as their primary means of transportation.

**Figure 46: Primary Means of Transportation for Delaware Transportation Needs Assessment Survey Respondents with Annual Incomes of Less Than \$25K (n= 58)**



The Snapshot Survey activities, conducted at Delaware senior centers, captured input from older adult members. Figure 47 shows that the primary means of transportation reported for senior center members or person(s) they support is overwhelmingly a personal vehicle (64%), which was followed by rides from family, friends, and coworkers (20%), public transportation (6%), and paratransit (6%).

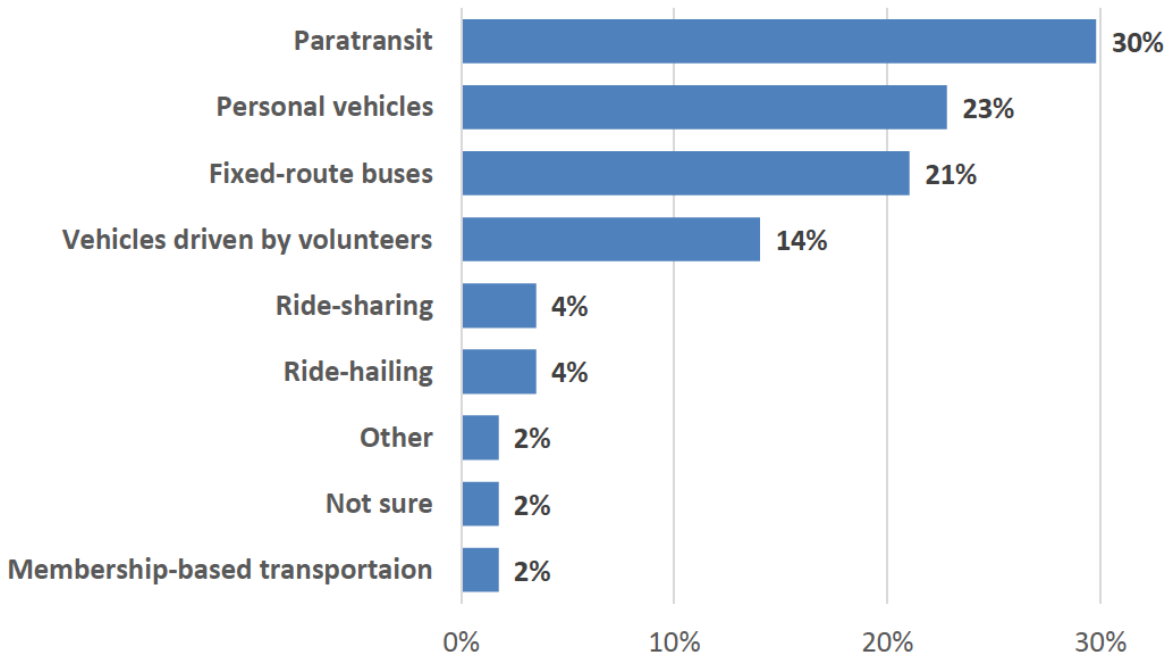
**Figure 47: Snapshot Survey Responses to “What is the primary means of transportation for you or the person(s) you support?” (n = 64)**



The Section 5310 Transportation Provider Survey also asked a similar question about the transportation activity of their clients/members. In response to the question, “In addition to transportation services you provide or coordinate, do members/clients utilize other transportation services?” 52 percent of respondents replied yes, 30 percent replied no, and 18 percent were unsure. Survey respondents were asked to “Check other transportation services

utilized on a routine basis by members.” As illustrated in Figure 48, 30 percent of respondents indicated that paratransit was the top transportation service utilized on a routine basis by members, which was followed by personal vehicles (23%) and fixed-route buses (21%).

**Figure 48: Other Transportation Services Used by Members/Clients of Section 5310 Transportation Providers (n = 33)**



While the use of personal vehicle is reported as the primary form of transportation, it is clear that transportation-disadvantaged individuals rely on other transportation modes and services. Nearly one-half of individuals who report being low income also indicate that they rely on rides from others (with one-third indicating that they use public transit). One-third of Section 5310 agency members/clients also qualify to use paratransit services. Also, it was noted that a much larger portion of Snapshot Survey respondents, or senior center members, report relying on rides from family and friends than respondents to the Delaware Transportation Needs Assessment survey. Snapshot Survey results indicate reported barriers to using public transportation including the locations and accessibility of bus stops, busy streets to cross, bags or packages to carry, weather-related issues, and safety concerns.

### Perceived Public Transit Issues

While taking the Delaware Transportation Needs Assessment Survey, respondents were given the opportunity to share free-response answers to the question, “What changes would you like to see regarding bus services in Delaware?” Responses were coded into eight primary

categories. A total of 199 people responded to the question.

- **Increased Route Frequency:** Responses included issues related to increasing the frequency of routes and service, either by day or hour. For example, requests for expanded Sunday routes or increased frequency of a specific category were put into this group.
- **New or Expanded Service Suggestions:** Responses that were sorted into this category included requests for new routes, the suggestions to expand current routes to reach areas not served by public transit, or to decrease first- and last-mile accessibility barriers to transit stops/hubs. For example, requests for service to rural areas that are not on a current route were sorted into this category.
- **None/Or Not Applicable:** Not all respondents gave suggestions. Some respondents simply responded “none” or that they do not use public transportation.
- **Better Accessibility:** Responses requesting greater accessibility of transit services were sorted into this category. For example, responses expressing concern about wheelchair ramps or inaccessibility of bus stops were sorted into this category.
- **Better Implementation:** Responses related to implementation of transit services were sorted into this category. For example, concerns about DART First State or the inability of bus drivers to make cash payment change were included in this category.
- **Other:** The category of “other” includes complaints in categories with fewer than five responses. For example, only two responses mentioned bus fees and one response mentioned environmental concerns, so these responses were sorted into this category.
- **Better Technology:** Responses requesting technology improvements were sorted into this category. For example, several requests included better real-time data and WiFi on buses.
- **On-Time Transit:** Responses regarding concerns about the timeliness of transit, particularly among buses, were included here. Concerns about late buses and bus transfers are examples.

The most common responses focused on issues of route frequency, current service, and route offerings. Other issues that were expressed as concerns included accessibility, implementation, technology issues, and on-time transit services. Table 1 demonstrates the frequency of each of these responses.

**Table 1: Frequency of Delaware Transportation Needs Assessment Survey Responses to Changes Regarding Bus Services in Delaware (n = 199)**

	<b>Number</b>	<b>Percent*</b>
<b>Increased Route Frequency</b>	65	33%
<b>New or Expanded Service Suggestions</b>	64	32%
<b>None/Not Applicable</b>	22	11%
<b>Better Accessibility</b>	13	7%
<b>Better Implementation</b>	12	6%
<b>Other</b>	10	5%
<b>Better Technology</b>	7	3%
<b>On-Time Transit</b>	6	3%
<b>Total</b>	199	100%

\*Percentages have been rounded to the nearest whole number.

Similarly, the Snapshot Survey gave respondents the option to choose their top three options (from a provided list) that they believe should be prioritized. Results are shown in Table 2.

**Table 2: Frequency of Snapshot Survey Responses to: “What three options should be prioritized to improve mobility and transportation in Delaware?” (n = 64)**

	<b>Frequency</b>	<b>Percent*</b>
<b>Better coordination of all transportation services</b>	53	18%
<b>Bus service improvements</b>	52	18%
<b>Transit fare subsidies</b>	47	16%
<b>More information on available transportation options</b>	47	
<b>Non-emergency medical transportation</b>	35	12%
<b>Improvements to sidewalks and bus stop amenities</b>	34	12%
<b>Ride vouchers or subsidies for private, ride-hailing, or ridesharing (taxis, Uber...)</b>	29	10%
<b>Travel training for public transit</b>	21	7%
<b>Transit trip-planning technology (websites or apps)</b>	16	5%
<b>Expansion of carpooling or ridesharing programs</b>	6	2%
<b>Total</b>	293	100%

\*Percentages have been rounded to the nearest whole number.

Delaware Transportation Needs Assessment Survey responses were provided in a free-response format and then categorized. Snapshot survey participants were given preset categories from

which to choose. Despite this difference, there are clear themes that emerge across both surveys.

Several responses from both surveys coincide. For example, primary issues revealed in both surveys relate to bus services, frequency, and coordination. Similarly, the physical state of bus stops was highlighted in the response analyses of both surveys. Both surveys point to the need for (1) improved first- and last-mile connectivity and/or accessibility and (2) use of new information and scheduling technologies to support mobility access for all. According to the National Aging and Disability Transportation Center (NADTC), transportation information and assistance includes varied approaches that may be adopted to respond to ride requests and answer questions about transportation options. These include:

- One-Call/One-Click Transportation Resource Centers
- Mobility Management
- Aging and Disability Resource Centers
- Area Agency on Aging (AAA) or Center for Independent Living (CIL) Information and Referral/Assistance Programs
- 2-1-1

There are two interesting differences between the survey answers. The first is the mention of fare amounts. While “transit fare subsidies” and “ride vouchers or subsidies for private ride-hailing or ridesharing (taxi, Uber....) was chosen quite frequently by Snapshot Survey respondents, fewer than five respondents mentioned cost or price in their Delaware Needs Assessment Survey responses. A second difference between the survey responses involves information gathered about the introduction of new services, like non-emergency medical transportation, travel training for public transit, and expansion of carpooling or ridesharing programs. Delaware Transportation Needs Assessment Survey respondents provided more critique of existing structures and services versus information on new services.

## **Key Takeaways from the Outreach and Engagement Process**

### **Profile of Respondents**

Identifying the profile of the survey respondents provides two advantages: (1) understanding to whom the survey outcomes are most applicable and (2) identifying the groups that were not adequately engaged by outreach activities. Self-reported demographics from all three surveys are provided below.

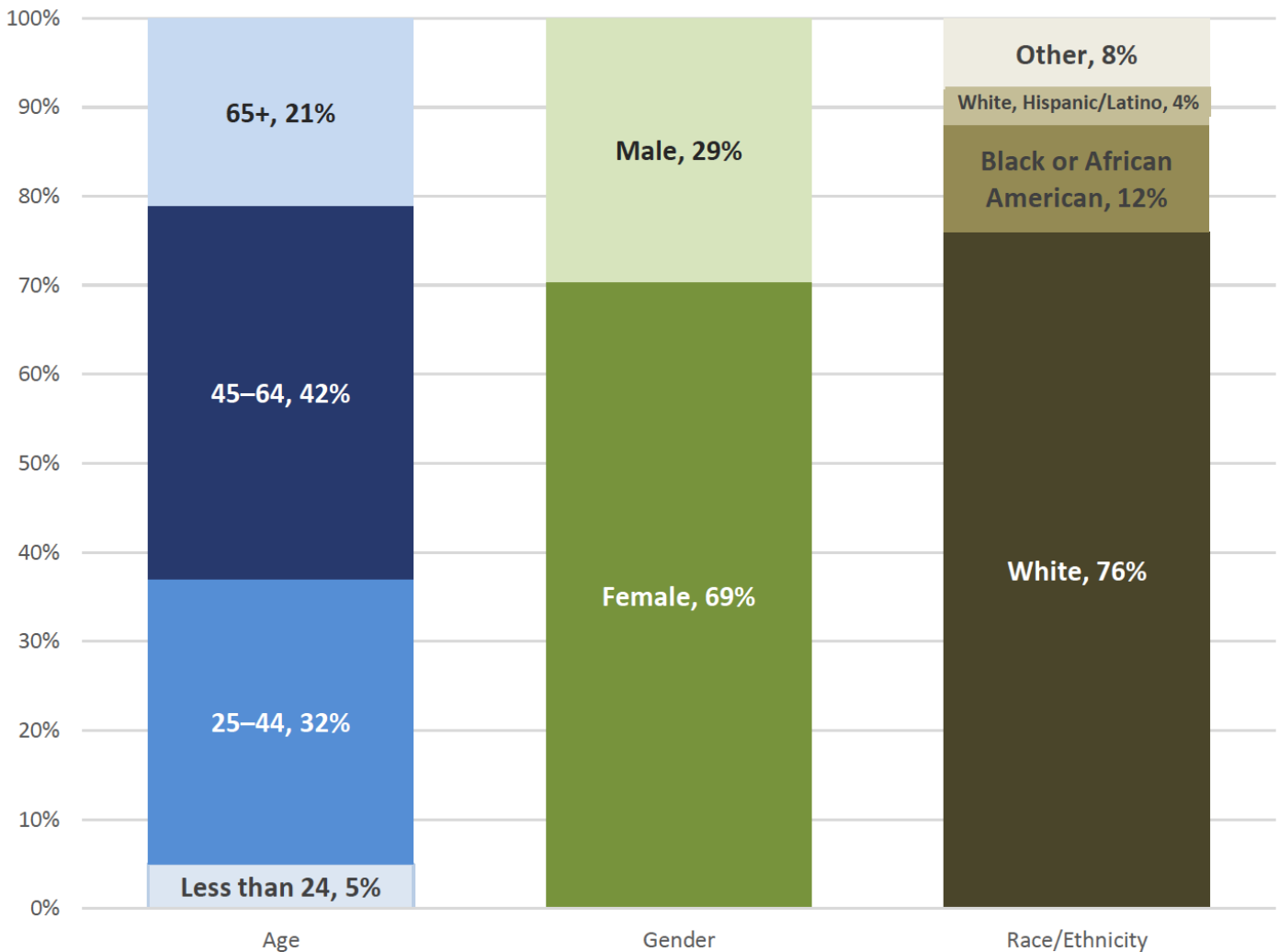
The age distribution of Delaware Transportation Needs Assessment survey respondents is shown in the Figure 49. Adults between the ages of 45 and 64 represent the majority of



respondents (45%), while young adults under the age of 24 are under-represented. More women responded than men. Most respondents (76%) reported being white. The next largest groups that were represented were Black or African American (12%) and white Hispanic/Latino (4%). The remaining eight percent of respondents reported in other groups that individually contributed less than four percent each.

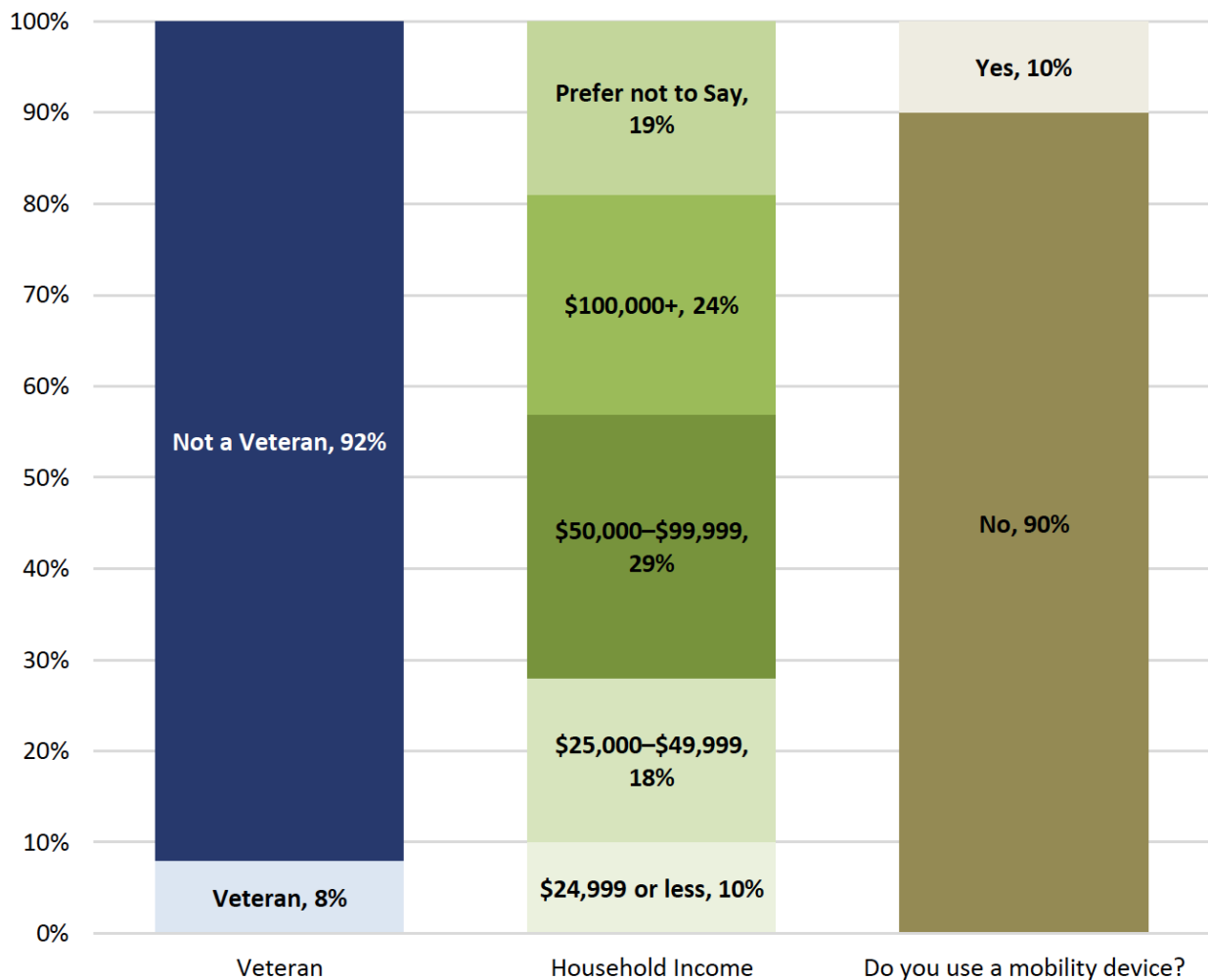
Survey responses tended to be overrepresented in participation by white, English-speaking women. Despite the development and dissemination of English and Spanish versions and targeted outreach to Delaware’s Spanish-speaking individuals, there were no recorded responses to the Spanish survey.

**Figure 49: Demographics of Delaware Transportation Needs Assessment Survey Respondents (n = 578)**



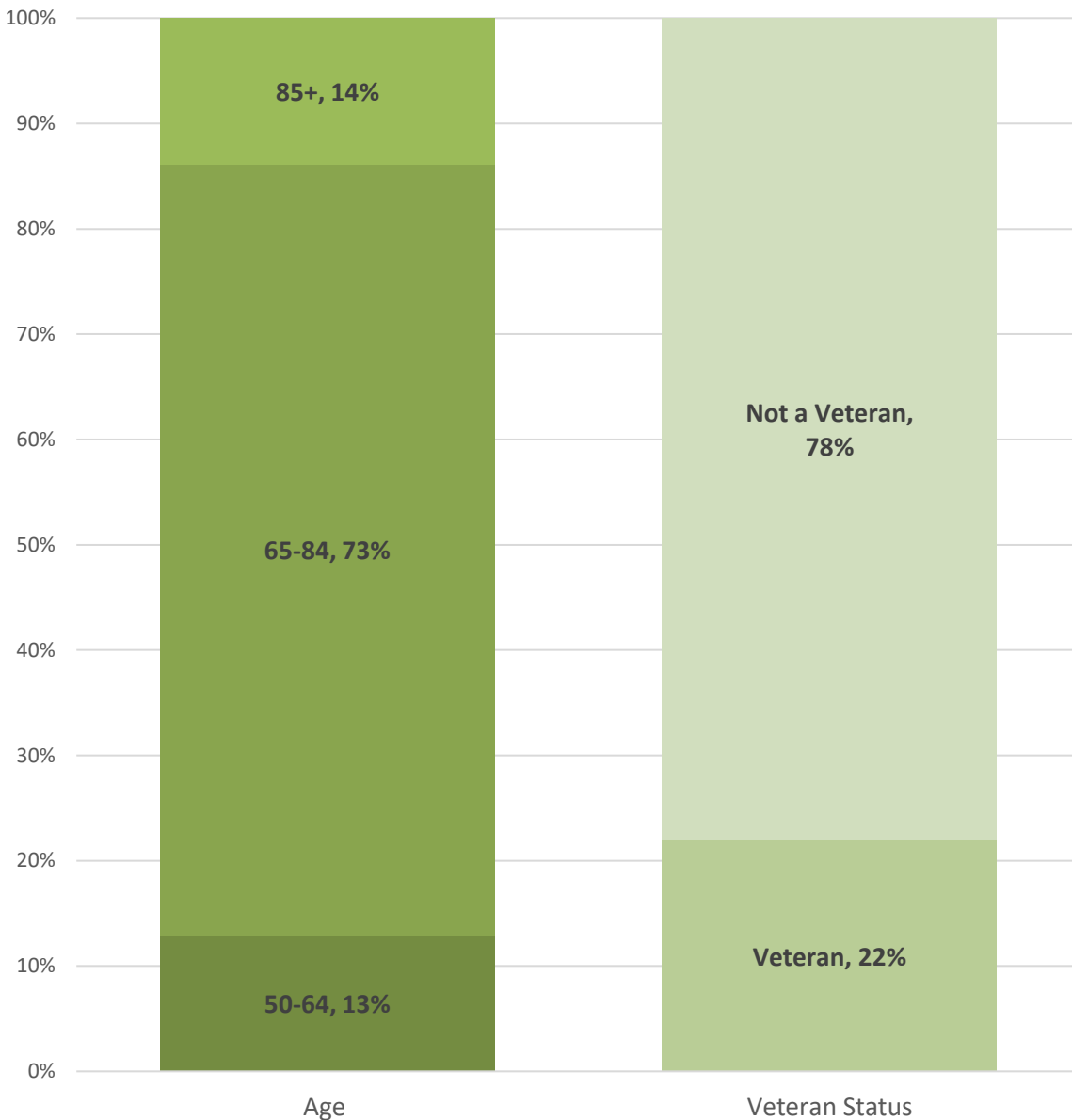
As shown in Figure 50, eight percent of respondents identified as a veteran, which mirrors the state’s overall percentage of veterans. Of the 578 respondents who provided annual income-related responses, 19 percent indicated that they preferred not to report household income. Of the remaining 81 percent of respondents who chose to report household income, the category with the highest response rate was \$50,000–\$99,999 (29%), which was followed by \$100,000+ (24%) and \$25,000–\$49,999 (18%). The category with the lowest response rate was household incomes of less than \$24,999 (10%).

**Figure 50: Profile of Delaware Transportation Needs Assessment Survey Respondents (n = 578)**



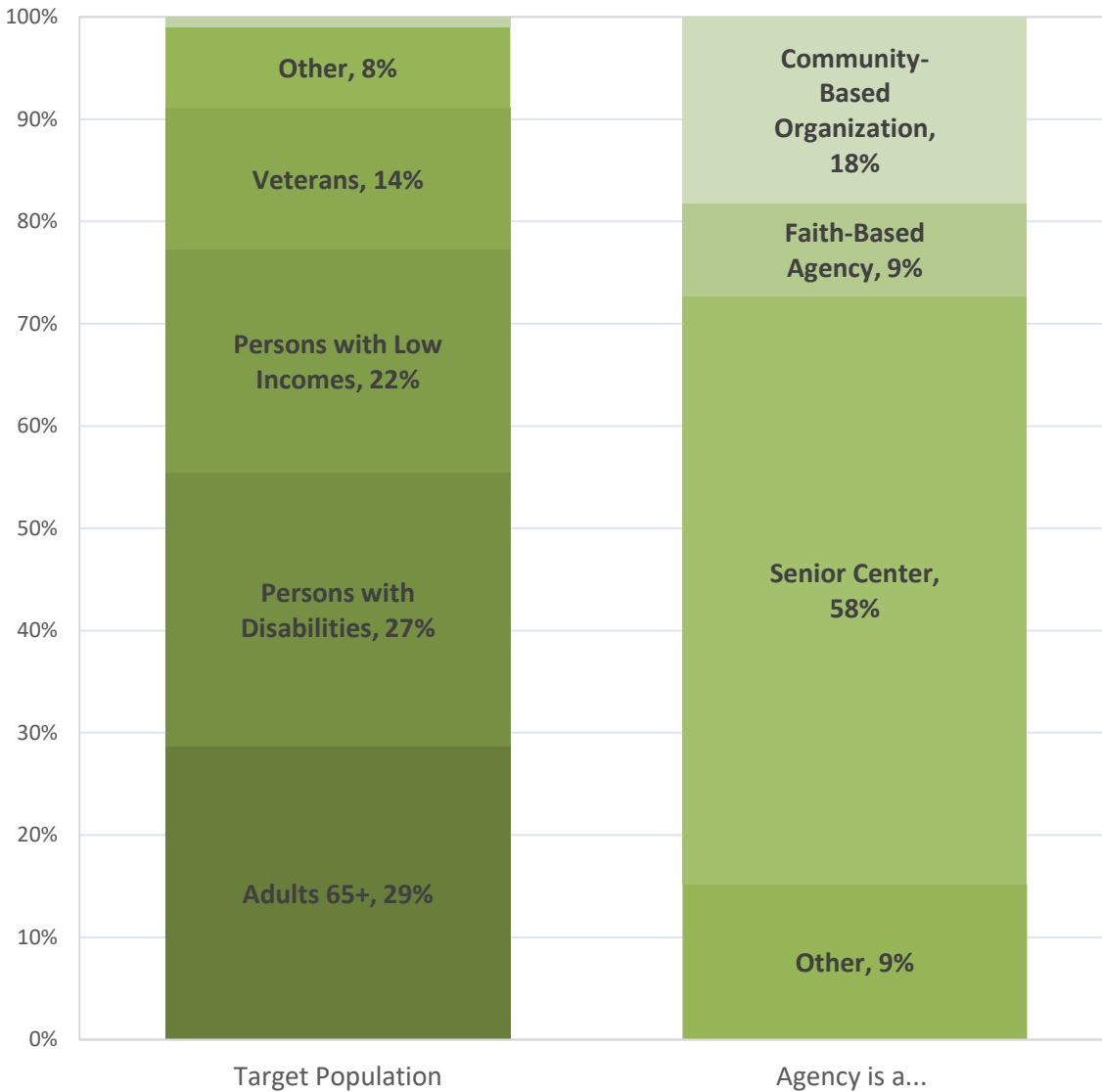
Since the Snapshot Surveys were designed for in-person engagement at either senior centers or events hosted at senior centers, most participants were over the age of 50. Figure 51 indicates that most respondents (73%) were between the ages of 65 and 84. Approximately an equal number of people were between ages 50–64 (13%) and over age 85 (14%). Veterans were fairly well represented with 22 percent of respondents identifying as veterans.

**Figure 51: Demographics of Snapshot Survey Respondents (n = 64)**



Section 5310 specialized transportation providers qualify for funding by serving two primary transportation-disadvantaged communities: older adults and persons with disabilities. As shown in Figure 52, the target communities served by the service providers queried in the Section 5310 Transportation Provider Survey are as follows: adults 65+ (29%), persons with disabilities (27%), persons with low incomes (22%), veterans (14%), and all other groups (8%). Many of these groups are co-applicable to each person in that a senior center member may be an older adult with a disability who is a veteran living on a fixed income. Most of the agencies are senior centers (58%), followed by community-based organization (CBO) (18%), other (15%), and faith-based agency (9%).

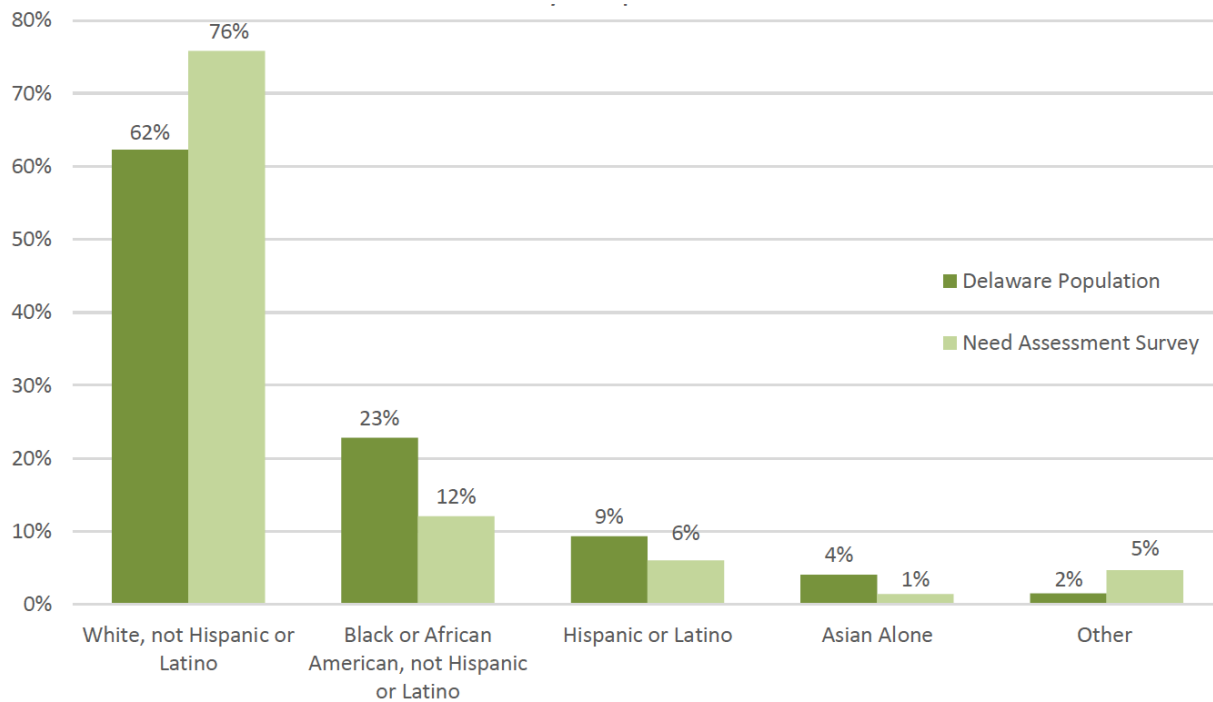
**Figure 52: Section 5310 Transportation Provider Member and Agency Profiles (n = 33)**



### Who is Missing?

The only survey that collected race and ethnicity demographic information was the Delaware Transportation Needs Assessment Survey. For the question asking, “What is the primary language spoken in your household?,” 99 percent of 577 respondents reported that English is their primary language. While a Spanish version of the survey was designed, there were no responses to that survey version. As shown in Figure 53, the group of white, Non-Hispanic individuals, is overrepresented in the sample. Simultaneously, all other groups are underrepresented.

**Figure 53: Gap in Delaware Transportation Needs Assessment Survey Responses by Race/Ethnicity to Delaware Population (n = 577)**



Source: The Delaware Population Consortium

### People who Speak a Language Other than English at Home

While outreach was targeted to Latino populations in Delaware, there were no responses to the Spanish version. Low survey response rates among Latino communities appears to be a national trend. Moreover, only 21 individuals who identified as white Hispanic/Latino and 14 individuals who identified as Black Hispanic/Latino responded to the English version of the survey. This represents about .05 percent of the total 765 survey respondents. Similarly, the Snapshot Survey activity was exclusively conducted in English. None of the questions on the Section 5310 Survey addressed language barriers. However, 12.8 percent of Delaware’s population speaks a language other than English at home (U.S. Census 2018). This is a population that may not have been captured by the outreach and engagement activities due to limited resources.

A 2015 study by the Pew Research Center documents challenges associated with surveying the Hispanic population. It cites studies indicating that Hispanics are less likely to participate in surveys due a “general suspicion of government,” “a more specific fear of deportation,” difficulties “translat[ing] a survey question exactly to capture meaning and nuance,” and cultural differences affecting Hispanics’ survey responses (Brown, 2015).

### Non-Transit Users

A high number of survey respondents were not regular transit users. For example, 92 percent of Delaware Transportation Needs Assessment Survey respondents reported that they do not use public transit as a primary form of transportation. People who are not relying on public transit do provide valuable information. However, this information is only a piece of the transportation landscape.

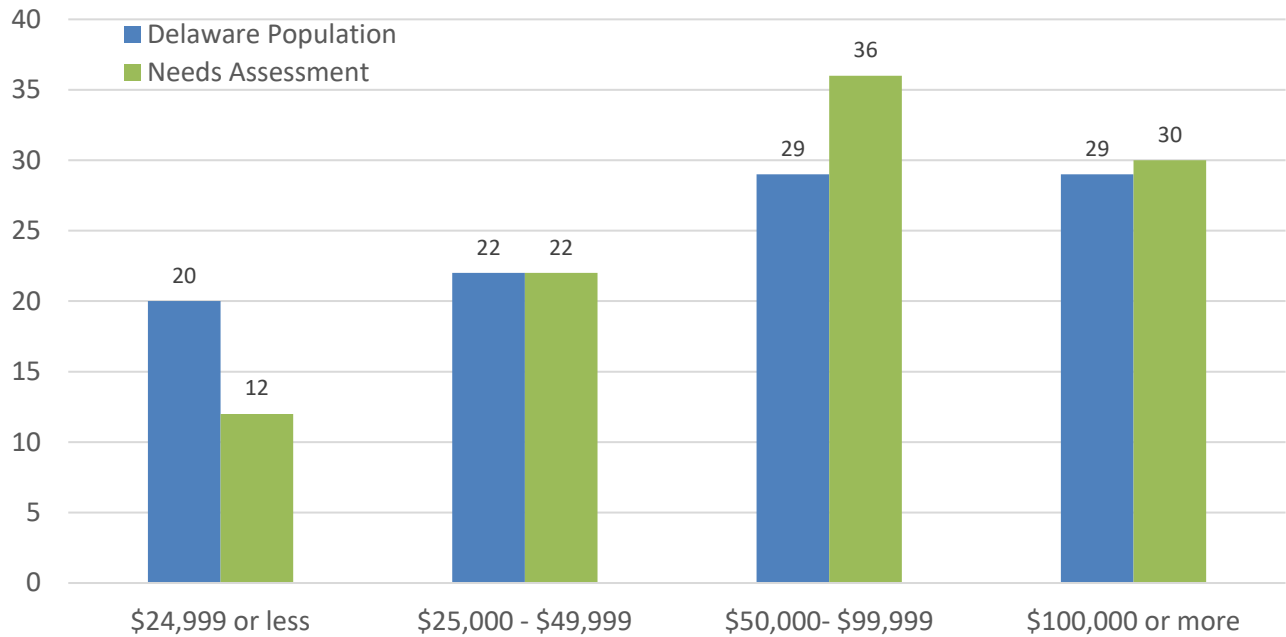
### Information Not Collected

The demographic profile of people accessed by some forms of outreach were not able to be collected. While respondents for all survey activities provided demographic information, other outreach techniques did not collect demographic information. Therefore, it is difficult to assess the extent to which groups were accessed through some of the electronic outreach, such as the online first- and last-mile crowdsourcing tools and information posted online. Additionally, more sensitive demographic information addressing issues like housing status, medical status, and employment was not collected by the survey. It is impossible to determine some factors, such as the number of survey respondents who were experiencing housing insecurity.

### Low-Income Groups

As this survey indicates, the average household incomes of Delaware Transportation Needs Assessment Survey respondents match the demographics of Delaware fairly well. People with a household income of less than \$25,000 are slightly underrepresented by the Delaware Transportation Needs Assessment Survey, while people in the highest two income categories are slightly overrepresented. Figure 54 demonstrates a comparison between the income of Delawareans as a population and respondents of the Delaware Needs Assessment Survey who chose to report income.

**Figure 54: Income Comparison of Delaware Residents and Delaware Transportation Needs Assessment Survey Respondents (n = 577)**



Source: Bureau of Labor Statistics and United States Census, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement

### Other Groups

The survey methodologies for the Delaware Transportation Needs Assessment Survey, Snapshot Survey, and Section 5310 Transportation Provider Survey are in some way exclusive to populations that may benefit from better access to transit. Both the Section 5310 Transportation Provider and Delaware Transportation Needs Assessment Surveys were hosted electronically. This decision was made with consideration for the size of the outreach and engagement team, timeline for analysis, and difficulties in interpreting written responses. The survey was accessible using smart mobile phones, tablets, and other handheld wireless computers. The 2016 American Community Survey shows that certain demographic groups (Black and Hispanic households, for example) were more likely than both white and Asian households to report owning only a handheld device to access the Internet (Ryan, 2018). Yet, the electronic surveys may have acted as barrier to people without access to Internet or ability to navigate digital devices. To account for some of this challenge, mobile devices were provided at outreach events with assistance provided, if Internet service was available. However, people who learned about the survey through a flyer, for example, may have been unable to follow through with taking the survey.

A barrier for the Snapshot and Section 5310 Transportation Provider surveys, is that they only captured information from people already engaged by a community organization. Snapshot

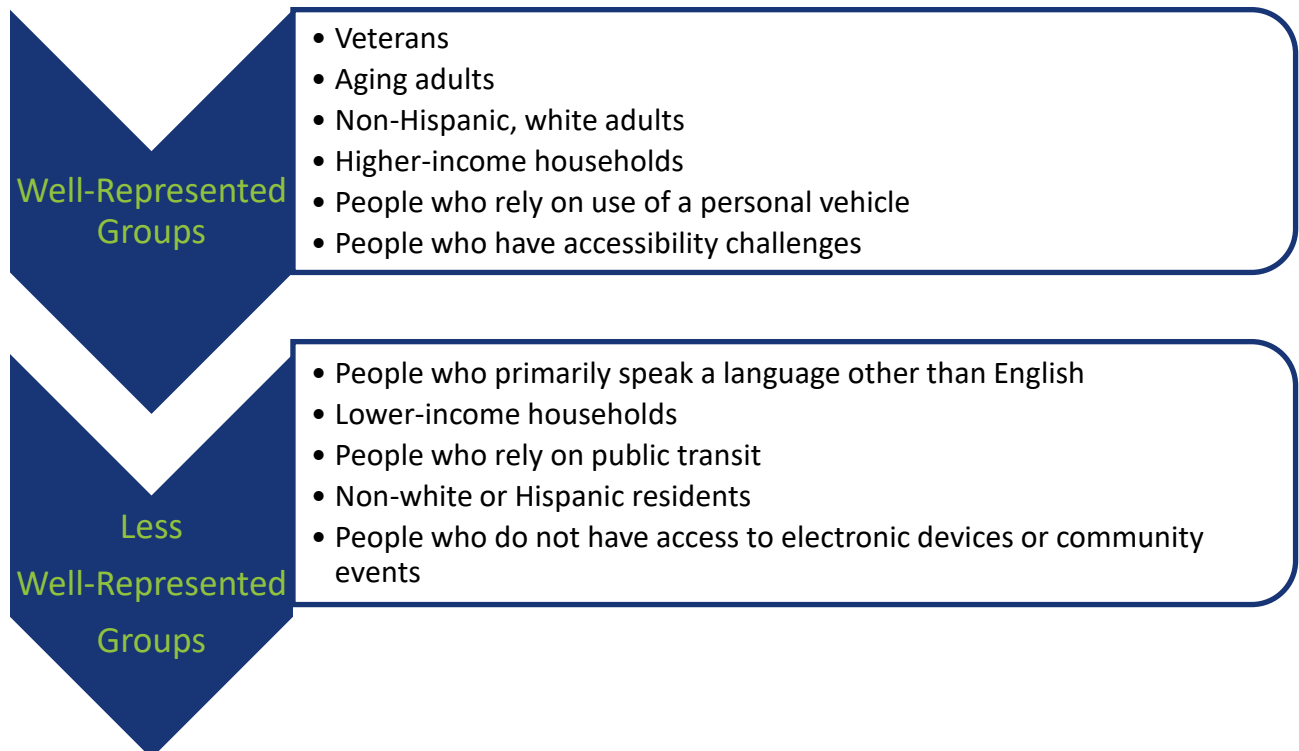


Survey activity respondents are members of Delaware senior centers or participants at events targeted to older adults. Section 5310 Transportation Provider Survey respondents answered on behalf of the clients they currently serve. Although these methods provided ways to access people in vulnerable populations, individuals who need more transit options but are not members of a senior center or clients of a Section 5310 transportation provider may not have been fully included.

### Themes Throughout

Overall, some populations were easier to connect with than others. Ultimately, the outreach and engagement activities attempted to engage as many Delaware stakeholder organizations and individuals as possible. Information was captured from a variety of people across the state about numerous transportation and mobility issues facing Delaware residents. Themes derived provide a foundation for additional outreach and longer-term strategic efforts. Additional outreach and engagement occurred through the formation of a *Mobility in Motion* Technical Advisory Committee (TAC), which comprised members from transportation service providers, human-services agencies, community-based organizations, transportation planning organizations, and councils/committees representing transportation-disadvantaged individuals. Information about the work of this group is discussed further in the following sections.

**Figure 55: Groups Represented through *Mobility in Motion* Outreach and Engagement**



## VIII. Mobility Needs and Gaps

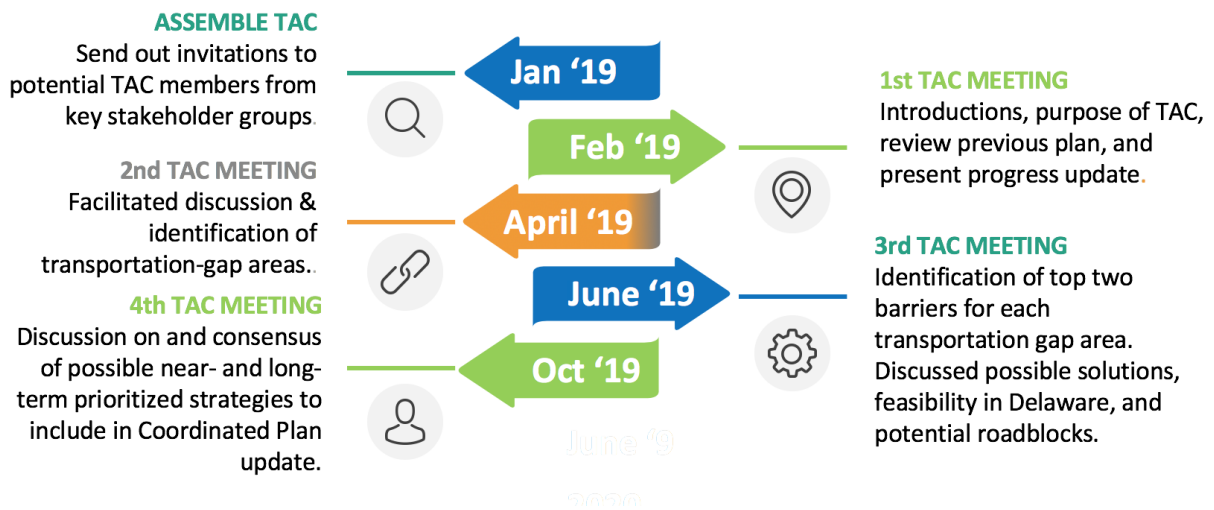
### Methodology

The previous section of this plan summarizes outreach and engagement outcomes, including results of the Delaware Transportation Needs Assessment Survey, Snapshot Survey, and Section 5310 Transportation Provider Survey conducted in 2018. Highlights include:

- Individuals across the state experience barriers to places of primary need/interest, including grocery shopping trips, non-emergency medical appointments, and social outings.
- The primary methods of getting to and from places of interest/need include personal vehicle, rides from friends/family, and public transit.
- Key concerns related to public transportation in Delaware include route frequency, availability of routes, and accessibility.

To supplement data gathered as a result of the outreach and engagement activities, individuals were invited by DTC to serve on a *Mobility in Motion* Technical Advisory Committee (TAC) beginning in January 2019. Approximately 12–15 individuals representing a number of statewide organizations attended the four TAC meetings scheduled in 2019. The TAC met four times in 2019: February 13, April 10, June 12, and October 16. The meeting schedule and objectives are illustrated in Figure 56.

**Figure 56: *Mobility in Motion* TAC Meeting Schedule**



TAC members were informed that the Coordinated Plan was (1) being developed through a participatory planning process, (2) will serve as a strategic framework for addressing the state’s existing and future mobility needs, and (3) will also align with the new federal framework

focused on the need to enhance mobility for all transportation-disadvantaged populations (e.g., older adults, persons with disabilities, veterans, low-income individuals, non-drivers, and no-car households) by leveraging resources and partnerships to better coordinate public transit and human-services transportation. TAC members were charged with evaluating mobility needs and gaps in Delaware and developing prioritized strategies to:

- Promote innovative coordinated access and mobility for all.
- Increase partnerships for improved coordination.
- Address mobility barriers for transportation-disadvantaged individuals and all Delawareans.
- Expand multimodal transportation solutions.
- Increase travel options through the utilization of evolving technical advancements.

During the initial February 13 meeting of the *Mobility in Motion* Technical Advisory Committee (TAC), IPA presented the highlighted outcomes of previous phases of work, including outcomes of high-touch and high-tech engagement in 2018. This information was critical in the TAC’s later work activities and was used to help the committee further define the state’s mobility needs and gaps. A summary of the February TAC meeting is provided in Appendix J.

Prior to the April 10 TAC meeting, members were asked to respond to the question “Based on your organization’s knowledge and/or experiences serving transportation-disadvantaged populations in Delaware, what is your sense of the transportation gaps and barriers?” on a Google form. This question was designed to prompt the April 10 TAC meeting that included a facilitated discussion and interactive flip chart exercise on transportation gaps and barriers in Delaware. The following transportation gap areas were defined and categorized: spatial gaps, temporal gaps, system and operation gaps, infrastructure gaps, and educational/awareness Gaps. Each TAC member was given ten minutes to individually process and brainstorm new perspectives on each transportation gap area that differed from their own Google form responses.

During the April 10 meeting, members were invited to individually review perspectives that differed from their own and then collectively discuss new or amended considerations. Specific barriers were also discussed, listed, and ranked for each of the six gap areas as follows.

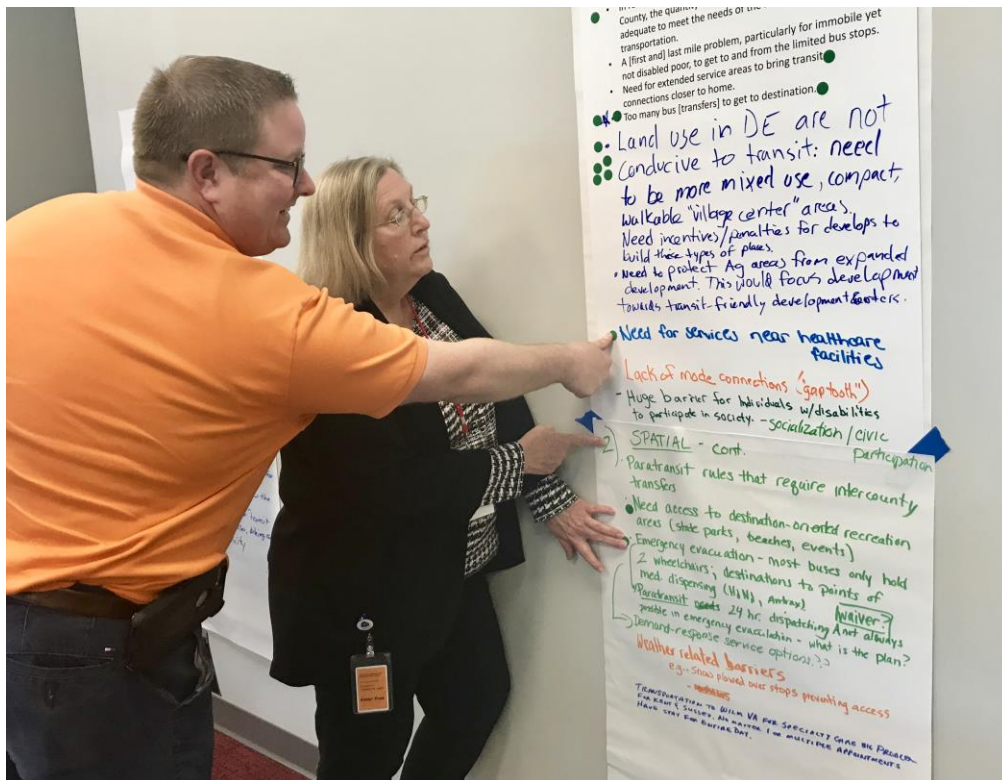
<b>Spatial Gaps:</b>	
<b># Votes</b>	<b>Identified Gaps/Barriers</b>
5	Land use in Delaware is not conducive to transit – need more mixed-use, compact, walkable areas (and incentives to build these types of places)
3	Lack of mode connections/too many bus transfers to get to destinations
1	Rural areas (western Kent and Sussex) have greater issues accessing transportation
1	Need for extended service areas to bring transit connections closer to home
1	In rural communities, the quantity and diversity of bus routes are not adequate to meet the needs of the rural poor without transportation
1	Need for services close to healthcare facilities
1	Need access to destination-oriented recreation areas (e.g., state parks, beaches, events)
1	Emergency evacuation – need for demand-response service options
<b>Temporal Gaps:</b>	
<b># Votes</b>	<b>Identified Gaps/Barriers</b>
4	More frequent transit service trips to add convenience
3	Need for loop on major roads
2	Schedules do not meet the needs of ridership
1	Need for expanded service hours for late-shift workers
1	Paratransit arrival window may not enable riders to get to doctor/health appointments or jobs on time
1	Paratransit scheduled arrival/pick-up windows are not dependable
1	Gap with families that may have kids with mobility devices who need to be evacuated during emergencies
<b>System and Operation Gaps:</b>	
<b># Votes</b>	<b>Identified Gaps/Barriers</b>
3	Need for accessible rideshare services (e.g., Uber and Lyft)
3	Need for high-occupancy vehicle (HOV) or bus lane (a restricted traffic lane reserved for HOVs) to reduce traffic
1	LogistiCare (Medicaid transport) is not always reliable
1	Cost at \$4 to \$5 each way is prohibitive (for patients in need of medical transportation)

1	Drivers’ lack of awareness of disabilities
1	Multiple transfers are necessary when crossing counties and service areas
1	Multiple modes may be necessary to help with scheduling
1	Low-income population is not eligible for paratransit
1	Addressing customer-service needs for families with young and/or special needs kids. What are we missing? Why don’t we see more families riding transit?
<b>Infrastructure Gaps:</b>	
<b># Votes</b>	<b>Identified Gaps/Barriers</b>
3	Need better coordination and planning for new development – need more walkable areas with interconnected sidewalk networks/pathways and destinations
3	Need local government regulations (e.g., zoning) and policies to incentivize transit- and pedestrian-friendly development
2	Lack of pedestrian-friendly sidewalks, crosswalks, and infrastructure leading to/from transit stops and hubs (i.e., first- and last-mile accessibility)
2	ADA Title II entities (state and local government) have not conducted self-assessments or developed transition plans to address non-compliant pedestrian facilities (e.g., sidewalks, curb ramps, bus stops, pedestrian push buttons, crosswalks)
1	Lack of well-lit transportation stops
1	New stops in Wilmington are inaccessible to elderly and people with disabilities
1	Private property owners and developers do not want on-site bus stops and services. Issues include concerns with liability concerns, which prevents owners from signing memorandums of agreements (MOAs or legal agreements that enable buses to stop in certain locations).
1	Lack of fixed-route bus shelters and amenities (e.g., dispersed stops in Wilmington that lack basic amenities and provide poor access)
<b>Educational/Awareness Gaps:</b>	
<b># Votes</b>	<b>Identified Gaps/Barriers</b>
7	Confusing and complicated bus schedule/lack of accessible materials in transit centers
3	One source of coordination for transit options (one-click/one-call travel information portal/trip planning system) instead of multiple websites visits to plan one trip
1	How are paratransit services communicating during Delaware “state of emergencies”?
1	High schools should teach “transit system” as part of Driver’s Education

1	DART app needs more publicity
<b>Other Gaps:</b>	
<b># Votes</b>	<b>Identified Gaps/Barriers</b>
2	Local land-use codes should provide transit access within developments

These discussions and new information were presented and prioritized according to level of importance. TAC committee developed an additional barrier/gap area: regulatory gaps. A photo of the facilitated “dot” exercise is pictured in Figure 57. A summary of the April 10 TAC meeting is provided in Appendix K.

**Figure 57: TAC Meeting 2 Facilitated Exercise**



As part of the June 12 TAC meeting, a “Mobility Best Practices Matrix” was used to describe some of the best mobility practices in Delaware and around the country (see Appendix B). A “Best Practices: Icons Key” provided the names of symbols used in the “Mobility Best Practices Matrix,” to assist in identifying policy goals met by each suggested practice. Posters for each of the six gap areas—that defined the gap area and related barriers—were displayed around the room. The primary barriers were selected through two means. A summary of the June 12 TAC meeting and outcomes of the interactive exercise are provided in Appendix L. The following

section describes and defines each of the six areas and highlights the related barrier(s) identified by the TAC for each area. This information was used by the TAC to link identified best-practice strategies for addressing Delaware’s most relevant transportation and mobility gaps.

## **Needs and Gaps by Category**

### **Infrastructure Gaps**

Infrastructure gaps are defined as when people are not able to fully utilize transportation services because if the infrastructure is too difficult to navigate, especially if they have special mobility or transportation needs. Infrastructure gaps are caused by limitations of the built environment. A lack of physical or technological infrastructure can prevent people from accessing needed transportation options.

#### **Primary Infrastructure Gaps Identified by TAC**

- Limited physical accessibility of transportation options for people with disabilities.
- First- and last-mile transit connectivity.

### **Regulatory Gaps**

Regulatory gaps are defined as when there is a disconnect between land-use plans or other local government plans and the policies that have been or will be implemented related to mobility and transportation needs.

#### **Primary Regulatory Gaps Identified by TAC**

- Disconnect between land-use plans and policies, which is how the gap is defined.
- Need to plan for transit-friendly communities.

### **Temporal Gaps**

Temporal gaps are defined as when there is a lack of transportation services offered during the times in which people need them. This is even more impactful for those with special mobility or transportation needs.

#### **Primary Regulatory Gaps Identified by TAC**

- Need for more frequent transit service trips to add convenience.
- Poorly coordinated connections among forms of transportation.

## Systems and Operations Gaps

System and operations gaps are caused by the systemic barriers that people face using *existing* transportation options. These gaps occur when people are unable to access transportation services due to operational policies. Additionally, system and operations gaps are when people have trouble navigating transportation options because if services are not coordinated across the entire public transportation network.

### Primary Systems and Operations Gaps Identified by TAC

- Need for ADA-accessible vehicles within private Transportation Network Company (i.e., TNC or “rideshare” services, such as Uber and Lyft).
- Better coordination between transportation services, especially route connections.

## Spatial Gaps

People experience spatial gaps when they are unable to use transportation services due to the locations of provided services. Spatial gaps occur in locations that are not served by transportation services or are served minimally.

### Primary Spatial Gaps Identified by TAC

- Issues with travel to shops, medical/dental appointments, and social outings.
- Expanded services across counties and to rural areas.

## Educational/Awareness Gaps

Learning how to access and utilize transportation options can be challenging for individuals who are unfamiliar with all of the transportation programs and services. Gaps in awareness occur when individual riders and social service agencies are not fully informed of available transportation options. While awareness gaps can take many forms, they often stem from a lack of information (despite DTC’s radio ads, extensive information made available on its website, marketing outreach, and a robust social media presence).

### Primary Educational/Awareness Gaps Identified by TAC

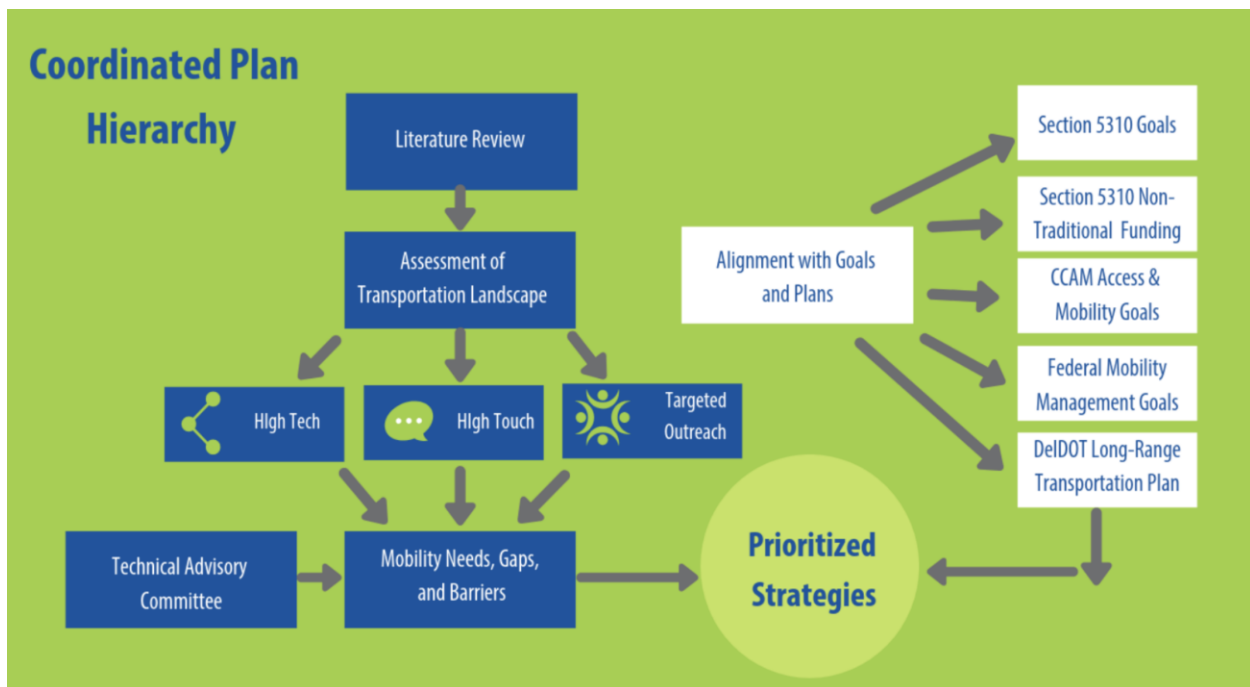
- Confusing and complicated bus schedules.
- Lack of print and electronic educational materials on how to access and utilize transportation services in DART First State transit centers and online.



## IX. Strategies to Address Mobility Needs and Gaps

The goals and prioritized strategies within the Coordinated Plan are a culmination of the past five years of best-practices research, extensive outreach and engagement, and facilitated TAC work. Together, this comprehensive research collectively considers and promotes innovative customer-focused mobility management practices that address Delaware’s transportation-disadvantaged individuals and other current and potential transit users and identifies opportunities to provide well-synchronized and coordinated mobility services across the state. The primary criteria used to develop these priorities involve alignment with Section 5310 for both traditional and non-traditional funding, equal accessibility, advancing federal mobility management goals, and alignment with the DelDOT’s Long Range Transportation Plan, *Innovation in Motion*. The graphic in Figure 58 provides a comprehensive overview of the strategic prioritization process.

**Figure 58: Strategic Prioritization Process**



### Goals

Based on this process, the guiding principles or goals of developing the updated Coordinated Plan aim to:

- Promote innovative coordinated access and mobility.
- Involve partnerships and increase coordination.
- Address mobility gaps and barriers.

- Expand transportation solutions for all transportation-disadvantaged individuals.
- Secure capital or operational funding on an annual basis to address the above shortcomings.

### **Prioritization Methodology**

Aligned with these goals, six strategy categories were presented to the *Mobility in Motion* TAC during the October 2019 meeting. These categories are as follows:

- Consider the use of transportation technologies to provide on-demand and updated information to customers and gain information about current ridership.
- Advance mobility management practices via community-based partnerships/programs.
- Seek and obtain funding to support an on-demand specialized transportation/expanded or “premium-level” paratransit service pilot program.
- Identify improvements to current mobility infrastructure.
- Develop a stronger marketing campaign that promotes current or expanded education and awareness programs designed to train and support designated populations in Delaware.
- Enhance the integration of land-use planning and transit in Delaware.
- Build stronger and coordinated partnerships among state, county, and local agencies.
- Elevate a better understanding of the needs of transportation providers and the need to collaborate (rather than work independently).

For each category, approximately five strategies were developed and discussed in detail. Through interactive facilitation by IPA staff, participants were asked to vote on whether the identified strategies should be considered in the near- or long-term or not as a priority. A detailed synopsis of the prioritization voting is provided in Table 3.

**Table 3: Prioritized Strategy Considerations of DTC’s Technical Advisory Committee**

POSSIBLE PRIORITIZED STRATEGIES 2020 DELAWARE COORDINATED PUBLIC TRANSIT–HUMAN-SERVICES TRANSPORTATION PLAN				
Strategy/Category	Near-Term Priority (by 2025)	Long-Term Priority (by 2030)	Not a Priority	Total Priority Votes
<b>Transportation Technology</b>				
Develop a one-click (web-based)/one-call travel information portal/trip-planning system to serve as a “one-stop shop” resource to make travel arrangements via fixed-route, public demand-response, and specialized transportation providers.	9	2	0	11
Develop “smart mobility hubs,” complete with interactive kiosks to provide unified sources of transportation information at transit hub locations (e.g., Central Ohio TA).	4	7	0	11
Educate on a mobile crowdsourcing platform that encourages transit riders to share information about service delays and disruptions.	8	1	3	9
Consider hosting a hackathon to gather ideas and proposals for improving Delaware’s bus network.	4	3	3	7
<b>Advance Mobility Management Practices via Community-Based Partnerships/Programs</b>				
Expand/incentivize partnerships between DART First State and specialized transportation providers that provide transportation to nonprofits and health care providers (e.g., CHEER’s partnership with Easter Seals and La Red Health Care)	14	0	0	14
Pilot expansion of DART First State’s FLEX program into New Castle and Kent Counties. <b>Note:</b> Pilot expansion has already met the needs in Sussex County.	10	3	0	13

Strategy/Category	Near-Term Priority (by 2025)	Long-Term Priority (by 2030)	Not a Priority	Total Priority Votes
Provide Section 5310 funding, on a competitive basis, to nonprofit organizations, state or local governments, public-transit operators, and/or Transportation Network Companies (TNCs) for innovative, partnership-driven programs or projects that use state-of-the-art technology, integrate transit and Mobility on Demand solutions, and/or enhance mobility management for transportation-disadvantaged populations.	11	1	0	12
Incentivize and foster community-based partnerships/programs to enhance the customer experience by providing equitable, accessible, and traveler-centric services.	10	1	0	11
Diversify and expand funding sources for local partnerships (e.g., health organizations, specialized transportation providers, community-based organizations, and veterans service organizations) that collaboratively develop and support solutions to increase access and augment transportation to health care services.	8	3	0	11
Support partnerships among health care providers, community partners, and advocates to manage non-emergency medical transportation via a transportation broker (e.g., Roundtrip). The web-based portal/transportation solution coordinates and books rides for medical appointments via health care coordinators.	6	4	0	10
<b>On-Demand Specialized Transportation/Paratransit</b>				
Fund a pilot program to provide enhanced, on-demand travel solutions for paratransit customers using a web-based portal and mobile platform (e.g., RoundTrip). Through a single platform, paratransit riders can submit request via phone, website, or request assistance from a care coordinator for a same-day, on-	14	0	0	14

Strategy/Category	Near-Term Priority (by 2025)	Long-Term Priority (by 2030)	Not a Priority	Total Priority Votes
demand ride. <b>Note:</b> Enhanced, premium paratransit option.				
Fund a pilot or demonstration project to provide on-demand information, real-time data, and predictive analysis to optimize transit transportation choices for transportation-disadvantaged populations.	3	1	0	4
<b>Mobility Infrastructure</b>				
Establish and maintain a “barrier-free” bus stop environment that complies with ADA, recognizes Universal Design standards, provides wayfinding signage, and ensures safe crosswalks and walkways. <b>Note:</b> Municipalities need technical/funding assistance to prepare ADA self-assessment and transition plans.	15	0	0	15
Promote DART First State transit riders’ use of Wikimap platform to capture and evaluate crowdsourcing of first- and last-mile transit accessibility issues.	13	1	0	14
Conduct a statewide transportation justice analysis, similar to WILMAPCO’s, to identify and address inequities experienced by transportation-disadvantaged populations and change transportation prioritization processes to correct chronic underfunding.	12	1	0	13
In cooperation with Delaware local governments, bridge gaps in the built environment to improve network accessibility, conduct a statewide inventory, and identify the need across the state for ADA sidewalks, curb cuts, crosswalk signals, other built-environment improvements.	8	5	0	13
Provide technical assistance and funding support to municipalities to prepare ADA self-assessments and transition plans that address first- and last-mile accessibility to bus stops and transit hubs. <b>Note:</b> Required regardless of money and support.	11	1	0	12

Strategy/Category	Near-Term Priority (by 2025)	Long-Term Priority (by 2030)	Not a Priority	Total Priority Votes
Develop a program to assess the need for enhanced amenities at bus stops (e.g., shelters, benches, lighting, enhanced signage) commensurate with the number of potential riders.	3	5	1	8
<b>Education and Awareness</b>				
Promote existing short video series that describes how to ride DART First State public transit.	12	0	0	12
Educate public and charter school students how to use DART First State transit in schools and as part of the driver’s education curriculum.	10	0	0	10
Develop a pilot program with transit mobile app and training resources that assist riders with intellectual or developmental disabilities (e.g., Moovit). The pilot program could include in-class instruction to teach safety and transit skills and one-on-one field training to learn how to ride a particular transit route.	9	1	0	10
Promote a customer-friendly travel training program, information referral, and assistant services to educate people with special transportation needs on available mobility options and how to ride them to meet their mobility needs.	8	0	0	8
<b>Enhance the Integration of Land-Use Planning and Transit in Delaware</b>				
Incentivize and support local governments planning for mixed-use and transit-oriented communities (e.g., Downtown Development District program, Opportunity Zones, Complete Communities Enterprise Districts) and incorporate transit-supportive elements in the regulatory framework. Require plans for development/redevelopment for multimodal transportation connectivity and complete streets.	11	0	0	11

Strategy/Category	Near-Term Priority (by 2025)	Long-Term Priority (by 2030)	Not a Priority	Total Priority Votes
Foster development of ADA-accessible, aging-friendly, and transit-friendly inclusive communities (e.g., planning for age-restricted communities located within transit corridors/buffers).	8	3	0	11
Conduct geospatial analysis to determine “demand-drivers” for paratransit including development of age-restricted retirement communities in remote areas, locations of community-based services relative to transit locations, and the evolution of seasonal manufactured home communities to year-round destinations.	0	10	0	10
Advance the need to plan for more dense, mixed land uses, public transit, and complete streets that will support the needs of Transportation Justice (TJ) communities.	7	2	0	9

## **Prioritized Strategies Identified by the TAC**

Through this prioritization process, and as detailed in the October 2019 TAC meeting summary (Appendix M), the following strategies were selected by the TAC (in order of importance) as the primary near- and long-term priorities.

### **Strategies identified as the primary “near-term priorities (by 2025)” include:**

- Establishing a “barrier-free” bus stop environment that complies with ADA, universal design standards, wayfinding signage, and ensures safe crosswalks and walkways.
- Expanding partnerships between DART and specialized transportation providers that provide transportation to nonprofits and health care providers.
- Funding a pilot program to provide enhanced on-demand travel solutions to paratransit customers using a web-based portal and mobile platform.
- Promoting DART’s transit riders’ use of WikiMap platform to capture and evaluate crowdsourcing of first- and last-mile transit accessibility issues.
- Promoting existing video series that describes how to ride DART First State public transit.

### **Strategies identified as the primary “long-term priorities (by 2030)” include:**

- Conducting a geospatial analysis to determine “demand-drivers” for paratransit including development of age-restricted retirement communities in remote areas, locations of community-based services relative to transit locations, and the evolution of seasonal manufactured home communities to year-round destinations.
- Developing “smart mobility hubs,” complete with interactive kiosks to provide unified sources of transportation information at transit hub locations (e.g., Central Ohio TA).
- Cooperating with Delaware local governments to bridge gaps in the built environment to improve network accessibility, conduct a statewide inventory, and identify the need statewide for ADA sidewalks, curb cuts, crosswalk signals, and other built-environment improvements.
- Developing a program to assess the need for enhanced amenities at bus stops (e.g., shelter, benches, lighting, enhanced signage).
- Supporting partnerships among health care providers, community partners, and advocates to manage non-emergency medical transportation via a transportation broker (e.g., Roundtrip). The web-based portal/transportation solution coordinates and books rides for medical appointments with health care coordinators.



**Strategies identified as “not a priority” include:**

- Considering hosting a hackathon to gather ideas and proposals for improving Delaware’s bus network.
- Educating on a mobile crowdsourcing platform that encourages transit riders to share information about service delays and disruptions.

**Implementation Plan Focus Areas**

Using the identified TAC priorities, in addition to all research and work conducted over the past three to five years, DTC leaders developed a list of prioritized strategies to be considered in conjunction with its existing service delivery systems and operations, federal funding framework, and long-term planning initiatives. The following strategies and recommendations are considered top priorities for DTC over the next five years and beyond.

**DTC Strategies to Address Mobility Gaps**

1. Funding a pilot program to provide enhanced on-demand travel solutions to paratransit customers using a web-based portal and/or mobile platform.
2. Promoting walkable, bikeable, and accessible bus stops that comply with ADA and National Association of City Transportation Officials (NACTO) guidelines to improve pedestrian/bicycle infrastructure and wayfinding signage.
3. Continuing to expand partnerships between DTC and specialized transportation providers that provide transportation to nonprofits and health care providers.
4. Developing and deploying new technology, tools, and measures that identify transportation and transit accessibility barriers.
5. Elevating—from a statewide policy perspective—the need to assess demand drivers for paratransit services based on land-use, transportation, and housing plans.
6. Developing a one-click (web-based)/one-call and/or smart mobility hubs to serve as travel information portal/trip-planning systems. The “one-stop shop” resource would facilitate streamlined travel via fixed-route transit, public demand-response transit services, and specialized transportation providers.
7. Advancing strategies, in cooperation with Delaware local governments, to bridge gaps in the built environment and improve transportation network accessibility and connectivity.
8. Coordinating with DeIDOT and municipal officials to build/rebuild the pedestrian infrastructure to address safety and shortcomings.

## X. Conclusion and Path Forward

### *Emergent Themes*

Based on input gleaned from a combination of high-touch and high-tech public outreach and engagement, the following themes emerged:

**Transportation Barriers** – A lack of transportation options poses challenges for people of all ages and income levels in Delaware. Three-fourths of Delaware Transportation Needs Assessment survey respondents indicated that were unable to travel in the past six months due to lack of transportation. Nearly half of respondents indicated that they had stayed home at some point in the past six months because they did not have access to convenient transportation. Respondents indicated experiencing barriers to visiting grocery store/shopping/errands, non-emergency medical/dental appointments, and social outings.

**Transportation Modes** – In Delaware, travel by car is the dominant means of transportation for most people. However, nearly one-half of individuals reporting to be low income indicate that they rely on rides from others, and one-third take public transit. A large portion of older adult respondents reported that they rely on rides from family and friends. Regardless of age or income, survey respondents indicated that very important factors in deciding whether to take the bus are (1) feeling safe and comfortable riding public transit, (2) finding information, and (3) having first- and last-mile transit connectivity. Older adults report concerns with crossing busy streets, carrying bags or packages, and weather-related issues.

**Public Transit Issues** – Input received on public transit issues related mostly to route frequency, current services, and route offerings. Other concerns that were captured involved accessibility, implementation, technology issues, and on-time transit services. Survey responses point to the need for (1) improved first- and last-mile connectivity and/or accessibility and (2) use of new information and scheduling technologies to support mobility access for all.

### *Outreach and Engagement Challenges*

Despite the development of an outreach and engagement plan and a 13-month implementation period, there were challenges reaching and obtaining input from the following populations in Delaware:

- People who primarily speak a language other than English.
- Lower-income households.
- People who rely on public transit.

- Non-white or Hispanic residents.
- People who do not have access to electronic devices or community events.

## Identified Gaps and Strategies

Though transportation needs vary among population cohorts in Delaware, access to important destinations is one of the primary needs reported by individuals during the outreach phases. Many people who rely on specialized transportation require access to the same destinations required by those who do not use specialized transportation, including access to jobs, medical facilities, educational/job training centers, and key destinations of daily living (e.g., grocery stores, shops, pharmacies).

Six transportation gaps, which affect the provision of specialized transportation services in Delaware, were identified and categorized: spatial gaps, temporal gaps, system and operation gaps, infrastructure gaps, regulatory gaps, and educational/awareness gaps. To address transportation gaps and mobility barriers, the following primary priorities emerged:

- **Transportation Technology** – Develop a one-click (web-based)/one-call travel information portal/trip planning system to serve as a “one-stop shop” resource to make travel arrangements via fixed-route, public demand-response, and specialized transportation providers.
- **Advance Mobility Management Practices via Community-Based Partnerships/Programs** – Expand/incentivize partnerships between DART First State and specialized transportation providers providing transportation to nonprofits and health care providers (e.g., CHEER’s partnership with Easter Seals and La Red Health Care)
- **On-Demand Specialized Transportation/Paratransit** – Fund a pilot program to provide enhanced, on-demand travel solutions for paratransit customers using a web-based portal and mobile platform (e.g., RoundTrip). Through a single platform, paratransit riders can submit trip requests via phone, website, or assistance from a care coordinator for a same-day, on-demand ride.
- **Mobility Infrastructure** – Establish and maintain a “barrier-free” bus stop environment that complies with ADA, recognizes Universal Design standards, provides wayfinding signage, ensures safe crosswalks, and unobstructed walkways/bikeways.
- **Education and Awareness** – Promote existing short video series that describes how to ride DART First State public transit.
- **Enhance the Integration of Land-Use Planning and Transit in Delaware** – Incentivize and support local governments planning for mixed-use and transit-oriented communities (e.g., Downtown Development District program, Opportunity Zones, Complete Communities Enterprise Districts, Transportation Improvement Districts, and

Master Planning) and incorporate transit-supportive elements in the regulatory framework. Require plans for development/redevelopment for multimodal transportation connectivity and complete streets.

## **Alignment with DTC’s Strategic Planning Process and Innovation Initiatives**

DTC’s 2020–2025 Strategic Plan will guide the agency’s mobility investments and vision for the next five years across the state. Each of the Plan’s six goals describes an action-oriented outcome that aims to reduce existing barriers to reliable transportation and support increased mobility for residents, employees and visitors. These goals align with the *Coordinated Public Transit – Human-Services Plan for Delaware* and should be supported and advanced as part of the Coordinated Plan’s outreach and dissemination.

- 1) Advancing Mobility as a Right** – Investing in new service delivery models such as microtransit, Connected and Autonomous Vehicles; focusing on the optimization of existing bus route network and bus stop amenities including benches, shelters, and ADA enhancements.
- 2) Prioritizing Safety Across the Agency** – Ensuring technology, training, and practices prioritize safety for the riding public and employees with investments such as Mobile Eye cameras on buses and partnerships with the Pedestrian Safety Council.
- 3) Delivering Quality Service to Our Customers** – Increasing hours and frequency of transit service and providing more information, such as real-time arrival information for bus and paratransit users, these strategies encourage use of our system.
- 4) Greening our Environmental Footprint** – Improving ridership through transit that uses clean; promoting Rideshare Delaware that helps connects people with options such as van- and car-pooling while providing information about walking, biking, and taking transit.
- 5) Investing in Our Workforce** – Ensuring that transit is a mobility option starts with a workforce that takes pride in service to the community while providing growth opportunities.
- 6) Committing to a Culture of Innovation** – Piloting new applications, software and technology, that are responsive and adaptive to changing protocols and approaches

DTC’s new Office of Innovation, led by the agency’s first chief innovation officer, will advance new solutions and approaches that improve mobility options for Delaware’s residents, employees, and visitors. The Office of Innovation is currently leading the new Cooperative Automated Transportation (CAT) Section. CAT technology enables the integration of all modes

of transportation to encourage a safe, multimodal transportation system. This new section will advance the Delaware Department of Transportation’s Connected and Automated Vehicles (CAV) program across the Transportation Management Center, the Department of Motor Vehicles, Planning, and other sections within each of the department’s divisions. Included in CAT is the launch of the autonomous vehicle transit shuttle pilot program, an effort to explore and gather data regarding CAV technology.

The Office of Innovation will also advance DTC’s efforts to develop on-demand transit service using fixed-route and paratransit buses. On-demand transit, using a mobile platform and web-based portal, was identified as key near-term priority by the Technical Advisory Committee. In May 2020, DTC applied for a federal grant to pilot on-demand technology; successful applicants will be notified in fall 2020.

### **Path Forward**

The 2017 *Evaluating the State of Mobility Management and Specialized Transportation Coordination in Delaware* report listed final recommendations and a recommended path forward, beginning on page 93. The top recommendation, to update Delaware’s Coordinated Plan, will be achieved upon DTC’s adoption and implementation of the 2020 Delaware Coordinated Public Transit–Human-Services Transportation Plan. Other 2017 recommendations remain valid and, if adopted, will help DTC to reduce cost pressures for all transit modes, address unrestricted use of paratransit services, and create alternative and affordable transportation options for all Delawareans and transportation-disadvantaged populations. Major recommendations, many of which mirror the priority strategies identified *Mobility in Motion* TAC, include:

#### **1. Realign Delaware’s Section 5310 program**

Under the FAST Act, the coordinated plan serves as the foundation for the allocation of Section 5310 program funding for both “traditional” (i.e., capital projects) and “non-traditional” (e.g., enhanced mobility and mobility management) projects. The FAST Act requires at least 55 percent of the Section 5310 program to be spent on capital public transportation or “traditional” projects that are planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable.

The other 45 percent may be used for “non-traditional” projects that focus on enhancing mobility management activities to promote, coordinate, and facilitate transportation-service access for transportation-disadvantaged persons. Non-traditional projects should reflect “high-

priority” transportation services, projects, and program strategies that are identified as part of a coordinated plan participatory planning process. These include capital and operating projects that (1) exceed the requirements of ADA, (2) improve access to fixed-route service and decrease reliance on complementary paratransit, and/or (3) expand specialized and affordable public transportation options, improve mobility infrastructure, and/or provide innovative technology (e.g., travel information portal/trip planning system). Under the FAST Act, both states and local government entities operating public transit services may be direct recipients of Section 5310 assistance. As detailed in Section III, a competitive application process, scoring, and other criteria could be used in Delaware to strategically allocate Section 5310 program funds—particularly non-traditional and pilot projects.

Moreover, FTA requires that the coordinated plan follow the same plan update cycle as transportation improvement programs (TIPs) prepared by metropolitan planning organizations (MPOs). A MPO’s TIP may be described as the first four years of a region’s Long Range Transportation Plan that lists all regionally significant and federally funded transportation projects and services in the planning area. Federal surface transportation law requires states to incorporate TIPs into a four-year statewide transportation improvement program (STIP). As such, Delaware should either (1) synch its Coordinated Plan update schedule to match the TIP update cycle or (2) integrate the planning processes to simultaneously update both the Coordinated Plan and TIP.

## **2. Advance a Mobility Management Framework in Delaware**

Mobility management consists of a combination of planning, management activities, projects, and Intelligent Transportation Systems (ITS) technologies to improve coordination among public transit and other transportation service providers. A customer-centric approach, mobility management focuses on the meeting the needs of customers through a wide range of options and service providers. It also focuses on coordinating specialized transportation services and providers to achieve a more efficient transportation service delivery system.

Mobility management involves using promoting the use of innovative technologies, services, and other methods to improve customer service and coordination, improving coordination through transportation brokerage systems, and developing customer information and trip planning system (FTA, 2018). Mobility management is an eligible capital expense under most FTA funding programs, including the Section 5310 program.

### 3. Consider Piloting National Best-Practice Models Appropriate for Delaware

IPA’s research of national best practices in 2016 and updated literature review, undertaken to prepare this plan, identified viable strategies to improve mobility and coordination of specialized transportation services in Delaware. Following the passage of the FAST Act in 2015, FTA announced several funding opportunities for pilot and demonstration projects to advance innovative transportation and transit service options in combination with available technologies that allow for greater individual mobility. Examples of FTA funding opportunities included:

- **Mobility on Demand (MOD) Sandbox Demonstration Program** (FY 2016) – Fund project teams to innovate, explore partnerships, develop new business models, integrate transit and MOD solutions, and investigate new enabling technical capabilities such as integrated payment systems, decision support, and incentives for traveler choices.
- **Integrated Mobility Innovation Demonstration Program** (FY 2019) – Fund projects to transform the traveler experience by developing and deploying technologies that improve mobility across all modes of travel.
- **Mobility for All Pilot Program** (FY 2020) – Improve mobility options and access to community services for older adults, individuals with disabilities, and people with low incomes.

While these federal funding opportunities are extremely competitive and difficult to procure, existing funding could be leveraged to independently test a pilot project in Delaware. Project partners would need to be identified and formed to innovate, develop new business models, integrate transit and mobility-on-demand solutions, and investigate new enabling ITS technical capabilities.

One pilot project model that was explored during the project period was the Greater Richmond Transit Company’s (GRTC) “CARE On-Demand” premium paratransit service ([rideGRTC.com](http://rideGRTC.com)). The CARE On-Demand program supplements GRTC’s traditional ADA paratransit service in the Richmond (Va.) area. The precedent-setting program provides eligible GRTC paratransit or “CARE” riders with greater flexibility in meeting their mobility needs through a premium-service option. GRTC transitioned from a previous phone-based booking system to an online booking portal. Paratransit customers can opt to pay an additional fee for a premium service that provides same-day, direct, non-stop trips within a limited geographic area. Online booking portals have also improved non-emergency medical transportation at Nemours Alfred I. duPont Hospital for Children in Wilmington, Delaware, and for the Camden Coalition, a group of Camden, New Jersey, health care providers, community partners, and advocates committed to elevating the health of patients.

#### 4. Elevate the Importance of Land Use and Transit Integration

The greatest return on public investment in transit occurs when it is coupled with efficient and compact land-use development that creates a local population density that supports higher levels of transit use; a mixture of land uses that decreases the need for driving by providing walkable destinations for individuals who wish to decrease reliance on vehicular use; the creation of Complete Streets that support active transportation; and the availability of several travel choices.

The updated 2020 *Strategies for State Policies and Spending* (i.e., State Strategies) identifies the state’s goals and policies for land use, infrastructure investment, and other priorities as developed by the Cabinet Committee on State Planning Issues. It provides an excellent framework for continued collaboration on determining what areas are most prepared for growth and where the state can make the most cost-effective investments in public infrastructure, facilities, and services. Moreover, State Strategies advocates for “complete communities [that] typically include an integrated pedestrian and bike network, newer streets interconnected with existing streets, intermingling of residential and commercial uses, and the inclusion of parks or open-space networks within developments. If properly designed, the positive impacts of this type of development from the public sector perspective would include a more diverse range of transportation and housing options and a more economical extension of public services and utilities...” (OSPC, 2020).

As detailed in the 2017 report, there are some disconnects in land-use and transit planning. “Changes in demographics, shifts in land-use patterns, and the disconnection between land-use and transit planning can all drive demand for specialized transportation services (including paratransit) in Delaware. “Demand drivers” of paratransit services in Delaware include the development of “age-restricted” communities in remote areas, policies permitting private roads and cul-de-sacs [in Sussex County], first- and last-mile barriers to transit, and the location of community service facilities relative to transit” (O’Hanlon et al, 2017). In addition, Section V of this plan underscores the need for emergency preparedness planning for vulnerable populations. Additional efforts among Delaware’s current state and local government agencies that provide emergency planning services and lead plans, could include coordinated opportunities for education and services aimed at better supporting vulnerable populations, including transportation-disadvantaged individuals. A starting point may be in Sussex County where local emergency planning efforts are limited in higher-risk areas with increasing older adult populations.



## Measuring Success

In advancing these strategies and plan recommendations, it will be important for DTC to continually engage with an identified stakeholder group representing multiple state agency leaders as well as transportation-disadvantaged populations. This is in keeping with DART First State’s mission and commitment to designing and providing the highest-quality public transportation services that satisfy the needs of the customer and the community, while also connecting with community partners to provide affordable, safe, and efficient mobility options. Measuring success of the Delaware’s updated Coordinated Plan should consider:

### Objectives

- Maximizing use of existing resources.
- Increasing efficiencies in service delivery.
- Enhancing the customer experience.
- Leveraging use of technology to improve transportation services.

### Evaluation Criteria

- **Effectiveness** – Fair and equitable distribution of Section 5310 funds, effective program administration, and adequate monitoring of Section 5310 subrecipients as outlined in a Delaware state PMP.
- **Economy** – Total costs, capital vs. operating costs, large capital outlays, and present-valued expenditures over the long term.
- **Efficiency** – Cost per trip, per vehicle hour, plus costs to customer and funding partners.
- **Level of Service** – Reservation constraints, hours of service, frequency of service, and trip purpose.
- **Quality of Service** – Enhanced customer experience (e.g., convenience, transfers, travel time, comfort, safety, and flexibility).
- **Socio-Economic Factors** – Impact on access to employment centers, medical centers, community centers, and social well-being.
- **Civil Rights Implications** – Compliance with ADA and Title VI.
- **Organizational Issues** – Operational flexibility, control and accountability, human and labor relations, and ease of implementation.
- **Risks** – Technical, state public policies and laws, financial (e.g., possible reallocation of capital outlays).

Strategies should be driven by a consensus on an overall long-term vision, goals, and objectives, including but not limited to:

- Evolving federal and state planning and policy frameworks.
- Growth (and changes) in the transportation-disadvantaged populations.
- Fiscal responsibility.
- Enhancement of the customer experience (e.g., integrated trip planning, booking, real-time customer information, broadcast trip-arrival information).
- Next-generation mobility.
- Opportunities to leverage innovative technology.
- Recognition of the dynamic market for “essential” services from the changing retail landscape to e-commerce to the delivery of medical/diagnostic services via telemedicine and virtual experiences.

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Appendix D: Delaware DPH Emergency Preparedness Efforts

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Appendix K: Technical Advisory Meeting Summary – April 2019

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