Transportation Planning Capacity Building

U.S. Department of Transportation
Federal Highway Administration

Case Study: Delaware DOT (DelDOT)/Delaware Transit Corporation (DTC)'s DART Connect Program

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DART Connect is an on-demand, microtransit service that offers flexible and accessible rides to better meet the needs of riders. DART Connect allows riders to be better connected to their vital destinations while improving transit efficiency. As the needs and habits of Delaware's transit riders have changed, Delaware Department of Transportation (DelDOT) and the Delaware Transit Corporation (DTC) have adapted through consistent examination of existing service capabilities—overcoming historical coverage limitations due to geographic parameters.

Background and Demographics

In 1969, the State of Delaware created the Delaware Administration for Regional Transit (DART) to oversee bus operations within the state. Although initially operating under the Greater Wilmington Transportation Authority, the governing agency was later replaced by an agency held under DelDOT in 1971. As Delaware's public transportation network began to expand, DTC was formed in 1994 to manage and operate the statewide DART transit system.

DTC serves all three of the state's counties: Kent, New Castle, and Sussex. Delaware's population and employment density varies significantly between the counties. New Castle County contains four of the state's five largest cities by population, including Wilmington, Delaware's most populous municipality. On the other hand, both Kent and Sussex counties are predominantly rural. The population of New Castle County is 570,719, while the populations of Kent and Sussex counties are 181,851 and 237,378 respectively. [1]

PROJECT SNAPSHOT

- Launched in 2021, DART Connect is an on-demand microtransit service
- DART Connect serves rural communities with limited transportation access
- DART Connect demand was first understood through flex and paratransit services

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TRANSIT SERVICE IMPLEMENTATION HIGHLIGHTS

- DART Connect serves three cities: Georgetown, Millsboro, and Newark
- Rides are available between Georgetown and Millsboro, due to the demand by ridership to access service and poultry industry opportunities

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[1] U.S. Census Bureau; 2020 Census Bureau Tables. https://data.census.gov/table

According to an onboard survey conducted by DTC, 13 percent of riders spoke a language other than English at home, and half of surveyed riders identified as Black or African American. In the Sussex County cities of Georgetown and Millsboro, the poverty rates are 17.8 and 12.8 percent, respectively, much higher than the statewide rate of 9.4 percent.[2] Delaware's varying level of density and varied population creates a wide range of transit needs, making it particularly challenging to create services that can meet the needs of all riders.

Delaware Transit Corporation (DTC)

The Delaware Transit Corporation (DTC), operating DART statewide transit services, is housed under DelDOT. DTC was created to oversee the statewide public transportation network. As the only public transportation agency in the state, DTC provides a wide range of services that best support the needs of their riders coming from varied socioeconomic circumstances. DTC operates 58 bus routes statewide, including seasonal beach service, one flex route, statewide paratransit services, and on-demand microtransit service known as DART Connect. DTC also manages contracted services with other transit agencies, including the Wilmington-Newark commuter train service operated by the Southeastern Pennsylvania Transportation Authority (SEPTA).

Rural Planning Process

Through evaluations of the transit network, DTC found that many routes were underperforming while transit needs remained high. Given Delaware's predominantly rural characteristics and low-density development patterns, fixed transit routes were limited and unable to fully meet community needs. To address this issue, DTC began offering flexible bus services that could deviate up to one mile from a fixed route through advanced reservations. The flexible service was launched in 2014, serving the cities of Georgetown and Millsboro in Sussex County, as these cities had the highest number of paratransit and fixed route transfers. While the flexible service saw some success, DTC assessed that the transit needs of the community were still not being fully met. Many riders noted that headways were too far apart, and routes were not accessing convenient stops, leading to lower ridership numbers than anticipated. The latter factor has an especially high impact on ridership. For many community members, the ease of access from a person's origin or destination to the transit stop, also known as the first and last mile connection, is a major barrier to transit access. Furthermore, the flexible service options were not as convenient as they could have been, as they took too much time to pick up passengers, routes were long and inefficient, and people were stuck on buses for too long.

From these findings and with support from the Federal Transit Administration (FTA) Accelerating Innovative Mobility (AIM) grant, DTC developed DART Connect, an on-demand/microtransit service serving the cities of Georgetown and Millsboro, in April 2021. DART Connect allows users to either use a mobile app or dial a call center to request a ride within the service areas, with rides between Georgetown and Millsboro also available. DART Connect was not designed to be a door-to-door service but instead aimed to reduce walking distances to pick up locations for riders, setting a standard of approximately 700 feet (or one city block) walking distance to a pickup location. DTC officials also hoped DART Connect would minimize waiting times for rides, setting a target of 15 to 20 minutes from when a ride is requested to when the vehicle arrived.

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[2] U.S. Census Bureau; Georgetown and Millsboro, Delaware.

Public Engagement and Stakeholder Collaboration

To develop DART Connect, DTC conducted extensive public outreach with the goal of speaking with a wide array of stakeholders. DTC met with community members, local universities and colleges, and businesses in the area. Public outreach events were held in a variety of locations, such as libraries, universities/colleges, and transit centers. DTC found that for Sussex County, setting up an outreach table at transit hubs and holding casual conversations with transit users was effective. Virtual public engagement opportunities were also offered through online meetings, while officials also made public engagement materials available online. Although language interpretation was provided at public outreach events and informational resources were available in different languages, DTC found that communities with limited English proficiency remained difficult to engage.

As one of the major mobility issues observed was connecting people to places of employment, DTC engaged extensively with the area's large employers. Sussex County is one of the largest poultry producers in the United States, with major processing facilities in Georgetown and Millsboro. However, Sussex County has Delaware's lowest median household income, and nearly six percent of residents do not have access to a vehicle.[3] Additionally, eastern Sussex County is a resort area, and a very popular tourist destination which serves as another source for employment in the area. However, given some of these major resort towns, i.e., Rehoboth, Bethany, Fenwick, and Dewey are tourist destinations, most people that work in these resort areas cannot afford to live there and must commute from western Sussex County. Georgetown is also a Federally Designated Opportunity Zone, a designation placed on economically distressed communities that may benefit from new investments and are provided preferential tax incentives under certain conditions. Given Sussex County's broad economic activities and transit needs, DTC worked closely with poultry farms, other major employers, residential complexes, education, and social service agencies to discuss how DART Connect can help provide reliable transportation to jobs.

Implementation

The information gathered from conducting public outreach and comprehensive analysis conducted by DTC helped to determine where DART Connect services would be the most impactful. Georgetown and Millsboro were selected to pilot DART Connect, with the service launching in 2021. Implementation required extensive, hands-on public outreach efforts to advertise DART Connect, educate the community about the service, and teach community members how to navigate the mobile app. Resources about DART Connect and guidance for using the service were published online as well. DTC conducts its own outreach activities and participates in DelDOT outreach, but DTC also aims to participate in external outreach events to take advantage of any opportunities to promote DART Connect. As of January 2023, Sussex County's DART Connect services provided over 34,000 rides serving an average of 70 to 80 passengers per day.[4]

Lack of cellphone-based internet access has been a major challenge in adequately serving the needs of DART's rider base. Approximately 50 percent of Sussex County residents did not have internet access on their phones. To book a ride through DART Connect, most users are unable to use the mobile app and instead book rides through DART's call center. While this does not diminish service, not having access to the mobile app reduces some of the DART Connect's trip planning features, including real-time vehicle

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[3] https://www.dartfirststate.com/About/news/index.shtml?dc=details&id=8565
[4] https://learn.sharedusemobilitycenter.org/casestudy/connecting-rural-communities-with-dart-connect/

tracking. Development of surrounding internet infrastructure will allow for future iterations of the service to collect more accurate data and provide further offerings of efficiency.

Next Steps

After the success of the initial launch, DART Connect expanded to Newark in New Castle County in 2023. Also in 2023, DTC began working on *DART Reimagined*, a comprehensive statewide transit study to inform policy recommendations and implementation strategies for improving the state's transit system. This study included analyzing the performance of the fixed route system, conducting a market analysis, predicting the socioeconomic and land use trends for the next few years, and conducting a service gap analysis to identify where supply and demand were misaligned. The results of *DART Reimagined* were published in 2024.

DART Reimagined proposes implementing eight additional DART Connect services by 2028. DTC anticipates that expanding microtransit services while consolidating fixed routes will require public outreach and educational efforts to ensure a smooth transition and increase public support. DTC is also aiming to transition their fleet to electric, hydrogen, or propane vehicles.

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Resources

DART Connect - Dart First State

DART Connect offers on-demand transit service | Cape Gazette

DART Connect set to launch in Georgetown and Millsboro | Delaware First Media (delawarepublic.org)

DART Reimagined Final Report

DART Reimagined State of the System

How to use DART Connect, DART's Newest Transit Service | | wrde.com

Millsboro's new public transit has pick-ups from the nearest corner | State | coastalpoint.com

Newark transitions to DART Connect for improved accessibility - WHYY