

**EVALUATING FEDERAL TRANSIT ADMINISTRATION
GRANT ALLOCATIONS FROM THE
MICHIGAN DEPARTMENT OF TRANSPORTATION
OFFICE OF PASSENGER TRANSPORTATION
RURAL AND SMALL URBAN PROGRAM
TO LOCAL TRANSIT PROVIDERS**

September 2020



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Introduction

This report serves to demonstrate Michigan Department of Transportation's (MDOT's) Federal Transit Administration (FTA) grants administered by the Office of Passenger Transportation (OPT) to local transit providers for rural and small urban areas are in compliance with Environmental Justice (EJ) requirements stated in Executive Order 12898 (EO 12898) of 1994 and Title VI requirements. Title VI is an Act of Congress (in the landmark Civil Rights Act of 1964, as further specified in 42 U.S.C. §2000d) that prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.

Title VI of the Civil Rights Act of 1964 and EO 12898 of 1994 are similar actions of government geared to equitably distribute federal funding, empower communities and to control the disparate (be it health, physical, social, and economic) impact of Federally funded projects in minority and low-income population areas, and in communities of elderly (65 years of age and older) and disabled persons.

For this evaluation, Minority represents those populations whose ethnic background includes:

- Black or African American (a person having origins in any of the Black racial groups of Africa);
- Hispanic or Latino (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
- Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands);
- American Indian or Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition); and
- Native Hawaiian or Other Pacific Islander (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands).

Low-Income represents those populations whose economic background includes:

- Income over the past 12 months that has been below the poverty level
- Persons over the age of 65; and
- Living in an occupied housing unit with no vehicle(s) available.

This report solely focuses on those transit-related funding activities administered by MDOT in the rural areas of Michigan with a population less than 50,000 for Fiscal Years (FY) 2017-2019. There are 21 urbanized areas¹ (population 50,000 or greater) in Michigan and they receive funds directly

¹ This total includes those portions of the Toledo (OH), Michigan City-La Porte (IN), and Elkhart (IN) urbanized areas that fall within the State of Michigan.

from the FTA and may not be included in this report. This report presents statistical information that supports the fact that Michigan has equitably distributed funds to comply with Title VI requirements of 1964 and EJ EO 12898 of 1994. Urbanized areas in Michigan over 50,000 have environmental justice and Title VI compliance evaluated by the Metropolitan Planning Organization (MPO) as part of their transportation planning process in their Transportation Improvement Program (TIP) and Long-Range Transportation Plan (LRTP) documents.

This report documents the process used by OPT to assure Title VI and EJ requirements are being properly implemented.

Methodology

Two data sources were used to create this evaluation. The first source was from the OPT, who provided FY 2017 to 2019 FTA funding data from executed contracts between MDOT and its subrecipients. As stated earlier, funds that are passed directly from FTA to urban transit agencies (so-called “urbanized funds”) were not identified and included in this evaluation. The second source was from the U.S. Census, where the most recent demographic data (2015) was collected to determine minority, low-income, elderly, and disabled populations.

To develop EJ analysis maps, MDOT utilized a statistical method called the Location Quotient (LQ). The LQ is an economic base statistical technique used in calculating and comparing the shared distribution of a local economy to another referenced base economy. In this case, the LQ calculates the share of minority, low-income, elderly, and disabled persons at the Census Tract level to that share of people at the state level.

The statistical notation for LQ is:

$$LQ_i = \frac{\frac{n_i}{x}}{\frac{n}{x}} \text{ or } \frac{x_i}{x} \times \frac{n_i}{n}$$

Whereas,

LQ_i = Location Quotient for the local economy

x_i = Total number of EJ identified population groups for a local economy

n_i = Total population for the economy

x = Total number of EJ identified population groups for a reference economy

n = Total population for a reference economy

The LQ theory attempts to show if a local economy has a greater share than is expected compared to the given economy. The average of the local economy is compared against the average of the larger, given economy. The LQ method marks that extra contribution of such local economy as the additional contribution that such local economy contributed. Hence, a local economy having a LQ greater than one ($LQ > 1.00$) is recognized as an EJ zone within the state. Using the U.S. Census Bureau demographic data and the LQ as the statistical formula, a thematic map was generated

showing the geographic locations of EJ population groups as specified in EO 12898 of 1994 (using Census Tract data).

The OPT program of projects were used to assist with this analysis. These data sets were used to develop another schematic map that shows how much funding is allocated throughout the state on a county-level basis.

The goal of this methodology is to comparatively assess these schematic maps to see if:

- FTA funds are being allocated in accordance with the programs regulations and if those programs support Title VI requirements;
- FTA funds meet EJ requirements and justify the equity requirement of the federal directives; and
- Verify that the programs are meeting the vision, mission, and goals of FTA programs.

It is expected that after overlaying the two thematic maps, a pattern of distribution will show “how” and “where” FTA funds are disbursed and if such patterns support the concern for Title VI directives. The “how” part of this process is answered through a quick definition and statistical review of some of the programs funded in Michigan’s counties. The “where” is answered with the map overlays in the second part of this evaluation.

The map overlays will present aggregated data – that is, the summation of all funding programs in Michigan at each county and by fiscal year. Since this analysis will be showing distributive trends of FTA dollars in the last three fiscal years, the evaluation is capable of identifying future program shortfalls, connectivity gaps, and needs that can positively shape the vision, mission, and goals for implementing transit funding programs in Michigan.

“How” FTA Funds are Allocated in Michigan by Individual Programs

The “how” portion of this evaluation is divided into two broad FTA funding categories: operating assistance and capital assistance. FTA operating assistance is money used to run or operate public transportation purchased with capital funding. Most operating assistance for public transportation goes to pay employee salaries and benefits. Additional assistance can be used for fuel, insurance, maintenance, and utilities. FTA capital assistance is money set aside to build or purchase public transportation items such as buses, equipment, maintenance and administration buildings and bus shelters.

In Michigan, FTA operating, and capital assistance is allocated through the following formula grant programs and competitive grant programs:

- Section 5339 Bus and Bus Related Equipment and Facilities Program
- Section 5339 Bus and Bus Related Equipment and Facilities Competitive Program
- FY 2016 Section 5310 (FAST) Pilot Program Enhanced Mobility Competitive Program
- Section 70 Ferry Boat Formula Program
- FTA Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities
- FTA Section 5311 Formula Grants for Other Than Urbanized Areas Program
- State Operating Assistance (Local Bus Operating)

- State Specialized Service

Below is a brief explanation of each of these programs.

FTA Section 5339 Bus and Bus Facilities Program

The formula Section 5339 capital program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. MDOT received approximately \$1.7 million for rural agencies in FY 2017, \$3.5 million in FY 2018, and \$3.5 million in 2019. These funds were used primarily for bus replacement.

The FAST Act includes a new competitive program under Section 5339 that allows FTA to make grants to states and transit agencies for bus and bus facility capital projects. The competitive allocation provides funding for major improvements to bus transit systems that would not be achievable through formula allocations. MDOT received a total amount of \$3.6 million in FY 2017 and \$14 million in FY 2018 through competitive proposals process, of which approximately \$2.2 million was allocated to rural agencies for vehicle replacements in FY 2017 and \$9.5 million was allocated to rural transit agencies in FY 2018. These funds were used primarily for bus replacement.

Section 5310 (FAST) Pilot Program Enhanced Mobility Competitive Program

MDOT received \$1 million to expand a brokerage-based program only available in certain parts of the state to a statewide model. The program manages and delivers non-emergency medical transportation for older adults, people with low incomes, and people with disabilities, ensuring they have access to non-emergency healthcare. The coordination software records trips reserved by county in each region based on trip types, procedures, and clinic visits. Local health centers integrate the software and refer clients to the service.

Section 70 Ferry Boat Formula Program

The FAST Act continues the Ferry Boat Program (FBP), which funds the construction of ferry boats and ferry terminal facilities. However, the FAST Act modifies that formula, giving greater weight to the number of passengers carried by ferry systems. MDOT obligated approximately \$1.5 million in FY 2017, \$2 millions in FY 2018, and 0.8 million in FY 2019 for three Ferry Boat Service Agencies for vessel construction, upgrades, and dock improvements.

FTA Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities

The Enhanced Mobility of Seniors & Individuals with Disabilities Program provides formula funding to states to assist private nonprofit groups in meeting the transportation needs of the seniors (age 65 and over) and persons with disabilities where public mass transportation services are otherwise unavailable, insufficient or unequipped to handle their needs. The goal of Section 5310 is to provide financial assistance for capital and operating projects that are public transportation

projects planned, designed, and carried out to improve mobility for seniors and individuals with disabilities by removing barriers to transportation services and expanding the transportation mobility options available giving them access to health care, shopping, education, recreation, public and social services, and employment..

Funding for this program supports traditional and nontraditional 5310 projects. Traditional projects include the purchase of replacement and expansion vehicles , wheelchair lifts, ramps and securements, transit-related information technology systems, including scheduling/routing/one-call systems, mobility management programs and acquisition of transportation services under contracts, lease, or other arrangement.

Nontraditional Section 5310 include: travel training, volunteer driver program, building an accessible pedestrian signals or other accessible features, improving signage or way-finding technology, incremental cost of providing same day service or door-to-door service, purchasing vehicles to support new accessible taxi, rides sharing and/or vanpooling programs and mobility management.

Additionally, funds can be used for projects that exceed the requirements of the ADA; improve access to fixed route service and decrease reliance by individuals with disabilities on complementary paratransit; and for alternatives to public transportation that assist seniors and individual with disabilities.

FTA Section 5311 Formula Grants for Rural Areas Program

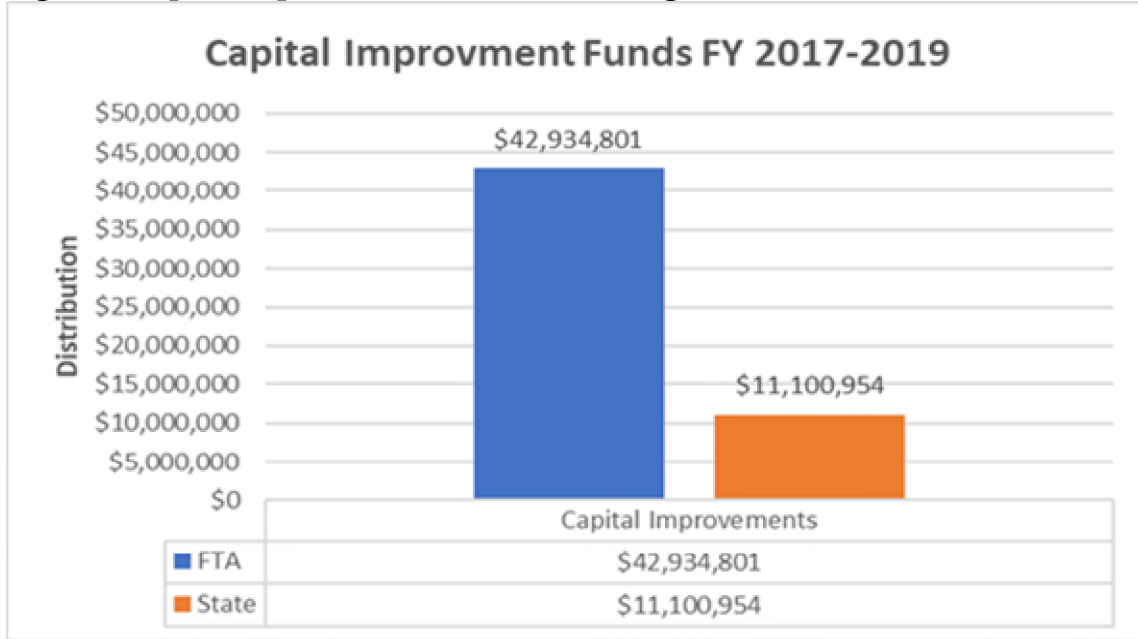
The Formula Grants for Rural Areas Program is formula based and provides funding to states for supporting public transportation in rural areas, with population of less than 50,000. The goal of the program is to provide the following services to communities with population less than 50,000:

- Enhance the access of people in rural areas to health care, shopping, education, employment, public services, and recreation;
- Assist in the maintenance, development, improvement, and use of public transportation systems in rural areas;
- Encourage and facilitate the most efficient use of all transportation funds used to provide passenger transportation in rural areas through the coordination of programs and services;
- Assist in the development and support of intercity bus transportation; and
- Provide for the participation of private transportation providers in rural transportation.

Section 5311 funds may be used for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. MDOT commits 85 percent of all Section 5311 funds to eligible rural public transportation agencies allowing them to provide much needed services to their clients, which includes minority and low-income populations. The remaining 15 percent of the funds are granted to operators of intercity bus services.

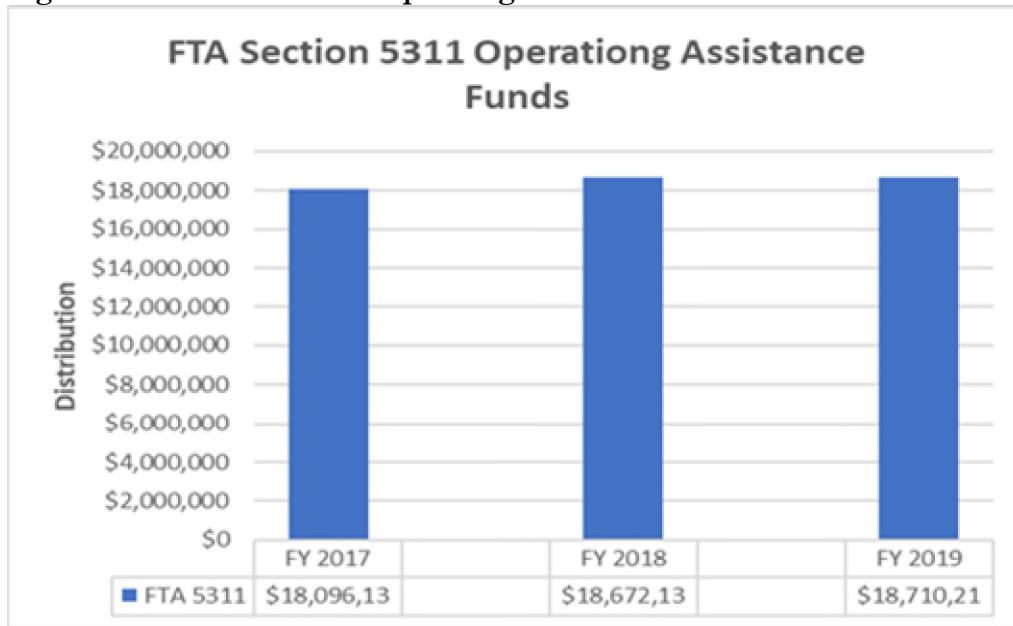
The charts on the following pages show the distribution of FTA funds for capital improvements and operating assistance to rural agencies, operating assistance for specialized services in all counties and federal Section 5311 and state operating assistance to agencies that receive both. These are funds that were distributed for fiscal years 2017 – 2019.

Figure 1: Capital Improvement Funds to Rural Agencies –



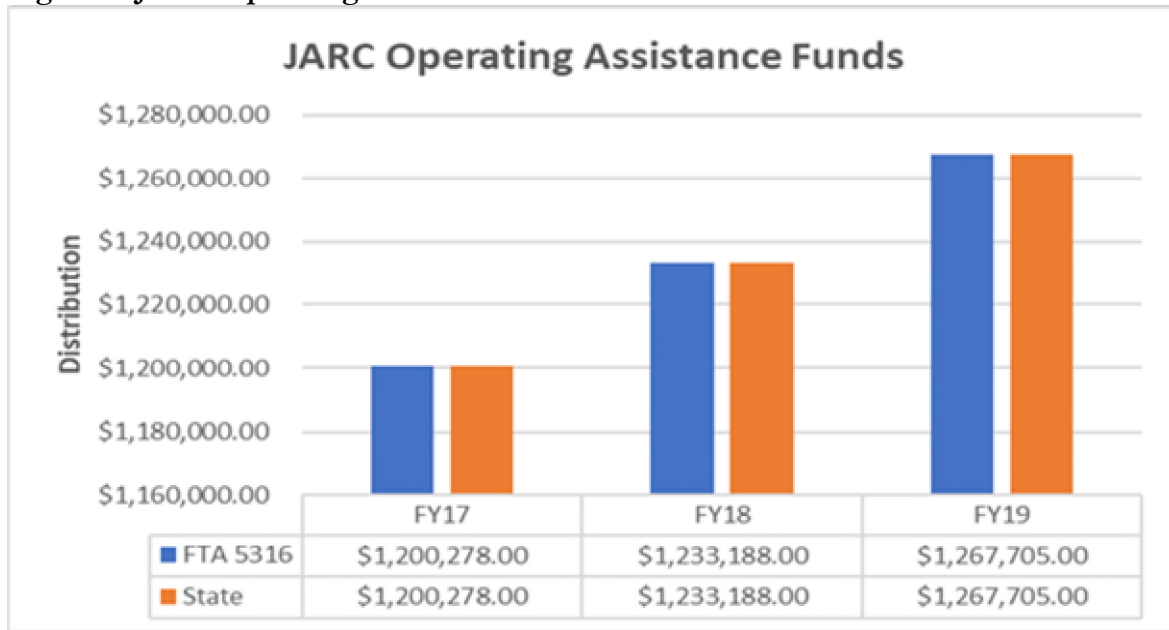
From 2017 to 2019, a total of \$42,934,801 was allocated from FTA to rural agencies in Michigan for capital improvements. The State of Michigan contributed \$11,100,954 to capital improvement projects during this same time for a total of \$54,035,757 in capital improvement investments.

Figure 2: FTA Section 5311 Operating Assistance –



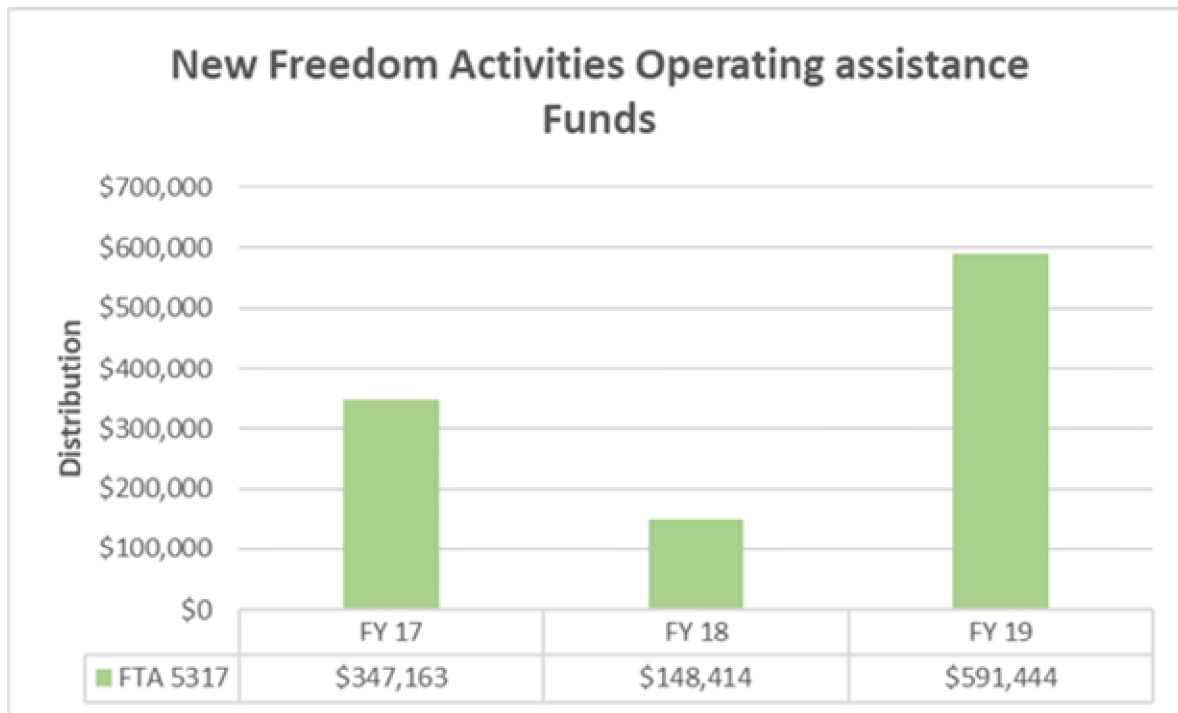
Total FTA 5311 funds from FY 2017 – 2019 allocated totaled \$55,478,483.

Figure 3: JARC Operating Assistance for Rural Areas –



Total Job Access Reverse Commute Program (JARC) funds from FY 2017 – 2019 allocated to Michigan rural communities totaled \$3,701,170. The State of Michigan contributed \$ 3,701,171 matching the federal funds dollar for dollar.

Figure 4: New Freedom Activities Operating Assistance funds to Rural Areas 2017 – 2019



Total FTA funds for New Freedom activities from FY 2017 – 2019 allocated to Michigan rural communities totaled \$1,086,021.

State Operating Assistance to Rural and Small Urban Communities

MDOT also provides state operating assistance to each public agency. The funds are an annual legislative appropriation to the Comprehensive Transportation Fund (CTF). The agencies are provided a percentage of their eligible operating expenses.

MDOT also provides state funds for specialized service. Specialized services are designed primarily for seniors and individuals with disabilities to supplement regular services. These services are developed by locals. The MDOT funds are a small part of the total funding. Reimbursement is paid by miles or per one-way unlinked passenger trip. Funds may be used to provide or purchase service and/or lease vehicles to provide service. MDOT provides funding to 37 specialized services agencies, but many of these agencies subcontract with smaller agencies that provide the transportation services.

Figure 5: MDOT Operating Assistance (Local Bus Operating) for agencies that receive FTA Section 5311 and LBO

From FY 2017 – 2019 MDOT provided a total of \$565,250,000 from the CTF for Local Bus Operating (LBO) to rural agencies and agencies that receive both 5311 and LBO.

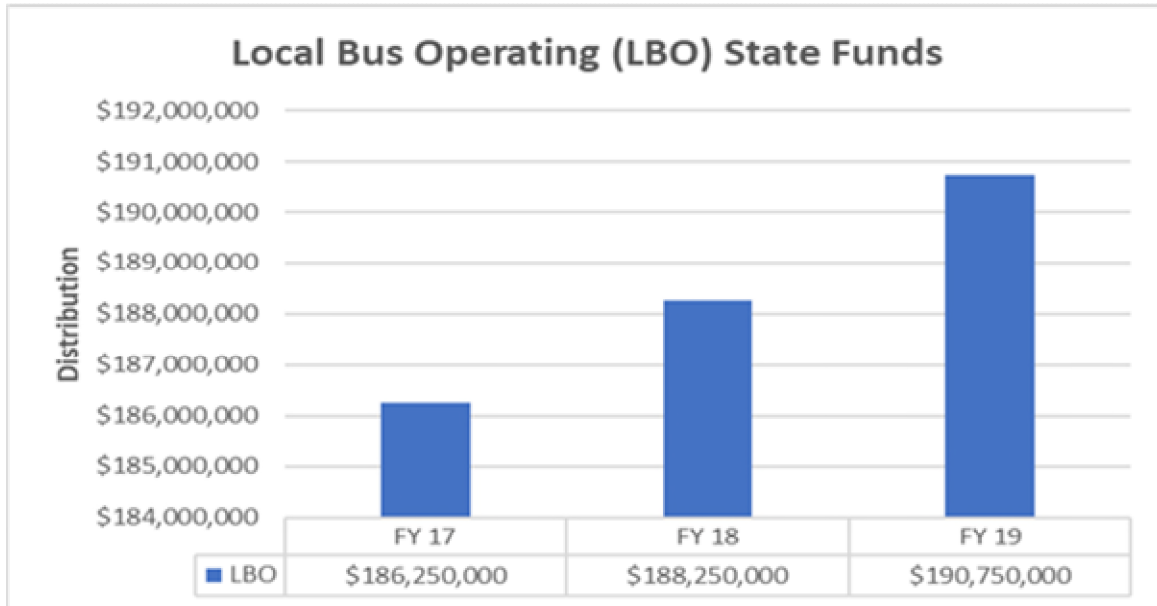
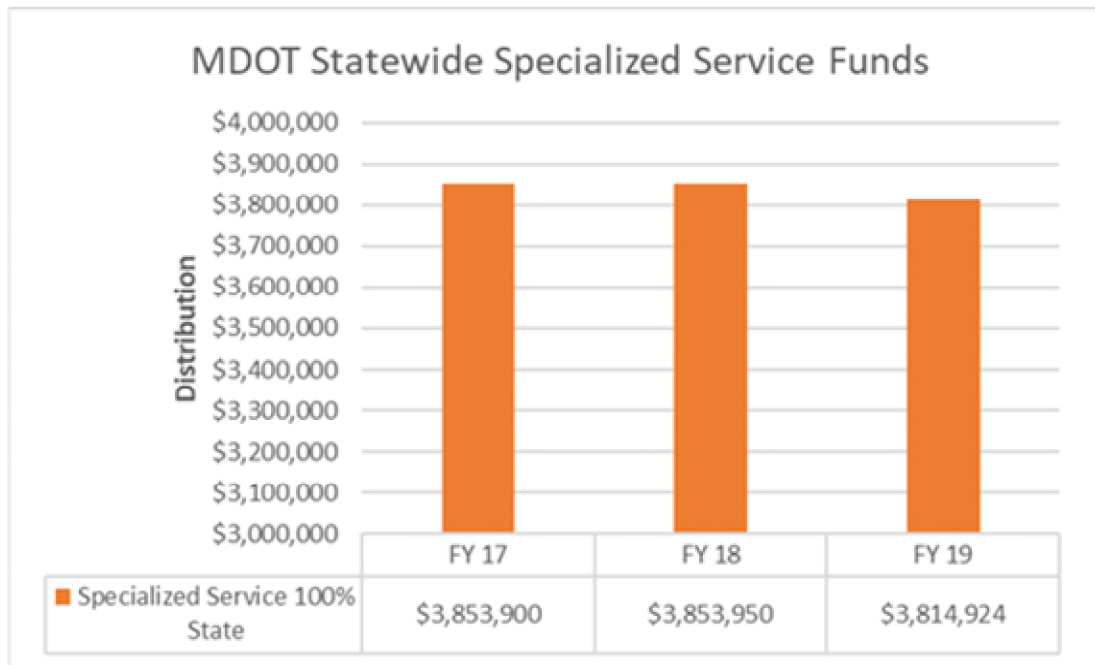


Figure 6: MDOT Statewide Specialized Services funds



From FY 2017 – 2019 MDOT provided a total of \$11,522,774 from the CTF for Specialized Service Operating (SSO) in Michigan.

Additional FTA and MDOT Transit Funds

The State of Michigan also provided \$51,077,095 for Ferry Boat Services to ferry boat providers in Michigan during FY 2017 – 2019.

This concludes the first aspect of the test to determine how Federal and State funds are allocated in accordance with Federal regulations. This shows how the Federal and State programs support the reliable, dependable, and affordable transit services in compliance with Title VI and EJ requirements.

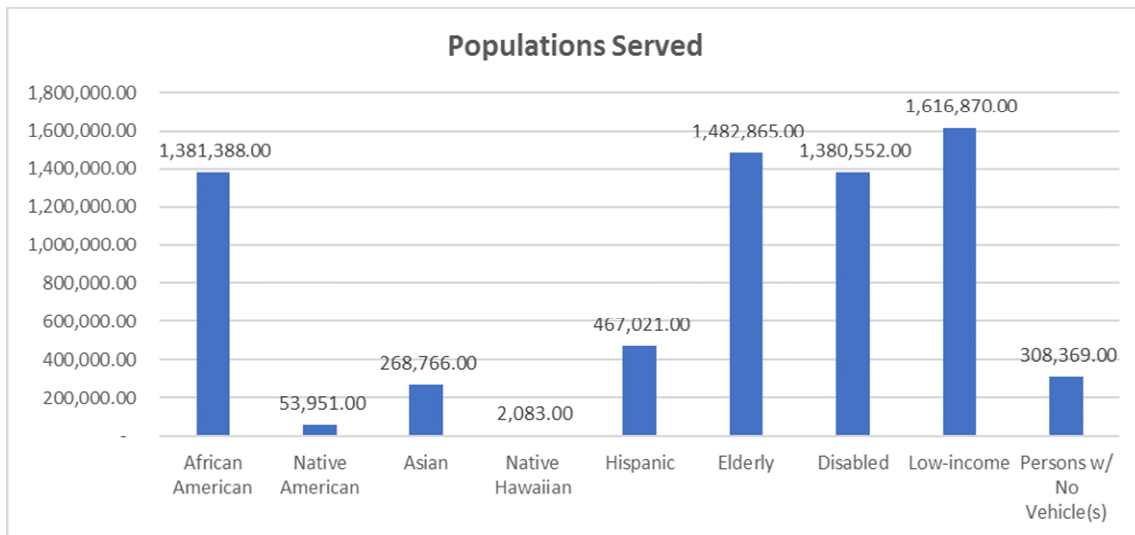
“Where” FTA Funds are Allocated in Michigan

The Michigan Department of Transportation (MDOT) is committed to providing reliable, dependable, and affordable transportation options for low-income and minority populations satisfy Title VI and EO 12898 requirements. Thus, based on the two data sources mentioned on page 1 and using the LQ statistical technique, the evaluation findings show an average of:

- 99 percent of the total Black or African American population in Michigan lives in an EJ identified Census Tract. The geographic location for this population group is mostly in the concentrated metropolitan and small urban areas.
- 99 percent of the total American Indian and Alaskan Native population in Michigan lives in an EJ identified Census Tract. The geographic location for this population group is mostly in sparsely populated rural northern and upper-peninsula areas.
- 98 percent of the total Asian population in Michigan lives in an EJ identified Census Tract. The geographic location for this population group is most in the concentrated metropolitan and small urban areas.
- 100 percent of the total Native Hawaiian or Other Pacific Islander population in Michigan lives in an EJ identified Census Tract. The geographic local for this population group is mostly in the concentrated metropolitan and small urban areas.
- 96 percent of the total Hispanic or Latino population in Michigan lives in an EJ identified Census Tract. The geographic location for this population group is mostly in the concentrated metropolitan and small urban areas of the lower half of the state.
- 94 percent of the total elderly (age 65 and older) population in Michigan lives in an EJ identified Census Tract.
- 95 percent of the total disabled population in Michigan lives in an EJ identified Census Tract.
- 92 percent of the total persons whose income in the past 12 months was below the poverty level) population in Michigan lives in an EJ identified Census Tract.
- 98 percent of the total persons living in occupied housing units with no vehicle(s) available in Michigan lives in an EJ identified Census Tract.

Thus, based on the U.S. Census (2015) and the LQ statistical method employed, the population served by FTA grants allocated across Michigan rural and small urban areas show that approximately 1.38 million Blacks or African Americans; 53,900 American Indians or Alaskan Natives; 268,700 Asians; 2,000 Native Hawaiians or Other Pacific Islanders; and 467,000 Hispanics or Latinos living in identified Census Tracts are being provided transit services. In addition, approximately 1.48 million elderly (age 65 and older); 1.38 million disabled; 1.61 million low-income (income in past 12 months below poverty level); and 308,000 persons living in occupied housing units with no vehicle(s) available are being provided transit services (see Figure 7). The FTA grants allocated touches the lives of not only these groups but also all citizens living in these Michigan areas.

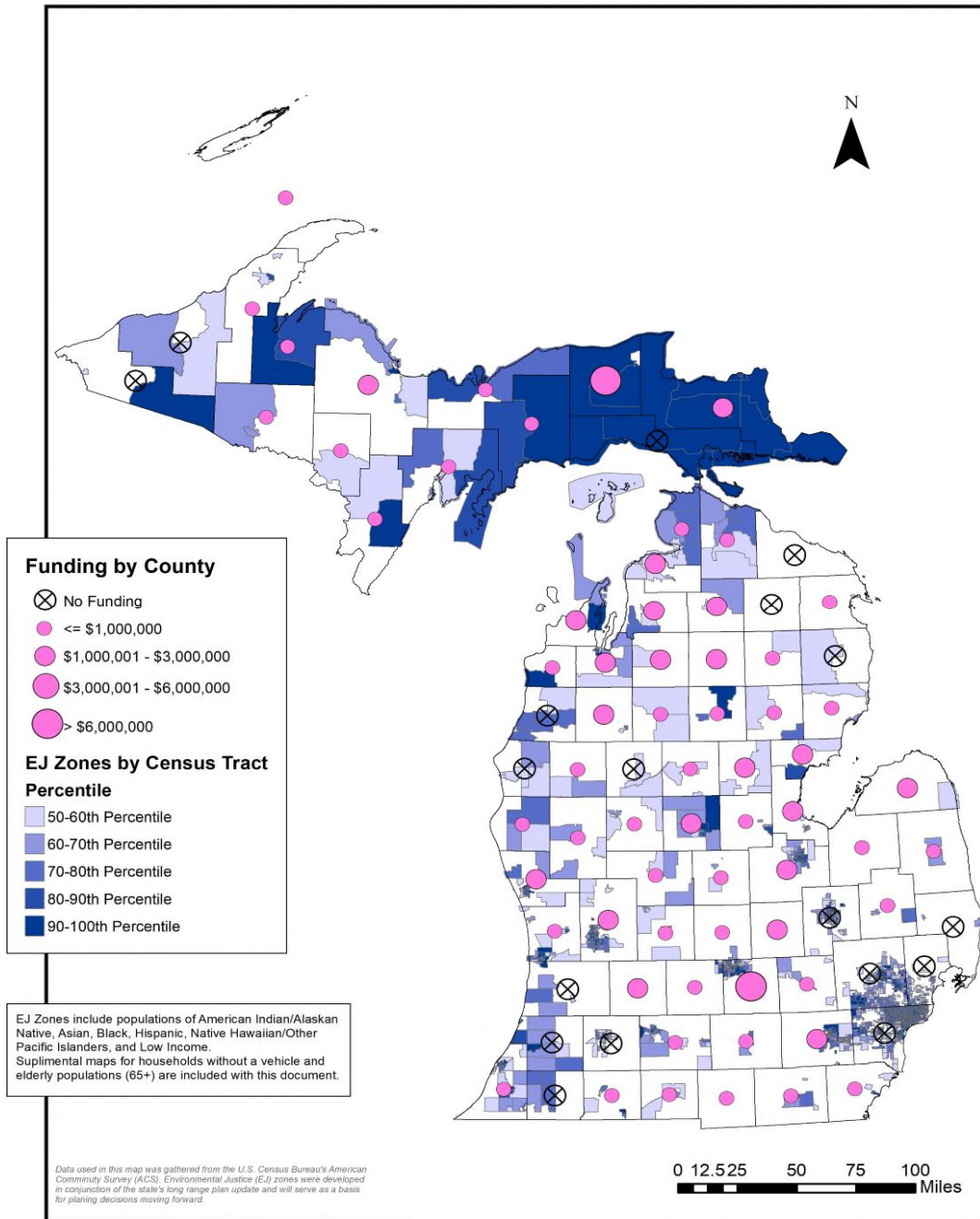
Figure 7: Populations Served by Transit Services in Michigan



Maps 1 through 5 below show the distribution of FTA grants to Michigan rural and small urban areas in FY 2017 – 2019.

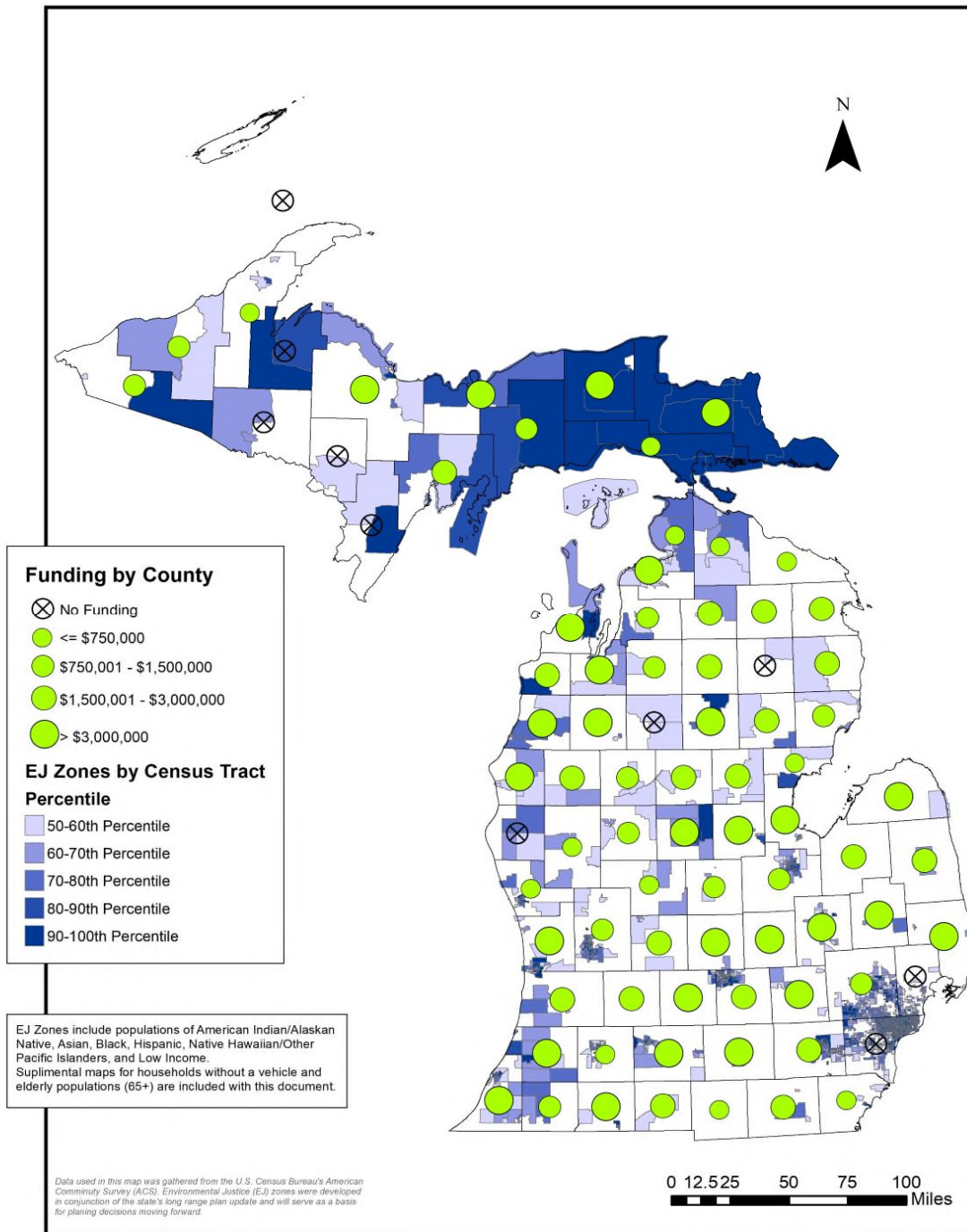
Map 1: FY 2017 -2019 Capital Assistance Funding by County

Fiscal Year 2017-19 Total FTA/MDOT Capital Funding



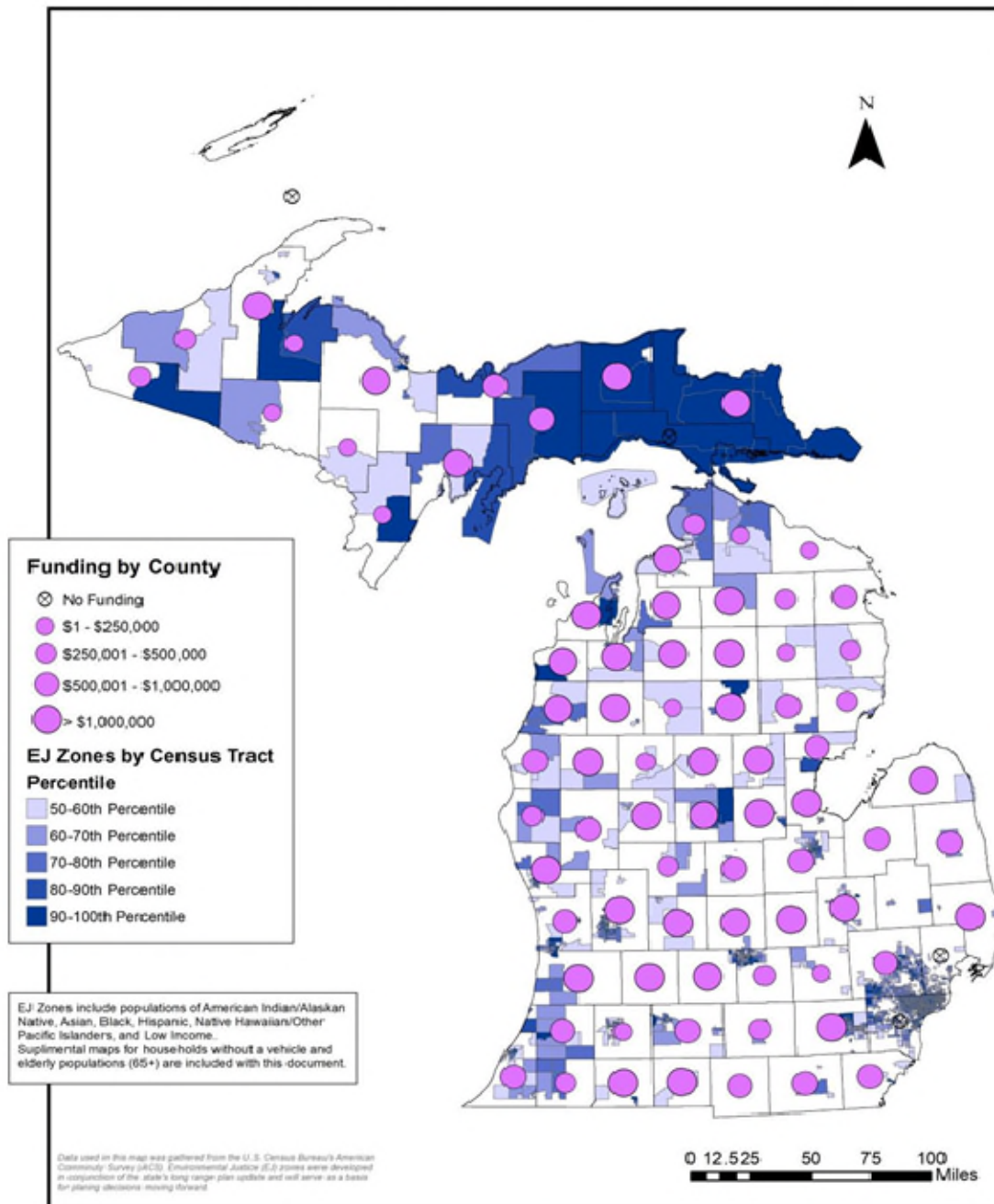
Map 2: FY 2017 -2019 Operating Assistance Funding by County

Fiscal Year 2017-19 Total FTA/MDOT Operating Funding



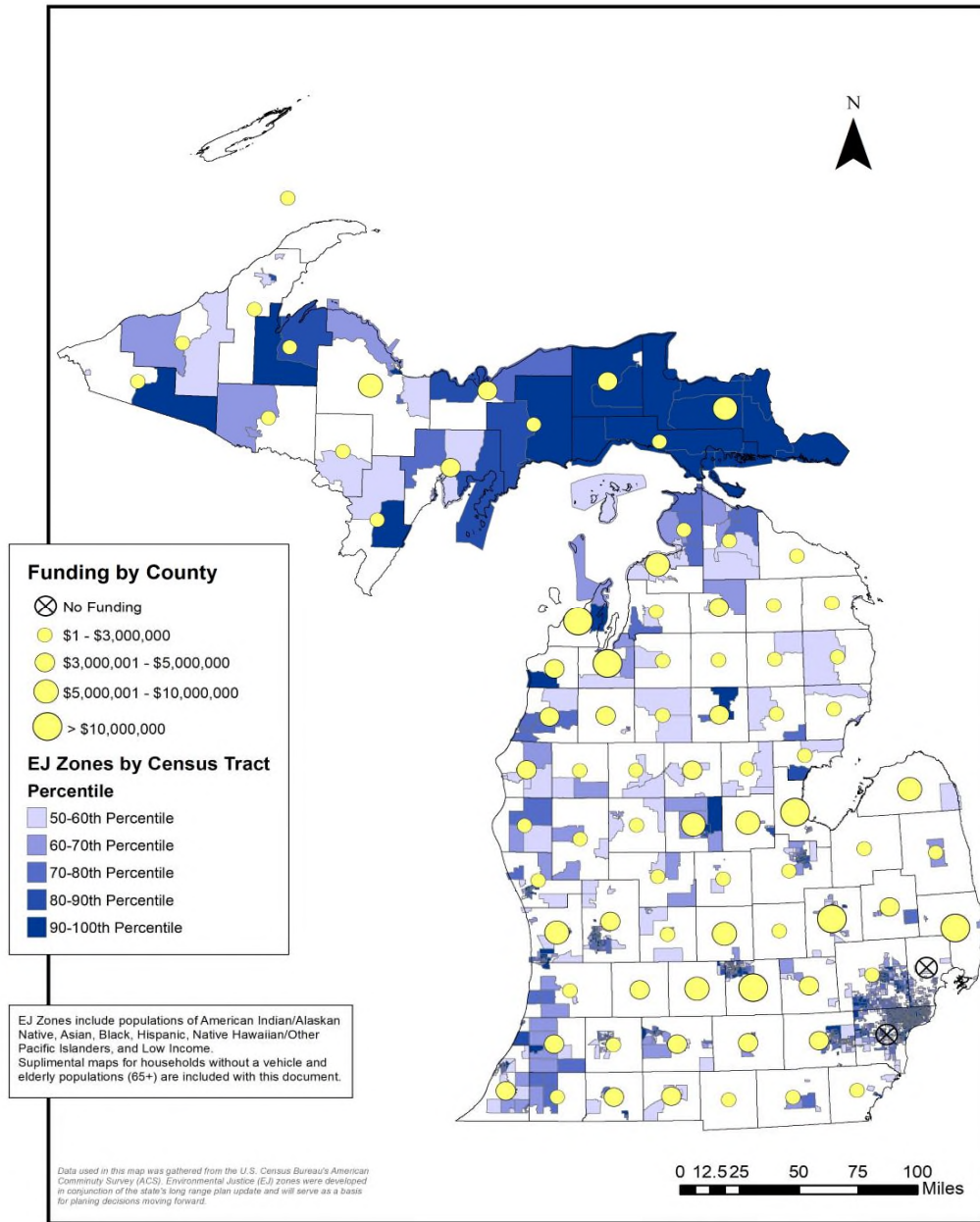
Map 3: FY 2017 -2019 Total FTA Funding by County

Fiscal Year 2017-19 Total FTA Funding



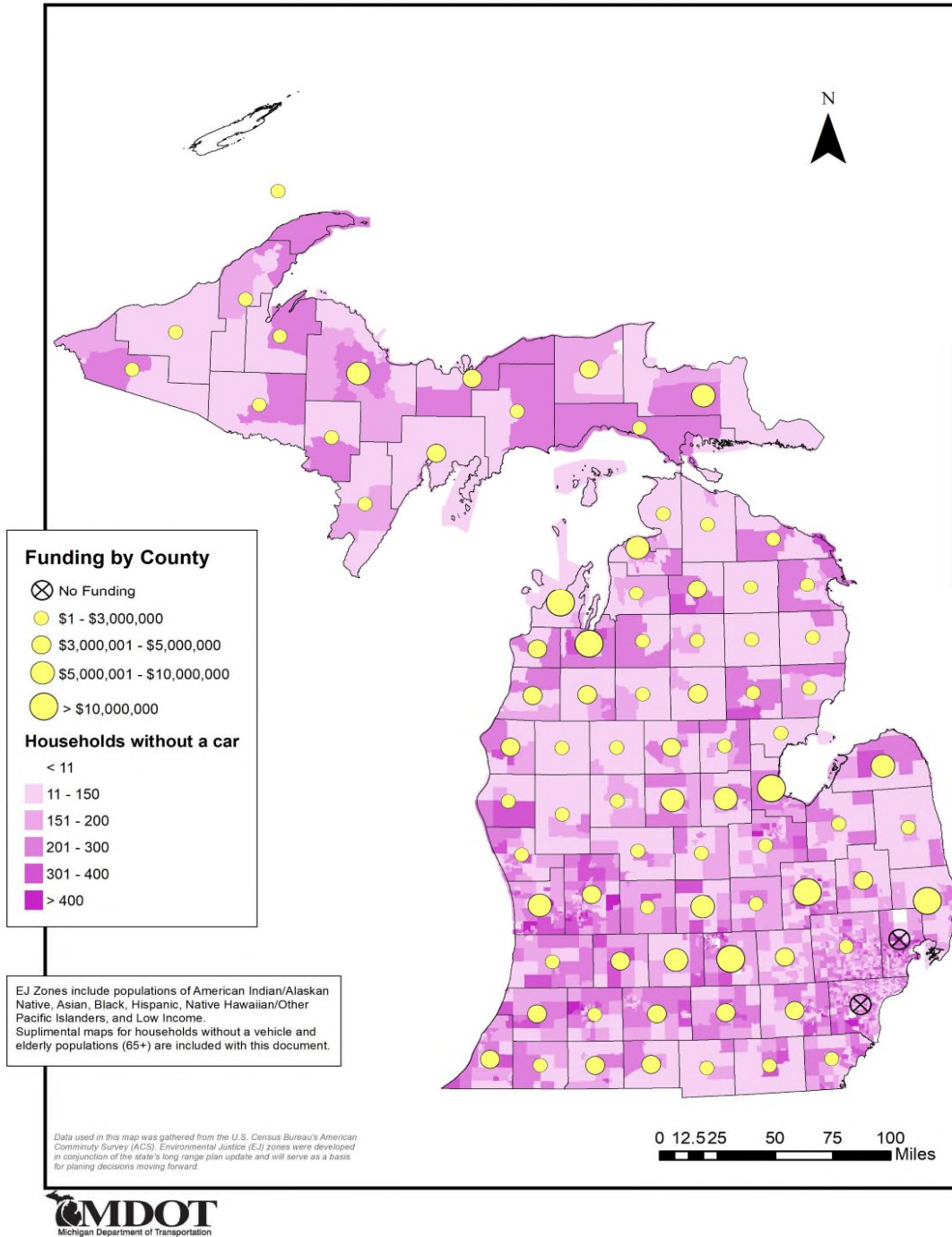
Map 4: FY 2017 – 2019 Total FTA/MDOT Funding with Environmental Justice Zones

Fiscal Year 2017-19 Total FTA/MDOT Funding w/ EJ Zones



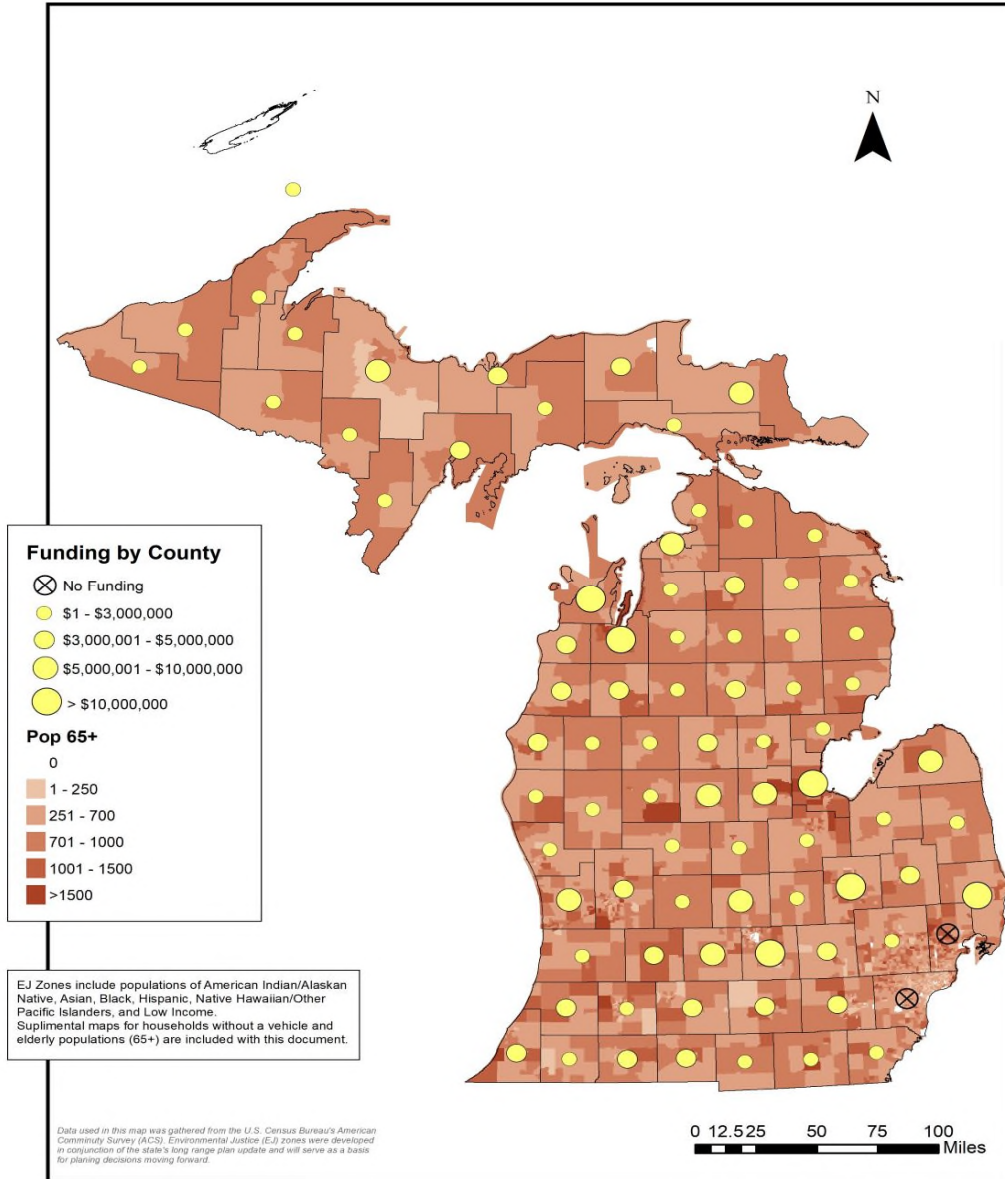
Map 5: FY 2017 – 2019 Total FTA/MDOT Funding with Household with No Car

Fiscal Year 2017-19 Total FTA/MDOT Funding w/ Households w/ No Car



Map 6: FY 2017 – 2019 Total FTA/MDOT Funding with Population 65+

Fiscal Year 2017-19 Total FTA/MDOT Funding w/ Pop 65+



Conclusion

Considering the goals set out in this evaluation, it can be reasonably concluded that FTA grants allocated in Michigan are county-wide in nature and meet the Federal requirements of Title VI and EO 12898 on Environmental Justice. The funding allocations address public transit needs for the provision of reliable, dependable, and affordable transit services in these rural and small urban areas which is the paramount goal of Title VI, as well as EO 12898 directives. The maps show connections between the spatial distribution of minority and low-income populations and the funding distributions of the various FTA grants administered by MDOT for transit services throughout the State. Further information regarding spatial distribution of racial minority, low-income, elderly (age 65 and older), and disabled persons who populations in Michigan is identified on a map.

Future Trends

Several on-going discussions at the Federal and State level will shape the future of the transportation delivery system. It will be necessary to watch for some of the following nationwide trends over the next several years.

New Technology

Wheels to Work Program

Wheels to Work includes the development and deployment of a mobile app to allow ride hailing-like operation of Hope Network's accessible vehicles. It would allow self-scheduling and more on-demand service. The app development is complete, and implementation has begun. Staff has been trained in the systems and software. Hope Network was prepared to launch a test in March 2020 with users from three local employers but that has been put on hold due to the COVID-19 pandemic. Once that rollout can be completed, full implementation will take place, followed by data collection and review. That may lead to software revisions. A final report will be completed at the end of the project.

Driverless Delivery Driverless Delivery

An autonomous lead robot and self-powered trailer that can deliver food, prescriptions, and services such as telemedicine to people who are homebound. Units will be controlled by remote operators. This project is complete. Bedestrian completed the build of their B1 and B2 autonomous delivery vehicles and the grant funding was fully expended. The vehicles were to be used to gather excess food from various buildings at the University of Michigan (U-M) and deliver it to community organizations feeding underserved communities. The project was to be tested at U-M, but testing was suspended after the first day due to the university closure for the COVID-19 pandemic. Bedestrian, the city of Ann Arbor and U-M planned to continue to pursue deployment of this food distribution but the COVID-19 outbreak and its impact on the future of in-person university meal programs and cafeterias has created a significant barrier to planning regarding that specific use case. Bedestrian, through its relationship developed with Aramark at U-M during this pilot, is exploring alternative innovations, including use cases for contactless food delivery (e.g., mobile vending) at the university and other facilities served by Aramark.

DDOT/SMART NoLo Battery Electric Buses and Associated Infrastructure

DDOT purchased up to two 40-foot battery electric buses. The awarded will support the purchase and installation of related charging infrastructure located on route and in a terminal. The project will introduce battery-electric revenue vehicles to DDOT's fleet and service area, allowing the transit agencies to understand the capital and operational impacts of this technology, and to develop a strategy for electric vehicles moving forward. Electric vehicles can help to reduce air pollutants and noise pollutions.

SMART purchased replacement buses. The service expansion helped to address the overall transportation needs for the communities by increasing the number of buses that run and the frequency in which passengers will be picked up.