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Executive Summary

The Ohio Department of Transportation (ODOT) is developing the long-range transportation plan, Access Ohio 2045 (AO45). AO45 will build on ODOT’s long-established foundation of strategic transportation investment which links to broader state economic, societal, and environmental goals and promotes public resource stewardship consistent with ODOT’s Mission, Vision, and Guiding Principles.

The primary purpose of this paper is to help “set the stage” for AO45 development by ensuring that the Federal Highway Administration’s (FHWA’s) requirements for consideration of environmental justice populations (low-income and minority) are met. A secondary purpose of the paper is to consider the transportation needs of Ohio’s other underserved populations—including older adults, individuals with disabilities, and individuals with limited English proficiency—and identifying opportunities for aligning transportation planning with meeting those needs.

ENVIRONMENTAL JUSTICE IN TRANSPORTATION PLANNING

Historic imbalances in the distribution of benefits and burdens as a result of federal actions led to the issuance of Executive Order 12898 in 1994 which required all Federal agencies to make achieving environmental justice part of their mission. Title VI of the Civil Rights Act of 1964 (Title VI) prohibits discrimination based on a person’s race, color, or national origin for any program or activity that receives Federal funding.

The FHWA approach to environmental justice involves identifying and addressing disproportionately high and adverse impacts of programs, policies, and activities on minority and low-income populations to achieve an equitable distribution of benefits.

KEY FINDINGS

This paper provides information about the current state of environmental justice practice in Ohio and highlights findings from a literature review of sources discussing the topic of environmental justice in transportation planning. The paper concludes with the following key findings:

- **Early public involvement is advantageous** - A comprehensive public involvement process that engages underserved populations early and often is essential to ensuring that the plan being developed will meet the needs of an increasingly diverse Ohio population. The AO45 planning process includes significant public involvement throughout plan development.

- **Balance benefits and burdens** - Transportation projects can result in both benefits (mobility, access, multimodal choices, etc.) and adverse impacts to the communities in which they are implemented. Achieving environmental justice requires balancing the potential benefits and burdens of the transportation system across the population, to the greatest extent possible.
Introduction

ABOUT THIS PAPER

ODOT is developing AO45, the long-range transportation plan for Ohio. AO45 will build on ODOT’s long established foundation of strategic transportation investment which links to broader state economic, societal, and environmental goals and promotes public resource stewardship consistent with ODOT’s Mission, Vision, and Guiding Principles. AO45 is an opportunity to further ODOT’s reputation as a national leader and prepare for the future to successfully navigate current and future challenges and to position the State for continued prosperity.

AO45 will provide ODOT with a strategic blueprint to manage the changes facing the transportation system—and serve as a reference point to align ODOT’s ongoing policies, plans, and programs. The blueprint involves the support of partners and builds a strategy fueled by data-driven, performance-based decisions—something ODOT has worked tirelessly to establish.

The primary purpose of this paper is to help “set the stage” for AO45 development by ensuring that FHWA’s requirements for consideration of environmental justice populations (low-income and minority) are met. A secondary purpose of the paper is to consider the transportation needs of Ohio’s other underserved populations—including older adults, individuals with disabilities, and individuals with limited English proficiency—and identifying opportunities for aligning transportation planning with meeting those needs.

Development of this paper involved a review of ODOT’s current environmental justice policies, a literature review of transportation-related environmental justice best practices, and discussions with representatives from ODOT and the Northeast Ohio Areawide Coordinating Agency.

WHAT IS ENVIRONMENTAL JUSTICE?

Executive Order 12898 (EO 12898) entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” requires each Federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” FHWA has identified three fundamental principles of environmental justice:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations;
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.
U.S. DOT Order 5610.2, Order to Address Environmental Justice in Minority Populations and Low-Income Populations (April 1997), describes the process for incorporating environmental justice principles into DOT programs, policies, and activities to ensure that the interests and well-being of minority and low-income populations are considered and addressed during transportation decision-making.

OTHER UNDERSERVED POPULATIONS

Title VI prohibits discrimination based on a person’s race, color, or national origin. This statute applies to any program or activity that receives Federal funding. As depicted in Figure 1, EO 12898 and Title VI do not provide protections to the same populations, although both apply to minority populations.

ODOT’s Office of Environmental Services (OES) has developed guidance for ensuring compliance with both EO 12898 and Title VI. The ODOT-OES Underserved Populations Guidance, developed in 2017 and revised in 2018, ensures compliance with EO 12898 and Title VI, and extends to consider the needs of other traditionally underserved populations throughout the project development process. Within this guidance, ODOT defines underserved populations as minorities, low-income, older adults, individuals with disabilities, and individuals with limited English proficiency. The guidance establishes the minimum level of effort necessary for meeting the legal requirements related to environmental justice for all ODOT projects but also notes that addressing the needs of underserved populations will be different for each project and will often require efforts beyond those minimum requirements.


FIGURE 1: PEOPLE PROTECTED BY EJ EXECUTIVE ORDER AND TITLE VI
Where Are We Today?

The recommended process for consideration of environmental justice in transportation planning was similar across most of the resources reviewed for this paper. Typically, a four-step process was recommended which included:

1. Identification of environmental justice populations;
2. Conducting public involvement targeting environmental justice populations and identify their transportation-related needs;
3. Assessing the potential for disproportionate burdens and benefits of the transportation system; and
4. Documenting the results of the environmental justice analysis.

The following sections provide more details about this process and describe the current state of practice for the consideration of environmental justice populations in Ohio.

IDENTIFYING ENVIRONMENTAL JUSTICE POPULATIONS

Generally, the first step to ensuring equity in transportation policy and decision-making is to gain an understanding of the specific populations who would be impacted. The level of detail necessary for this analysis and the process used to identify environmental justice populations varies depending on geography and scale of the transportation plan, program, or project. A preliminary review of publicly available data, specifically the most recent demographic data available from the U.S. Census Bureau, is a good starting point for determining the potential presence and location of environmental justice populations for local, regional, and statewide analyses. This review could be scaled to consider small geographical units (i.e. census blocks or block groups) for specific projects or larger geographical units (i.e. census tracts) for regional and statewide analysis. The review of demographic data should be supplemented with other available information, whenever possible, to gain a more thorough understanding of the populations living in the service area as well as the specific transportation-related needs of those populations. Supplementary data could include information collected from community groups and community leaders or public input provided through public involvement activities.

PUBLIC INVOLVEMENT AND IDENTIFYING NEEDS

Much of the literature related to equity in the transportation decision-making process draws a distinction between the minimum public involvement efforts required to satisfy legal requirements and the efforts that are needed to meaningfully address the needs of environmental justice populations. ODOT has developed a manual that details the legal requirements that must be met to ensure public involvement activities comply with applicable laws and regulations. The 2014 ODOT Public Involvement Manual also acknowledges that customary public involvement activities may not adequately engage underserved populations. The manual goes on to recommend “utilizing existing stakeholder networks” to reach underserved populations. Examples of potential networks include civic leaders, social service agencies, religious organizations, senior centers,
and transit providers. The manual also recommends conducting “specialized meetings” such as Stakeholder Advisory Committees, community meetings, or workshops/focus groups.

During May 2018, ODOT conducted a series of public meetings across Ohio to present information about the development of AO45 and to solicit feedback from the public. Meetings were held in Akron, Dayton, Toledo, Marietta, Cleveland, Columbus, Cincinnati, and South Point. At these meetings, many attendees commented on the specific transportation needs of some low-income Ohioans. A common theme among these comments was a need for increased mobility and access - whether through adding transit service to more remote, rural areas or by increasing the frequency, reliability, and number of multimodal options in urban areas.

“The implication of these collected findings is that different types of transportation infrastructure will be used at different rates by different groups. These differentials will affect the ratio of benefits and burdens that are experienced by each group. Thus, any effort to understand the impacts of a project, plan, or policy has to consider the demographics of existing and potential users as well as these effects over time and space.”

ASSESSING BENEFITS AND BURDENS

Achieving environmental justice requires balancing both the potential benefits and burdens of the transportation system across the population, to the greatest extent possible. Examples of environmental burdens related to transportation include air, soil, and noise pollution as well as congestion, safety risks, and barrier effects that can occur when transportation facilities divide or increase separation within and between communities. Improved accessibility to jobs, health care, education, community facilities, and social networks is the primary benefit of transportation infrastructure (Karner et al, 2018). Often, when practitioners think about environmental justice, there is a focus on minimizing the potential adverse effects and ensuring that they do not disproportionately impact traditionally underserved populations. However, it is important to also consider the distribution of benefits across the population. The following sections describe how the distribution of burdens and benefits is being assessed statewide within ODOT’s Statewide Transportation Improvement Program (STIP), regionally by metropolitan planning organizations (MPOs), and at the project level.

Statewide Analysis in the 2018-2021 STIP

AO45 is a policy document that does not identify specific projects. Environmental justice can be addressed in AO45 by considering how the strategies and measures identified in the plan would impact different groups. ODOT implements the goals and policies and strategies established in the statewide plan through its STIP. The STIP provides the best opportunity for ODOT to conduct an assessment of the statewide distribution of burdens and benefits across the transportation system and of the potential implications for environmental justice populations.

Each state is required to develop a STIP every four years. The current STIP developed by ODOT serves as the short-range planning program for Ohio’s transportation system for State Fiscal Years 2018 - 2021. ODOT included an analysis of the potential impacts of STIP projects on environmental justice populations in the 2018-2021 STIP document. The analysis identified target environmental justice census tracts with concentrations of low income and minority populations (see Figure 2).

“While Title VI and EJ concerns have most often been raised during project development, it is important to recognize that the law also applies equally to the processes and products of planning. The appropriate time for FTA and FHWA to ensure compliance with Title VI in the planning process is during...the approval of the STIP.”

Target environmental justice census tracts included those in which the minority population percentage exceeded the statewide average (17.4%) or the percentage of the population in poverty was greater than the statewide level (15.8%). ODOT’s analysis of disproportionately high and adverse impacts compared property acquisitions, project investments by cost, bridge project investments, and transit project investments in target environmental justice census tracts to statewide levels. Based on this analysis, ODOT did not identify a disproportionate burden on any targeted population in Ohio and concluded “that a reasonable distribution of benefits is scheduled to be made with this program of projects. This includes all projects, transit, maintenance and new construction.”

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FIGURE 2: TARGET ENVIRONMENTAL JUSTICE CENSUS TRACTS FOR MINORITY AND LOW-INCOME POPULATIONS
Regional Analysis and the Role of MPOs

There are 17 MPOs in Ohio that are charged with developing fiscally constrained long-range Transportation Plans and short-range Transportation Improvement Programs (TIPs) for Ohio’s metropolitan areas (see Figure 3). MPO Plans and TIPs must provide analysis and documentation that implementation of the transportation program would not disproportionately impact environmental justice populations.

The Northeast Ohio Areawide Coordinating Agency (NOACA) provided information about the process that the Cleveland-area MPO used to assess the distribution of potential burdens and benefits of its transportation program during development of the agency’s current TIP.

NOACA identified areas of environmental justice concern by analyzing U.S. Census data by Transportation/Traffic Analysis Zone (TAZ)\(^3\). This is similar to the environmental justice analysis approach used by Ohio’s other MPOs although there is some variation in the level of geography used for the analysis, ranging from census blocks groups to census tracts with TAZs being the most common geography used by the MPOs. For the NOACA analysis, TAZs with a minority population at or above either the regional average or the national average was highlighted as Minority TAZs. TAZs with a poverty rate at or above either the regional average or the national average was highlighted as Poverty TAZs (see Figure 4). NOACA then conducted an analysis of programmed projects in relation to each of the identified environmental justice areas of concern. According to this analysis, over half (approximately 55%) of the projects in the current TIP would be implemented within areas of environmental justice concern.

\(^3\) Agglomeration of census blocks that is smaller than a Census Tract.
In addition, the NOACA Board of Directors approved a policy in May 2017 that provides incentives for projects that would be implemented in the areas of environmental justice concern. Incentives for projects implemented in NOACA environmental justice areas include eligibility to apply for financial assistance for preliminary engineering, eligibility to apply for federal funds for right-of-way acquisition, and potential to use toll credits to reduce local match requirements.

**Project-level Analysis**

Project-level environmental justice analysis typically occurs during the environmental review process. To ensure compliance with the National Environmental Policy Act (NEPA), projects must be evaluated to determine if implementation would result in disproportionate adverse impacts to environmental justice populations. *ODOT-OES’ Underserved Populations Guidance* details the “minimum requirements” for conducting an environmental justice analysis by project type and complexity. In addition to considering low-income and minority populations protected under the environmental justice executive order, the process established in the Guidance extends to consider the needs of other traditionally underserved populations including older adults, individuals with disabilities, and individuals with limited English proficiency. The process includes:

1. Identifying underserved populations; and
2. Assessing impacts to underserved populations.

While the general process may be the same, the level of detail required in the analysis varies by project. For example, more complex projects with a higher potential for impacts to underserved populations require preparation of a more detailed analysis to be documented in an Underserved Populations Impact Analysis Report (UPIAR). The UPIAR is a document that is prepared to determine whether the project will have a disproportionately high and adverse effect to an environmental justice population, disparate impacts to a Title VI population, or impacts to any other underserved populations.
Where Are We Going?

DEMOGRAPHIC SHIFTS

An analysis of current and projected demographic data highlights several trends related to Ohio’s environmental justice and other underserved populations. Between now and 2045, there is expected to be an increase in the minority percentage of the state’s population and in the percentage of the state’s population that is over 65 years old. During the public involvement workshops held for AO45 during May 2018, ODOT received input from several attendees throughout the state that the rate of change in the minority and elderly populations could be even higher than projected. The potential for higher rates of growth in Ohio’s minority and elderly population are being addressed through the development of alternative futures which will be analyzed in AO45. An analysis of current data highlights regional disparities in income, disability, and poverty levels in Ohio, with a concentration of poverty and disabled populations noted in Ohio’s southeastern Appalachian counties. Literature reviewed during the development of this paper highlighted transit as a key transportation need for underserved populations. Based on the demographic analysis provided in the Demographics Report prepared for AO45 and summarized below, the need for access, mobility, and multimodal options will continue to be strong through 2045.

Increasing Diversity

A 10-point increase in the Ohio minority population percentage is anticipated between 2015 and 2045, from 19.3 percent to 29.7 percent. For this paper, minority is defined as non-White and/or of Hispanic or Latino origin. Urban counties currently have the largest minority population percentages. This trend is expected to continue with Franklin (Columbus), Hamilton (Cincinnati), and Cuyahoga (Cleveland) counties all projected to have majority-minority populations by 2045. Some of the anticipated growth in Ohio’s population will be due to immigration, emphasizing the need to effectively engage with limited English proficiency populations as part of ensuring environmental justice in the transportation planning process. In 2015, minorities in Ohio were more likely to use transportation alternatives to driving alone than non-minorities.

Regional Inequalities in Poverty and Disability Rates

Income and poverty disparities exist between Ohio’s urban, suburban, and rural counties as well as between the southeastern counties that make up Ohio’s portion of Appalachia and the rest of the state. In general, the highest income areas in the state are in a few suburban counties outside of Columbus, Cleveland, and Cincinnati. Incomes in the more rural counties in Ohio tend to be lower than in both the urban and suburban areas, particularly in southeastern Ohio where there is a concentrated area of ten contiguous counties that all have poverty rates over 20 percent (Highland, Adams, Pike, Scioto, Jackson, Vinton, Gallia, Meigs, Athens, and Morgan). Input provided during the May 2018 public involvement meetings for AO45 highlighted differences between Ohio’s agriculturally-oriented rural areas throughout much of the state and the

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5 U.S. Census Bureau, 2015 American Community Survey (ACS) 5-Year Estimates.
6 Ibid.
Appalachian rural portion of southeastern Ohio. The concentration of poverty and individuals with disabilities in rural, southeastern Ohio presents a unique challenge because rural areas typically have a more limited range of transportation options than urban and suburban areas and it can be more expensive to provide transit services to a population that is dispersed over a larger geographic area.

**Aging Population**

Between 2000 and 2015, the percentage of the U.S. population over age 65 increased from 12.4 percent to 14.1 percent. The nation’s older population is expected to continue to grow, with 21.8 percent of the population projected to be over age 65 in 2045. The greatest percentage increases of population over the age of 65 between 2015 and 2045 are expected to occur in suburban counties outside of Columbus (Delaware, Union, and Madison) and Cleveland (Geauga and Medina). Between 2015 and 2045, the median age of Ohioans is projected to increase from 39.4 to 40.5 years. A potential transportation-related impact of this shift is that older populations may be more likely to need alternatives to driving alone, including both fixed route and paratransit services.

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Findings and Future Direction

KEY FINDINGS

This paper provides information about the current state of environmental justice in Ohio’s transportation decision-making process, highlights findings from a literature review of sources discussing this topic and explores transportation implications of projected demographic trends for Ohio’s environmental justice and other underserved populations. Key findings are summarized below.

Early Public Involvement is Advantageous

The need for early, continuous, and meaningful public involvement was identified in several sources that were reviewed during the development of this paper (Karner and Marcantonio, 2017; Karner and Marcantonio, 2016; and Kragh, Nelson, and Groudine, 2017). Characteristics of meaningful public involvement can include:

- Encouraging early participation and engagement;
- A bottom-up, community-driven process; and
- Providing an opportunity for underserved populations to communicate their transportation needs.

ODOT’s current Public Involvement Manual includes recommendations for engaging underserved populations that are consistent with facilitating a more meaningful public involvement process. The manual recommends reaching out to underserved populations through stakeholder networks such as civic leaders, social service agencies, religious organizations, senior centers, and transit providers. The manual also recommends conducting “specialized meetings” such as Stakeholder Advisory Committees, community meetings, or workshops/focus groups. For these strategies to best address the needs of underserved populations, it will be important for the public involvement efforts to begin early in the planning or project development process. The AO45 planning process includes significant public involvement which began early and will continue through plan completion.

Balance Benefits and Burdens

Access to multimodal options is critical to several different groups of environmental justice and other underserved populations. This need may continue to grow due to projected demographic trends. An anticipated increase in the percentage of the Ohio population over age 65 could result in an increased need for multimodal options to serve the growing elderly population. There will also be a continued need for access to multimodal options in urban areas where the percentage of the population that are minority and low-income is above the statewide average.

Equitable transportation plans and policies should consider how potential benefits and burdens are likely to be distributed across the population. In ODOT’s previous statewide plan, the “Percent of EJ populations (e.g. zero-car households) with adequate access to employment centers” was one of the Critical Success Factors identified to measure success in achieving the goal of “Accessibility and Connectivity.” A consideration of the specific needs of environmental justice and other underserved populations as well as future distribution of benefits and burdens should also be considered during the development of goals and strategies for AO45.
AO45 sets the policy that is carried out in the STIP, which sets the short-term transportation program for the state that will have implications for environmental justice and other underserved populations. Following the May 2018 AO45 public meetings, ODOT worked with the AO45 Steering Committee to identify the following Transportation System Goal Areas: Safety, Reliability, Mobility/Access, Multimodal/Transit, and Preservation. Consideration of environmental justice and other underserved populations within each of these goal areas during AO45 development can ensure that the strategies and measures identified in the plan address the transportation needs of all Ohioans and balance the benefits and burdens of future transportation-decision making across the population.
Sources


