Federal Highway Administration
EJ and Public Involvement Resources

Environmental Justice Peer Exchange

October 22, 2019
Environmental Justice (EJ) at the FHWA means identifying and addressing disproportionately high and adverse effects of the agency's programs, policies, and activities on minority populations and low-income populations.

Guiding Principles

To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority or low-income populations.

To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority or low-income populations.
EJ Directives and Policy References

- Executive Order 12898 on EJ (1994)
- USDOT EJ Order 5610.2(a) (1997/2012)
- FHWA EJ Order 6640.23A (1998/2012)
- FHWA Guidance on EJ and NEPA (2011)
Environmental Justice Programmatic Activities

State and Regional Support
• AASHTO Center for Environmental Excellence and TRB Coordination (2021 Equity Conference)
• National Research/Case Studies
• Technical Assistance, Workshops, Webinars, and Peer Networks

Federal Coordination
• Collaboration Working Groups
• Best Practices and Resource Development
Websites
Environmental Justice

Environmental Justice, Title VI, Non-Discrimination, and Equity

Although Environmental Justice (EJ), Title VI, Non-Discrimination, and Equity are distinct elements, collectively they can contribute to the development of an equitable transportation system. These elements are regularly mistaken and used interchangeably, thus, making it essential to understand their differences.

EJ at FHWA focuses on identifying and addressing disproportionately high and adverse human health or environmental effects of the agency’s programs, policies, and activities on minority populations and low-income populations to achieve an equitable distribution of benefits and burdens. This objective is to be achieved, in part, by actively adhering to the principles and practices of both Title VI and the National Environmental Policy Act (NEPA) during the development and implementation of transportation activities. The classes covered by EJ vary slightly from those covered by Title VI and other nondiscrimination statutes, as depicted in Table 1.
Public Involvement/Public Participation

Public participation is an integral part of the transportation process which helps to ensure that decisions are made in consideration of and to benefit public needs and preferences. Early and continuous public involvement brings diverse viewpoints and values into the decision-making process. This process enables agencies to make better informed decisions through collaborative efforts and builds mutual understanding and trust between the agencies and the public they serve. Successful public participation is a continuous process, consisting of a series of activities and actions to both inform the public and stakeholders and to obtain input from them which influence decisions that affect their lives.

The public, in any one area or jurisdiction, may hold a diverse array of views and concerns on issues pertaining to their own specific transportation needs. Conducting meaningful public participation involves seeking public input at specific and key points in the decision-making process issues where such input has a real potential to help shape the final decision or set of actions.

Public participation activities provide more value when they are open, relevant, timely, and appropriate for the intended goal of the public involvement process. Providing a balanced approach with representation of all stakeholders and including measures to seek out and consider the needs of all stakeholders, especially those that are traditionally underserved by past and current transportation programs, facilities, or services.

To assist those who would like to improve public participation processes and strategies, this site provides links to relevant information and exemplary case studies and examples.

www.fhwa.dot.gov/planning/public_involvement/
https://www.fhwa.dot.gov/planning/public_involvement/vpi/
New Transportation Planning Capacity Building Website

https://www.planning.dot.gov/planning/topic_PI.aspx
Resources and Research
EJ Analysis in Transportation Planning and Programming

1. Providing Opportunities for Meaningful Public Involvement
2. Identifying EJ Populations
3. Understanding EJ Needs and Concerns
4. Assessing Benefits and Burdens of Plans and Programs
5. Assessing Whether Adverse Effects Are Disproportionately High
6. Deploying Strategies to Address Disproportionately High and Adverse Effects (Imbalances and Needs)
7. Best Practices
1.) Providing Opportunities for Meaningful Public Involvement

- Building Relationships
- Tailoring Public Involvement
- Measuring Effectiveness

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**Figure 1.** Student using the NJPTA On-Air activity. North Jersey Transportation Planning Authority. 2017. Plan 2045 Connection North Jersey, Public Outreach Appendix.

**Figure 2.** Location of flyers in relation to low-income communities and minority communities. Community Planning Association of Southwest Idaho. 2014. Communities in Motion 2040, Chapter 2: Public Participation and Involvement.

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### Tailoring Public Involvement

**Tools and Techniques**
- Innovative public involvement activities
- EJ-focused communication strategies
- Trusted community partners
- Convenient opportunities to provide input

**Examples**
- Community Planning Association Southwest Idaho
- Massachusetts DOT
- North Jersey Transportation Planning Authority
- Puget Sound Regional Council, WA
- Southern New Hampshire Planning Commission

### Measuring Effectiveness

**Tools and Techniques**
- Setting goals, targets, and measures
- Collecting qualitative and quantitative data on level and quality of participation
- Assessing performance

**Examples**
- Community Planning Association Southwest Idaho
- Fayetteville Area MPO, NC
- Minnesota DOT
- Puget Sound Regional Council, WA
- St. Lucie TPO, FL
2) Identifying EJ Populations

- Identifying High Concentrations of EJ Residents
- Dot-Density Mapping
- Understanding Demographic Change
- Customized Approaches

<table>
<thead>
<tr>
<th>Disadvantage Factor</th>
<th>% of Regional Population</th>
<th>Threshold Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>54%</td>
<td>70%</td>
</tr>
<tr>
<td>Low Income (&lt;200% of Poverty)</td>
<td>23%</td>
<td>30%</td>
</tr>
<tr>
<td>Limited English Proficiency</td>
<td>9%</td>
<td>20%</td>
</tr>
<tr>
<td>Zero-Vehicle Households</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Seniors Aged 75 and Over</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td>Population with a Disability</td>
<td>18%</td>
<td>25%</td>
</tr>
<tr>
<td>Single-Parent Families</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>Rent Burdened Households</td>
<td>10%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Concentrations of Disadvantaged Populations
Metropolitan Transportation Commission, San Francisco

FHWA does not recommend using threshold concentrations to designate EJ and non-EJ areas. Concentration levels may be used as an indicator but should not be used to create a bright-line rule. Rather, agencies should use a combination of quantitative and qualitative approaches.

Buggies are common forms of transportation among Amish communities in Pennsylvania. Lancaster County Transportation Coordinating Committee.

3) Understanding EJ Needs and Concerns

• Informing Needs Assessment with EJ Input
• Regional Scale Needs
• Exposure to Environmental Risks
• Mapping Transit Access and Gaps
• Neighborhood Scale Needs

<table>
<thead>
<tr>
<th>Polk County TPO Neighborhood Mobility Audit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walking Access Index and Biking Access Index</strong></td>
</tr>
<tr>
<td><strong>Transit Connectivity Index</strong></td>
</tr>
<tr>
<td><strong>Gaps Index (Percent of roadway network with no sidewalk)</strong></td>
</tr>
<tr>
<td><strong>Barrier Index</strong></td>
</tr>
<tr>
<td><strong>Mobility Index</strong></td>
</tr>
</tbody>
</table>
4) Assessing Benefits and Burdens of Plans and Programs

- Assessing Investment Distribution

- Differentiating by Project Type, Per Capita, and Usage

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Lead Agency</th>
<th>Description</th>
<th>Total Cost</th>
<th>% EJ Funding</th>
<th>EJ Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>23rd Avenue</td>
<td>Council Bluffs</td>
<td>4-Lane Divided with LTLs</td>
<td>$13,664,000</td>
<td>10%</td>
<td>$1,366,400</td>
</tr>
<tr>
<td>South Expressway Reconstruction - Phase 1</td>
<td>Council Bluffs</td>
<td>Reconstruction of Existing Roadway</td>
<td>$5,781,500</td>
<td>50%</td>
<td>$2,890,750</td>
</tr>
<tr>
<td>South Expressway Reconstruction - Phase 2</td>
<td>Council Bluffs</td>
<td>Reconstruction of Existing Roadway</td>
<td>$5,119,000</td>
<td>50%</td>
<td>$2,559,500</td>
</tr>
<tr>
<td>River Rd. Trail</td>
<td>Council Bluffs</td>
<td>Construction of multi-use recreational trail</td>
<td>$307,500</td>
<td>100%</td>
<td>$307,500</td>
</tr>
<tr>
<td>Iowa Riverfront Trail III</td>
<td>Council Bluffs</td>
<td>Construction of multi-use recreational trail</td>
<td>$286,259</td>
<td>81%</td>
<td>$23,145</td>
</tr>
<tr>
<td>Iowa 92 Resurfacing</td>
<td>Iowa DOT</td>
<td>Resurfacing</td>
<td>$1,379,976</td>
<td>78%</td>
<td>$1,216,781</td>
</tr>
</tbody>
</table>

Investment Distribution in EJ Areas. Metropolitan Area Planning Agency LRTP 2040.

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Total Projects</th>
<th>Percent of Fed Funding</th>
<th>Percent of Population</th>
<th>Funding (1,000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EJ Funding</td>
</tr>
<tr>
<td>Non-Environmental Justice Projects</td>
<td>$719,742,615</td>
<td>45%</td>
<td>76%</td>
<td>$0</td>
</tr>
<tr>
<td>Environmental Justice Projects</td>
<td>$892,051,385</td>
<td>55%</td>
<td>24%</td>
<td>$634,343,211</td>
</tr>
<tr>
<td>Total</td>
<td>$1,611,794,000</td>
<td>100%</td>
<td>100%</td>
<td>$634,343,211</td>
</tr>
</tbody>
</table>

Project-Basis Funding Analysis Metropolitan Area Planning Agency LRTP 2040.
4) Assessing Benefits and Burdens of Plans and Programs

- Planning-level Project Assessments
- Comparing Outcomes Regionally
  - Geographic-based Outcomes
  - Population-weighted Outcomes

Typical Accessibility/Mobility Indicators

- Vehicle hours of delay
- Vehicle hours traveled
- Vehicle delays per capita
- Congested VMT during peak hours
- Person miles traveled
- Person hours traveled
- Person hours of delay
- Number of jobs within x miles or x minutes by mode
- Number of destinations within x miles or x minutes by mode*
- Population (number or percent) that can reach destinations within x minutes by mode*

* Destinations = college, hospital, major retail, employment centers, grocery stores, etc.
5) Assessing Whether Adverse Effects Are Disproportionately High

- Qualitative Approaches
- Quantifying Disproportionality Using Location Quotients

<table>
<thead>
<tr>
<th>Location Quotient</th>
<th>EJ Pop in Study Area/ Total Pop in Study Area</th>
<th>EJ Pop in Reference Area/ Total Pop in Reference Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>7,691/20,367</td>
<td>248,882/1,052,567</td>
</tr>
<tr>
<td>Below Poverty</td>
<td>3,538/20,367</td>
<td>123,396/1,052,567</td>
</tr>
</tbody>
</table>

5) Deploying Strategies to Address Disproportionately High and Adverse Effects (Imbalances and Needs)

- Technical Assistance
- Partnerships
- EJ Representatives on Committees
- Overarching Policy Goal
- Specific Goals and Measures
- Studies and Activities
- Evaluation Criteria
  - Unverifiable EJ benefits
  - Verifiable EJ benefits

Hattiesburg-Petal-Forrest-Lamar, Mississippi MPO: GOAL: Minimize disparity between EJ communities and other areas regarding the ---
- percentage of households spending 45% of income on housing/transportation;
- average travel time to work;
- travel time to primary employment centers, medical and educational destinations;
- exposure to arterial traffic and associated air and noise pollution;
- bicycle and pedestrian crashes; and
- Increase ratio of sidewalk and multi-use path length to roadway length in EJ areas and in locations that are within a half mile of fixed-route transit service.

### Evaluation Criteria

<table>
<thead>
<tr>
<th>Points</th>
<th>Choose one</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>The project avoids creating new negative environmental health impacts or physical barriers for these populations.</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>The project improves environmental health for three or more of these populations.</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>The project improves environmental health for two of these populations.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>The project improves environmental health for one of these populations.</td>
</tr>
</tbody>
</table>

### Evaluation Criteria

<table>
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<th>Description</th>
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</thead>
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<tr>
<td>4</td>
<td></td>
<td>The project improves access to an area with a high ranking for opportunity (as defined by the Growing Transit Communities opportunity mapping).</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>The project improves access to an area with a low ranking for opportunity (as defined by the Growing Transit Communities opportunity mapping).</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>The project improves access to an area with a high ranking for opportunity (as defined by the Growing Transit Communities opportunity mapping).</td>
</tr>
</tbody>
</table>

Social Equity and Access to Opportunity Measures, Puget Sound Regional Council
Overarching Best Practices

• Integrating EJ Analyses with Plans and Programs
  ▪ Approaches for Integrating EJ Analyses at the Statewide Scale

• Using EJ Analyses to Support Collaborative Decision-making
  ▪ Planning and Environmental Linkages (PEL)
  ▪ Community Impact Assessment
  ▪ Context Sensitive Solutions and Design (CSS/D)
Addressing Changing Demographics in EJ Analysis

I. Context, Goals and Objectives

II. Changing Demographics: Trends and Forecasts

III. State of the Practice & Notable Practices

IV. Key Takeaways

V. Notable Practice Example Case Studies
   1. Mid-Ohio Regional Planning Commission
   2. Metropolitan Transportation Commission
   3. Atlanta Regional Commission
   4. Florida Department of Transportation
   5. Metro (Portland, OR)
Context and Research Questions

Context

• Many cities and regions are becoming majority-minority.
• Real estate market pressures are inducing intra-metropolitan shifts of low-income and minority populations.
• Substantial relative growth of minority populations in small urban and rural areas from 1990 - 2010.

Overarching Research Questions

• How does the nature of demographic change vary across geographies?
• What is the state of the practice in conducting EJ analysis in communities undergoing rapid demographic change?
• What are best practices for considering changing demographics when conducting an EJ analysis and engaging affected populations across the spectrum of transportation decision-making?
Demographic Trends and Forecasts

Demographic Trends

- U.S. population growth: 50% between 1970 - 2009
  - Concentrated in the South and the West
- White population: 80% in 1980; 63% today; 44% by 2060
- Substantial growth in LEP populations driven by immigration
- Greatest Relative change in Small Urban/Rural Areas
- Poverty rates for minority groups have declined, but are still higher than for white households
- EJ populations living in central city or inner suburban areas are increasingly being displaced by real estate market pressures

Analyzed absolute and relative change at the state, county and metro levels (1990 – 2000 – 2010):

- Minority
- Poverty
- LEP
Demographic Change Maps

Minority Population Absolute Change: 2000-2010

Minority Population Percent Change: 2000-2010

Data Sources: IPUMS, American FactFinder
Trends and Forecasts

Percent Minority by County, 2010

People of Color
- < 20%
- 20 - 40%
- 40 - 60%
- 60 - 80%
- 80 - 100%

Source: US Census

Percent Minority by County, 2050

Source: PolicyLink
State of the Practice Highlight: Engaging EJ Communities

Gathering data directly from communities improves understanding of community change dynamics.

Many agencies are:

• Using online tools, such as websites and social media, to communicate with the public
• Engaging in regular evaluations and adjustments of their engagement processes.
• Partnering with community organizations to obtain a better sense of community needs, communicate decision-making issues to the community, and gather information from the community.
• Establishing advisory committees to solicit citizen feedback.
## State of the Practice and Notable Practices: Agency Highlights

<table>
<thead>
<tr>
<th>State or MPO</th>
<th>Notable Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bend MPO (Oregon)</td>
<td>Joint funding and outreach effort with City of Bend to improve engagement with the area’s growing Hispanic communities</td>
</tr>
<tr>
<td>Georgia DOT</td>
<td>Convenes a citizens committee that provides input and feedback beyond the scope and duration of an individual project</td>
</tr>
<tr>
<td>Greater Dalton MPO</td>
<td>Used Spanish-language media as an avenue for their outreach and “four-factor analysis”</td>
</tr>
<tr>
<td>Houston-Galveston Area Council</td>
<td>Surveyed underserved households to better understand their transportation system priorities</td>
</tr>
<tr>
<td>Kentucky Transportation Cabinet</td>
<td>Community impact assessment of a planned investment led to acquisition of affordable rental units</td>
</tr>
<tr>
<td>Little Rock MPO</td>
<td>Connects with local Spanish-speaking communities and accounts for how that feedback is used in decision-making</td>
</tr>
<tr>
<td>Memphis MPO</td>
<td>Encouraged participation through bus ads, YouTube videos featuring local mayors and partnership with local libraries</td>
</tr>
<tr>
<td>Nevada DOT</td>
<td>Presents at meetings of stakeholder communities rather than asking these groups to attend separate meetings</td>
</tr>
<tr>
<td>San Diego Association of Governments</td>
<td>Uses a shift-share approach to forecast growth at the census tract scale using a variety of inputs</td>
</tr>
<tr>
<td>Southern California Assn. of Governments</td>
<td>Public workshops feature computer models that visualize possible policy impacts at the parcel level</td>
</tr>
</tbody>
</table>
Questions to Consider When Implementing Environmental Justice

Local Trends

- Is your community addressing the issue of demographic change when engaging the public?
- Is your community aware of demographic changes to date that may have already shifted community composition?
- Do recent trends suggest the community is likely to shift over the lifecycle of a transportation action?

Impacts of Planned Investments

- Is your community considering how planned investments could result in local demographic change?
- Has your community developed a process to evaluate impacts of investments on neighborhood change?
- Do investments address the needs of EJ populations and are there scenarios considering community change?
New case studies!

- Innovative strategies to meaningfully involve underserved populations in transportation decision making

- Approaches and notable practices for addressing challenges and barriers to engaging the following population groups:
  - Minority
  - Low-income
  - LEP
  - Rural
Training Resources
NHI Training Resources

- Fundamentals of EJ, WBT (Course #142074)
- EJ Analysis, Instructor-led (Course #142075)
- Basics of Public Involvement in Transportation Decision Making, WBT (Course #142077)
- Under Development Title VI Analysis, ILT

www.nhi.fhwa.dot.gov
CTPP Training Resources

Training (Census Transportation Planning Products (CTPP))

• CTPP Applications E-learning Module [http://ctpp.training.transportation.org/]
• Basic Transportation Analysis on CTPP web-based software (Tutorial videos): [https://ctpp.transportation.org/training-resources/tutorial-videos/]
• Census Transportation Data In-Person Training
Additional Courses and Technical Assistance

FHWA Resource Center
www.fhwa.dot.gov/resourcecenter

FTA/NTI EJ Courses
http://www.ntionline.com/ courses/
For More Information

- **Environmental Justice**
  http://www.fhwa.dot.gov/environment/environmental_justice

- **FHWA Public Involvement (Transportation Planning)**
  https://www.fhwa.dot.gov/planning/public_involvement/

- **NEPA and Transportation Decision Making; Public Involvement and its Role in Project Development**
  https://www.environment.fhwa.dot.gov/projdev/tdmpi_p_d.asp

- **Transportation Planning Capacity Building – Public Involvement Case Studies**
  https://www.planning.dot.gov/focus_caseStudies.aspx

- **Resource Center**
  https://www.fhwa.dot.gov/resourcecenter/teams/environment/
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