Addressing Changing Demographics in Environmental Justice Analysis, State of Practice

TRB Annual Meeting

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Federal Highway Administration
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Introduction: Core Project Team

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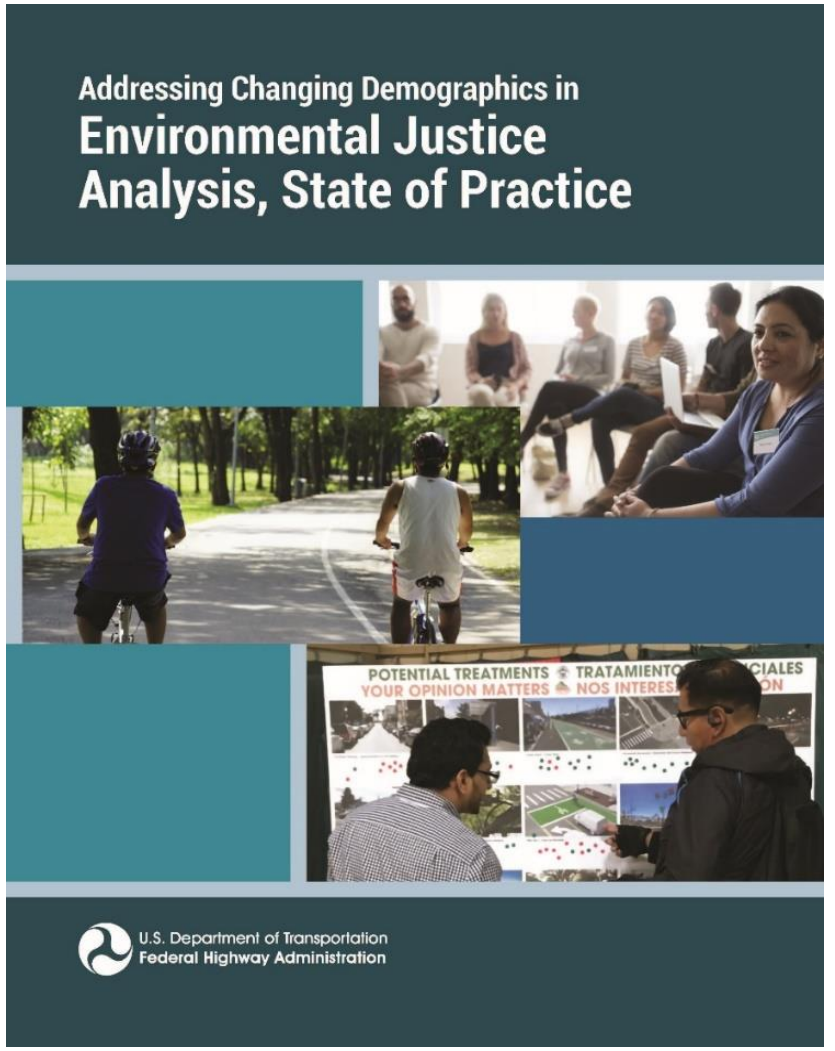

Report FHWA–HEP–19–022: available at FHWA > Environment > EJ > Publications

Agenda

I. **Context, Goals and Objectives**

II. **Changing Demographics: Trends and Forecasts**

III. **State of the Practice & Notable Practices**

IV. **Key Takeaways and Practitioner Considerations**

V. **Notable Practice Example Case Studies**

- I. Metropolitan Transportation Commission
- II. Metro (Portland, OR)
- III. Atlanta Regional Commission
- IV. Florida Department of Transportation

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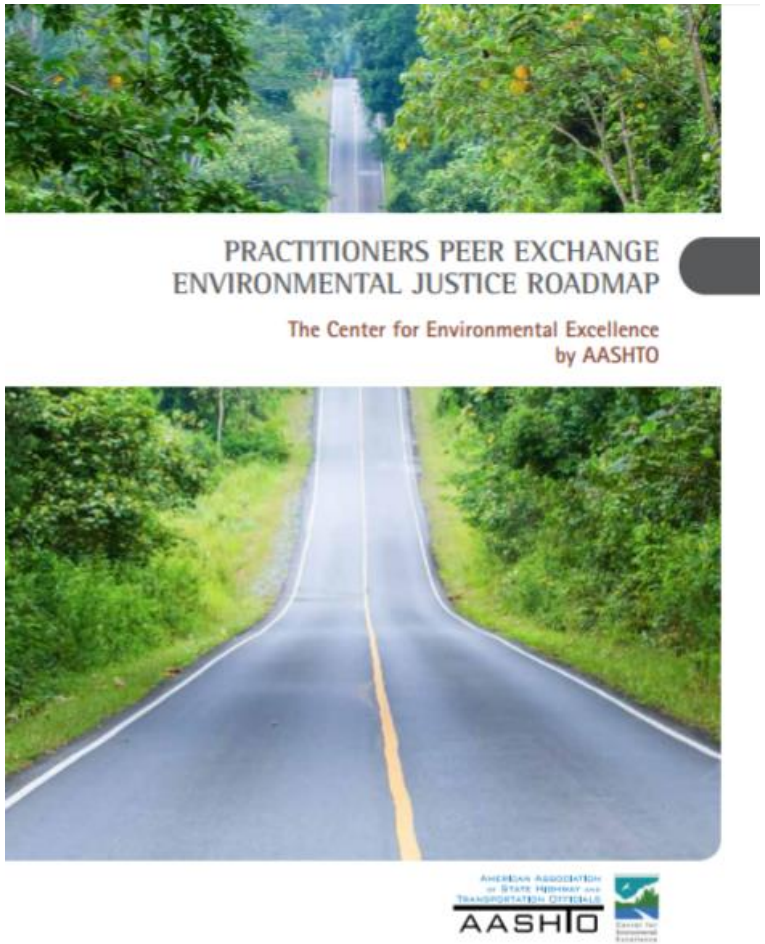
Context

- Many cities and regions are becoming majority-minority.
- Real estate market pressures are inducing intra-metropolitan shifts of EJ populations.
- Substantial relative growth of minority populations in small urban and rural areas from 1990 - 2010.
- AASHTO *Practitioner's Peer Exchange EJ Roadmap* (Nov. 2016) identified research need.



Source: AASHTO

Goals and Objectives

Primary Goals

- Improve understanding of the nature and magnitude of demographic change
- Highlight approaches to adapt the EJ analysis process to these conditions

Objectives

- Analyze national demographic trends and forecasts (state- and county-level)
- Document the state of practice/notable practices for considerations of demographic change in EJ
- Provide case studies of five notable agency practices

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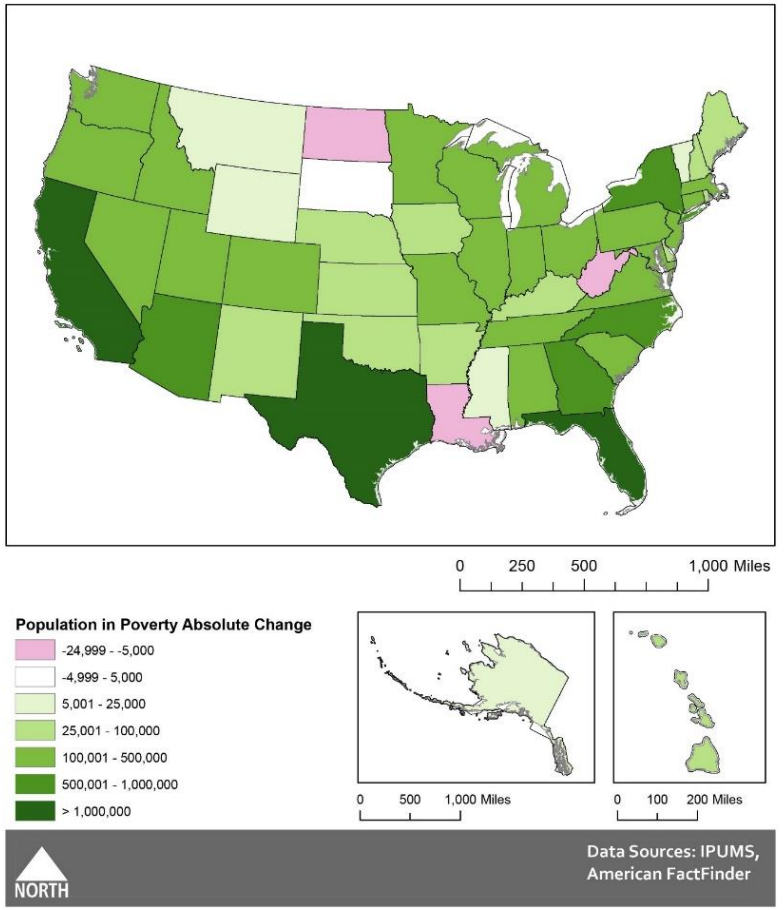
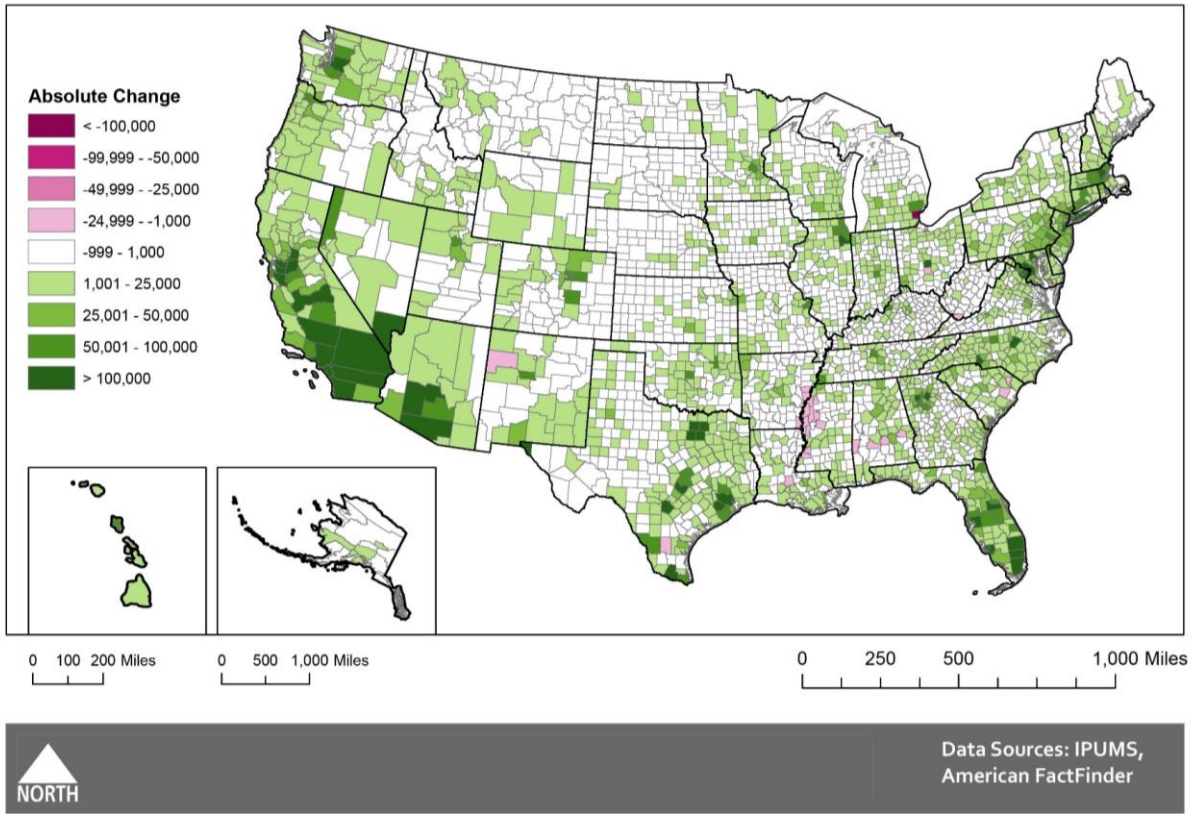
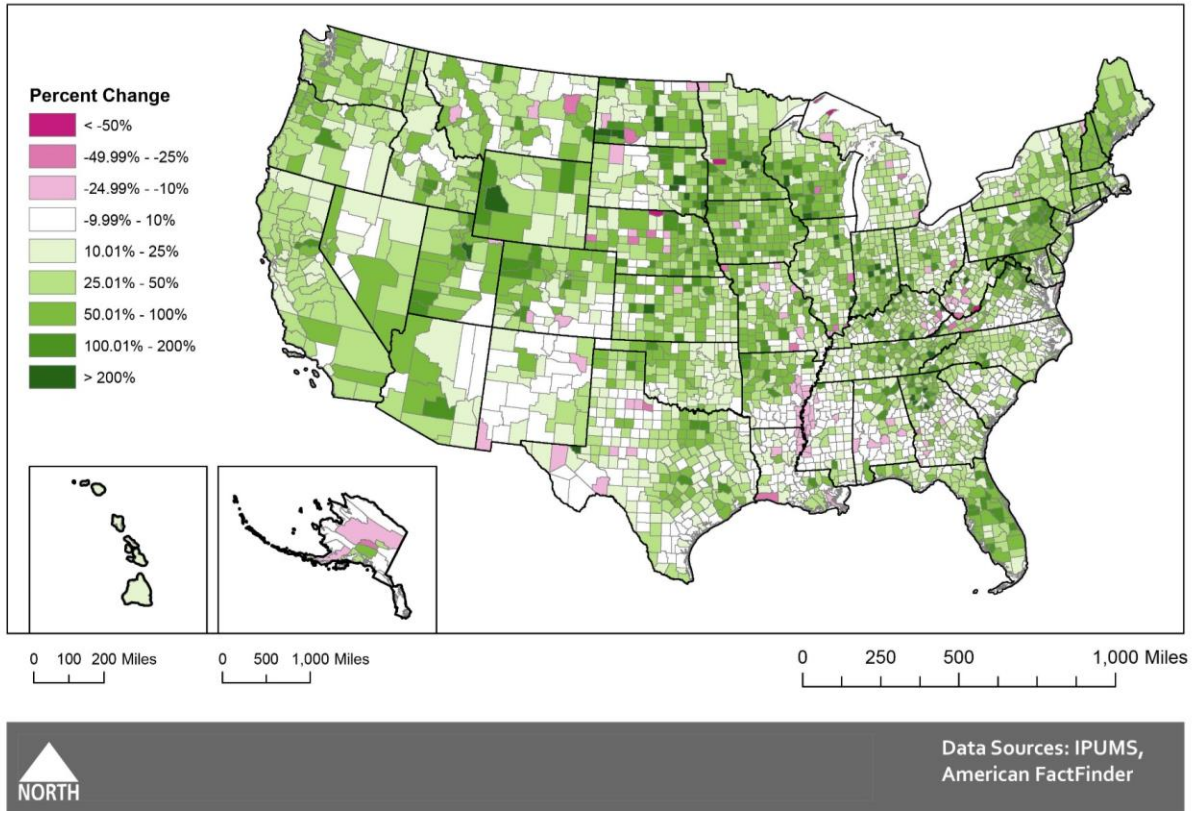
Demographic Trends and Forecasts

- White (Non-Hispanic) population: 80% in 1980; 63% today; 44% by 2060
- Substantial growth in LEP populations driven by immigration
- Greatest relative change in small/urban 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



Example Demographic Change Map





Analyzed absolute and relative change at the state, county and metro levels: Minority, LEP, and Poverty.

State of the Practice and Notable Practices: Highlights

- **Demographic Forecasting**
- **EJ Analysis Methods**
- **Engaging EJ Communities**
- **Agency Practices**

State of the Practice Highlight: Forecasting

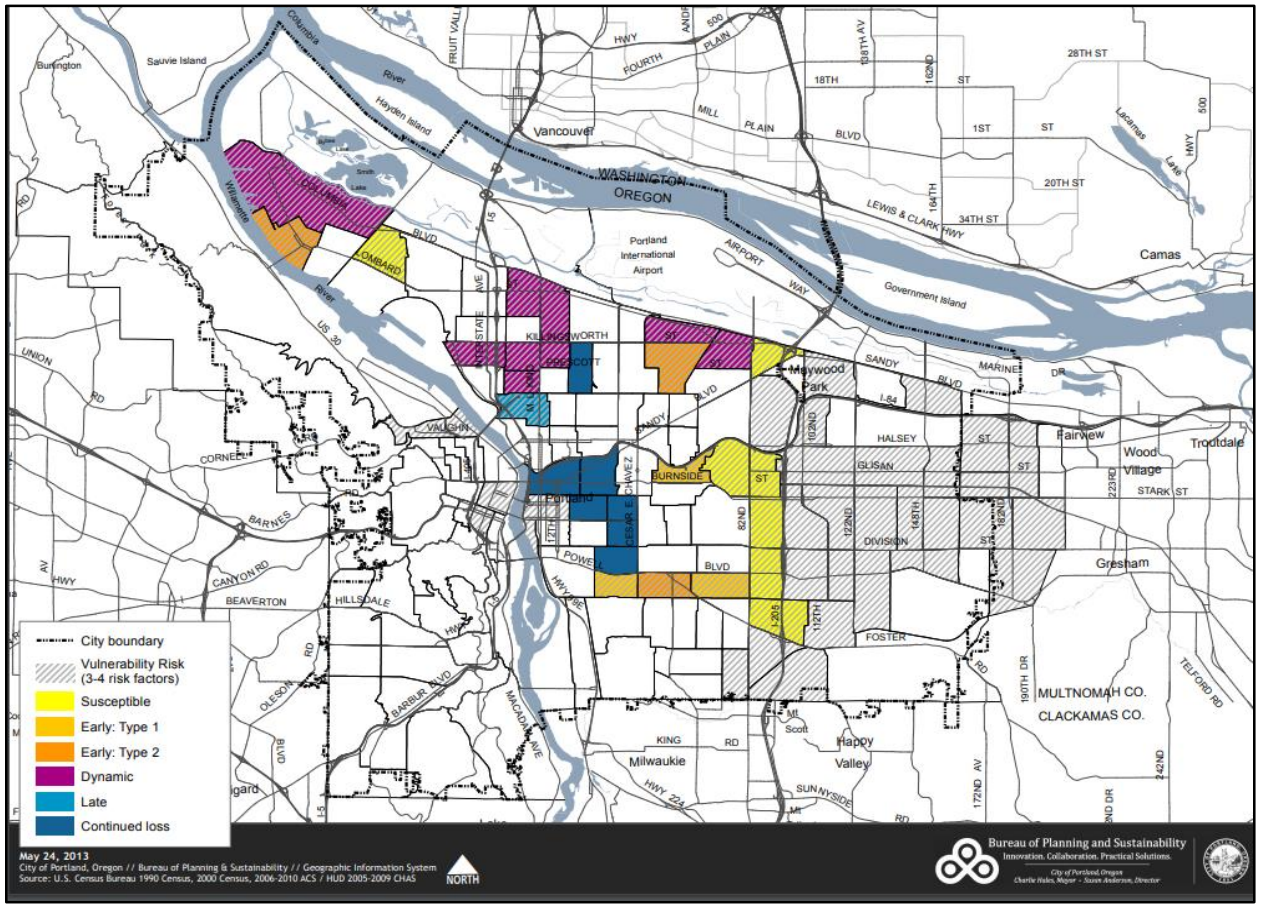
- **Three types of models used to forecast future demographics:**
  - Trend extrapolation
  - Cohort component
  - Detailed urban structural models

- **Challenges to long-range forecasting:**
  - Race categories can change over time
  - Migration flows depend on social and macroeconomic events
  - Difficulty in predicting fertility and death rates

- **No region actively attempts to forecast displacement of groups by race or ethnicity**
  - Typically forecast future race/ethnic breakdown using current breakdowns

State of the Practice Highlight: EJ Analysis Methods

- Binary and non-binary approaches
- Displacement risk mapping
  - Metro and MTC
- Shorter-term equity analysis for long-range modeling



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.

Key Takeaways for Practitioners and Decision Makers

- Population change dynamics can be nuanced and complex
- This study found a lack of EJ analysis approaches designed to explicitly address demographic change
- This study highlighted practices that can improve an agency's ability to predict community change and EJ impacts that may accompany this change in affected areas.
- Accurate, complete and accessible demographic data is key to understanding demographic change in EJ and potential for adverse effects.

Key Takeaways: A Few Questions to Consider When Implementing EJ

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 plan or investment?
- If it will change, how will you address that at later decision points?

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?

Notable Practice Case Studies

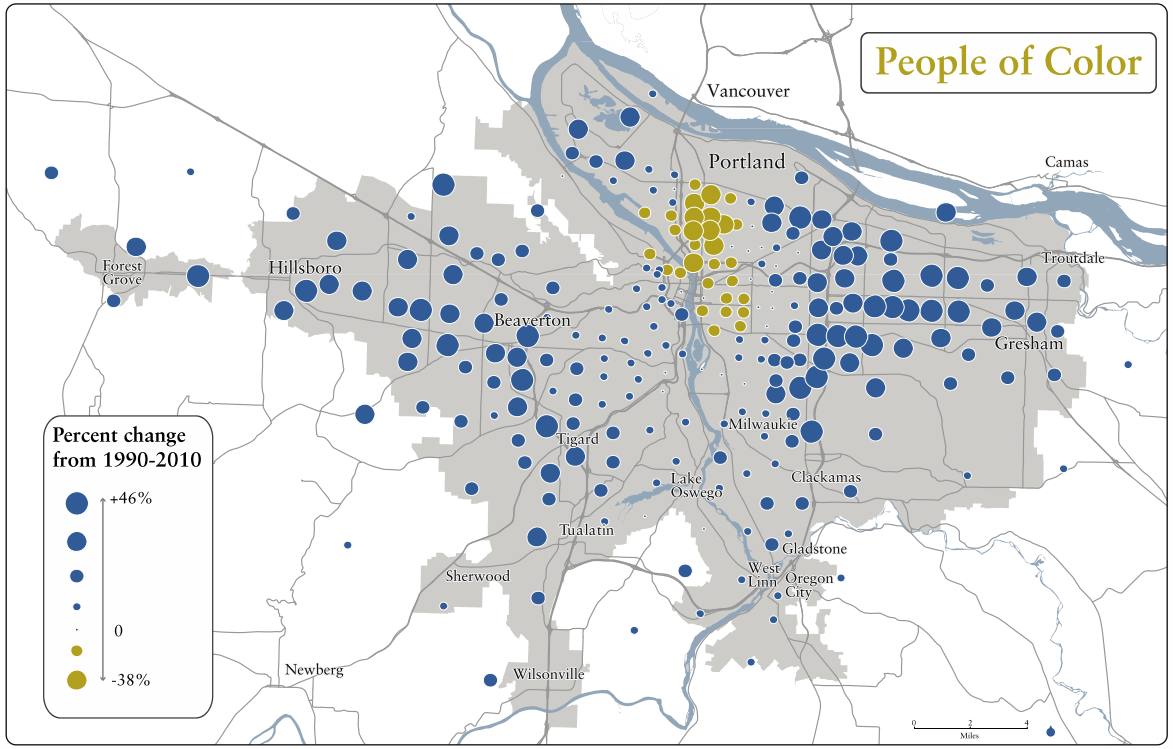
Case Studies

I. Metro (Portland, Oregon)
II. Metropolitan Transportation Commission
III. Atlanta Regional Commission
IV. Florida Department of Transportation

Metro (Portland, Oregon)

METRO
Key Challenges

- Concerns across the Portland metropolitan region regarding displacement of low-income and/or minority communities
- Rising housing costs in central locations have displaced low-income and/or minority people eastward
    - Displacement is a top concern among local advocates
- In East Portland, minority populations growing while white population decreased between 2000-2010
- Similar trends in West side of region



METRO – “Interim year” Equity Analysis of Regional Plan
Problem Statement and Objectives

- **Changing community demographics affect the accuracy of long-range forecasts and models**
- **<u>Objective:</u> under the existing limitations, design a method to evaluate the long-range transportation plan while addressing the concern around changing community demographics and accuracy of projections**

METRO – “Interim year” Equity Analysis of Regional Plan
Method of Analysis

- **Equity Work Group**
  - Defined the EJ analysis measures
  - Define transportation disadvantaged communities
- **Determining size and location of transportation disadvantaged communities now and in the future for equity analysis**
  - Metro forecasted population at TAZ scale assumes similar race/ethnicity profile to today
  - “Interim” evaluation period at year 10 (2027) proposed with no change in race/ethnicity profile

METRO – “Interim year” Equity Analysis of Regional Plan
Method of Analysis

Portion of 2018 RTP Investments included in the interim model run

	10-Year Strategy (2018-2027)	Financially Constrained RTP (2018-2040)
Amount of investment	$6.8B	$15.4B
Share of total 2018 RTP Investment	43%	100%
Number of projects	416	814

METRO: Displacement Forecasting Scenario
Problem Statement and Objective

- **Forecasting practice typically projects race and ethnic profiles using current day profiles, placing them onto future population growth**
  - Avoid modeling intra-metropolitan shifts
- **Objective: Better understand the dynamics of community displacement within forecasting systems to try to predict patterns of displacement to assist housing planners in understanding potential housing and neighborhood change**

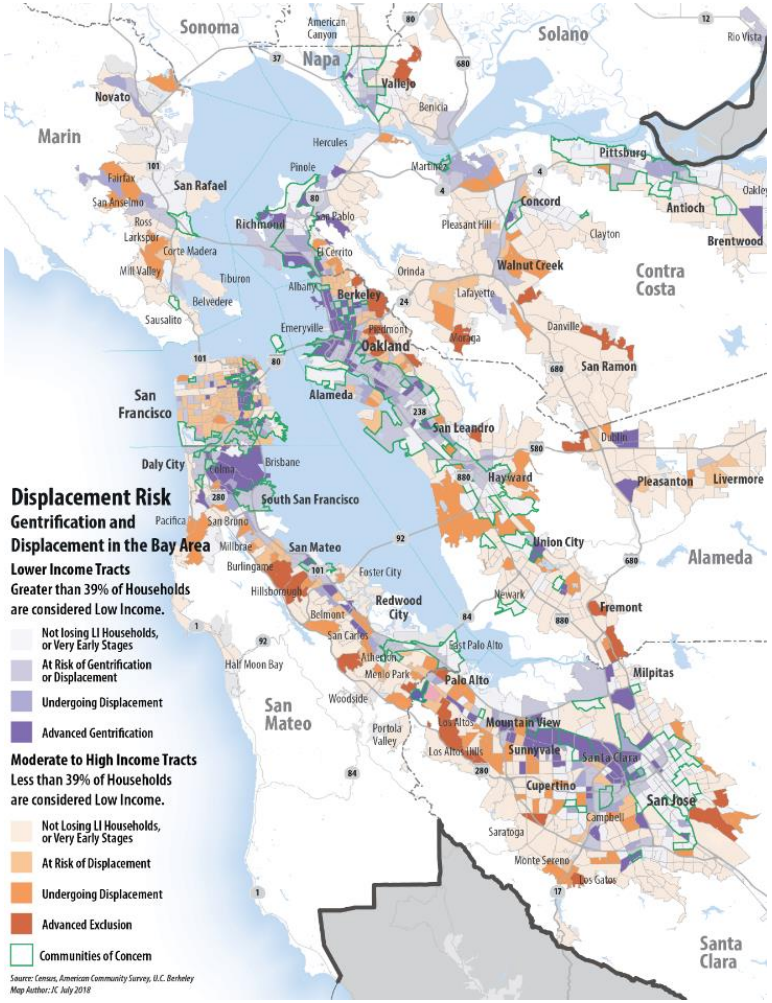
METRO: Displacement Forecasting Scenario
Method of Analysis

- **Projection scenarios carried out by race and ethnicities at smaller geographies than Metro area**
- **Matrix Scaling Approach/ Iterative Proportional Fitting (IPF)**
  - Project to 2060
  - Scenarios of racial concentrations and growth / intra-metro migrations
    - »“Status quo county trend”
    - »Faster share of minorities shifting outward toward fringes
    - »Minority shift to urban fringe and white “flight” into central city
    - »Metro area “captures” proportionally higher share of minority population growth
- **Alternative demographic forecasting can help illuminate potential regional changes**
  - Could be used to design policies to address potential displacement before it occurs
  - Could help advocates and other stakeholders understand potential intra-metro dynamics

Metropolitan Transportation Commission (MTC) – San Francisco Bay Area

Metropolitan Transportation Commission
Key Challenges and Objective

- **Rising housing costs and decreasing affordability**
- **2000: 19 percent of renter households severely rent burdened**
  - 2010-2014 ACS: 26 percent
- **Lack of housing supply, especially near transit and/or jobs**
- **Spatial mismatch between jobs and housing locations**
- **Inadequate public funding to provide new/preserve existing affordable units**
- **Congestion and increased desirability of central neighborhoods causing pressure**
- **Fear that transportation investments exacerbate displacement pressures**
- **<u>Objective</u>: Evaluate long-range plans for their potential to decrease or increase displacement risk**



Metropolitan Transportation Commission
Method of Analysis – Plan Bay Area 2040 (2017)

- **Geographies of displacement concern**
  - Priority Development Areas (PDA) – higher-density, walkable and mixed-use communities
  - Transit Priority Areas (TPA) – half-mile buffer surrounding high-capacity transit stations (bus, rail, ferry)
  - High Opportunity Areas (HOA) – areas with strong education and work opportunities
- **Calculation of displacement risk**
  - Estimation of the share of rent-burdened households in census tracts with PDA, TPA, HOA investment
  - Compare this share between Communities of Concern (EJ) tracts and remaining tracts
- **Results**
  - A significant share of rent-burdened households live in areas of displacement potential (PDA, TPA, HOA) – therefore displacement risk is currently high, especially in Communities of Concern tracts
  - The regional plan scenarios do not reduce that risk

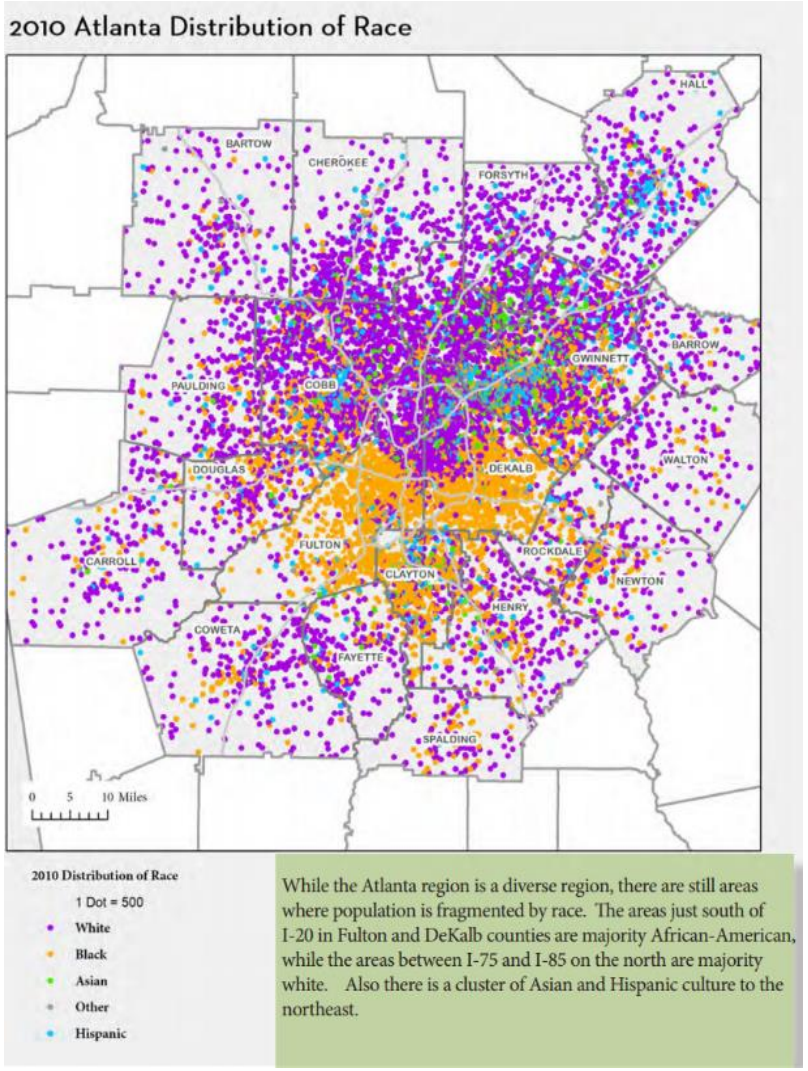
Metropolitan Transportation Commission
Method of Analysis – Plan Bay Area 2050

- **Next regional plan equity analysis will build on the 2017 efforts**
- **Currently undergoing the "Horizons" planning exercise**
  - Transportation, Housing, Economic Development and Resilience
- **Different future scenarios are being tested to address displacement and housing shortage, such as:**
  - Allow a Greater Mix of Housing Types and Densities in Transit Rich Areas and High Resource Areas
  - Increasing Renter Protections
  - Fund Affordable Housing Preservation and Production from a range of sources
  - Require 10% to 20% of New Housing to Be Affordable
- **Preliminary results:**
  - Renter protections reduce displacement risk in the short term but did not have strong effects in the long term due to tenant turn-over
  - Increasing the stock of permanently affordable deed-restricted housing were more effective for the long term

Atlanta Regional Commission (ARC)

Atlanta Regional Commission:
Key Challenges and Objective

- **Significant recent population growth, rates 1990-2010:**
  - Black Residents: 39%
  - Latino Residents: 102%
  - Asian & Pacific Islander Residents: 86%
  - Native American Residents: 32%
  - Mixed/Other identifying Residents: 72%
- **Movement back into dense, central areas by white and higher-income suburban households**
- **Highest nationwide increase in suburban poverty rate since 2000**
  - Concentrated in southwest and southeast of Atlanta proper
  - High poverty neighborhoods: 88% minority residents
- **Forecasts can be out of date or not reflective of local or regional plans**
- **Objective: Improve ARC forecasts and better prepare local jurisdictions for transportation and land development planning and demographic change**



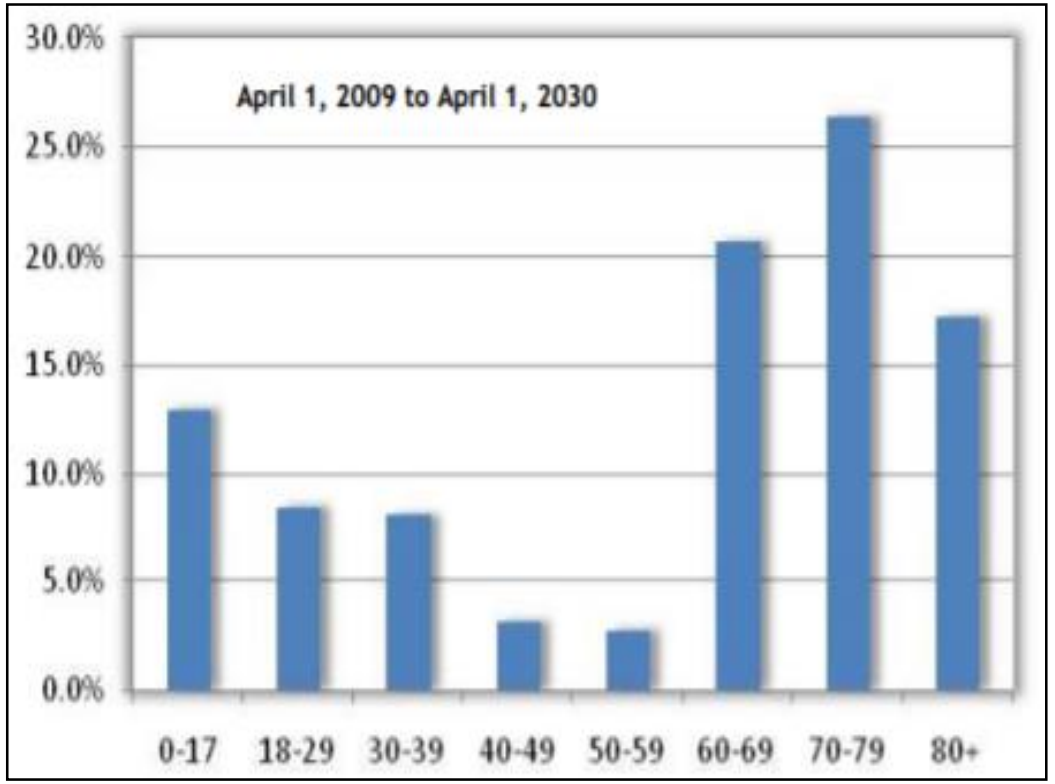
Atlanta Regional Commission:
Method of Analysis

- **“Small Area Outreach” process between ARC and local jurisdictions**
  - ARC becomes aware of trends, plans, and growth at local level
  - Local jurisdictions understand larger trends, plans, investments and forecasts throughout metro region and how other decisions across the metro impact their jurisdiction
  - Meet every three years with local jurisdictions

Florida Department of Transportation (FDOT)

Florida Department of Transportation:
Key Challenges and Objective

- **Third most populous state since 2014**
  - Continued growth, primarily amongst elderly
- **Significant growth of Hispanic population projected**
- **Southern Florida experiencing most growth**
- **Late agency involvement or discovered/uncovered environmental issues can cause project delays in the review process**
- **<u>Objective:</u> reduce delays in transportation decision making, share information between public agencies, consultants and other stakeholders, and improve demographic trend data to more accurately monitor change in sensitive populations**



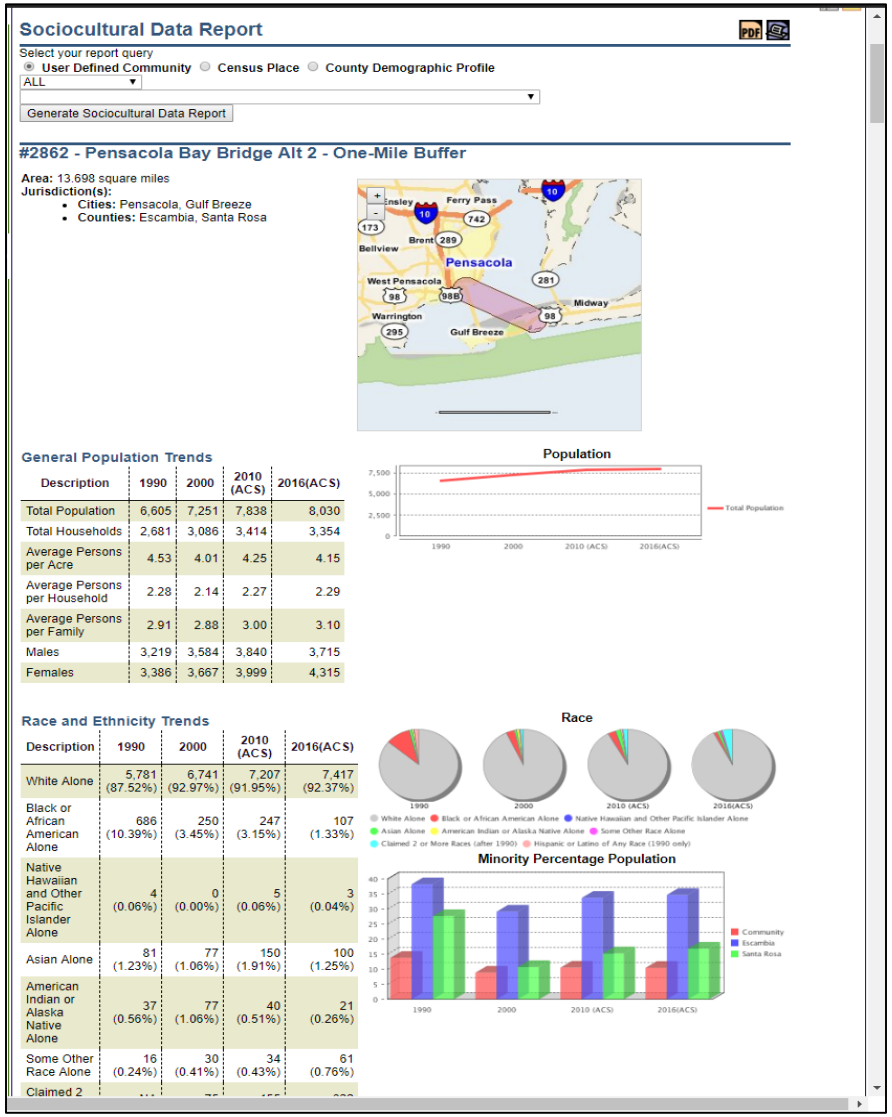
Projected population growth by age group, 2009–2030 (©Florida Legislature Office of Economic Development and Demographic Research, n.d.).

Florida Department of Transportation:
Multi-Stage Decision-Making Process

- **Florida DOT established a multi-stage decision-making process for transportation projects**
  - Spatial analysis tool updated during each phase of the review process
- **Collaborative approach between transportation, land use, and environmental resource planning within:**
  - 27 MPOs within the State of Florida
  - 7 FDOT districts plus Florida's Turnpike
  - 6 Tribal governments
  - Publics – local governments, affected communities, business owners
- **Efficient Transportation Decision-making (ETDM) framework:**
  - Project review process facilitated through Environmental Screening Tool (EST)
  - Demographic Analysis conducted through these beginning phases of project proposal and planning to be updated at project milestones

Florida Department of Transportation:
Method of Analysis

- **Sociocultural Data Report (SDR)**
  - Compiles historic demographic information
  - Inventories existing community-oriented facilities
- **Sociocultural Effects Evaluation steps:**
  - Review Project Information
  - Define Study Area
  - Prepare Community Information
  - Evaluate Sociocultural Effects
  - Identify Solutions to Project Impacts
  - Document Results
- **Publicly available online with involvement and input capabilities**
  - Environmental Technical Advisory Team Members (state and federal resource agencies) can review and comment online.



Florida DOT's Sociocultural Data Report: a tool within the Efficient Transportation Decision-making Portal (©Florida Department of Transportation. n.d.).

Thank You!