



Board Report

File #: 2018-0819, File Type: Plan

Agenda Number: 18.

PLANNING AND PROGRAMMING COMMITTEE JUNE 19, 2019

SUBJECT: LONG RANGE TRANSPORTATION PLAN UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the Long Range Transportation Plan (LRTP) Update, including the following informational items:

- A. Draft Baseline Understanding Framework; and
- B. Draft Values Framework.

ISSUE

This status report on the development of the LRTP Update includes a Draft Baseline Understanding Framework (Attachment A, with appendices in Attachment B), which provides a preliminary analysis of existing Los Angeles County conditions and communities as a foundation for the LRTP's analysis of its forty-year horizon; and it also includes a Draft Values Framework (Attachment C), which addresses performance-based planning. The performance measures include equity metrics for the evaluation of the current transportation system and future transportation investments.

DISCUSSION

Background

In September 2017, the LRTP Update Work Plan was presented to the Metro Board (Legistar File No. 2017-0548); it included a scope of work that has distinct chapters for development and timelines for key deliverables to the Board. In March 2018, the Board was presented the Orientation and Context framework (Legistar File No. 2018-0003). In January 2019, the Board received a Public Engagement Summary Report (Phase 1), and a Draft Mobility Plan to Access Opportunity Framework (Legistar File No. 2018-0622).

Draft Baseline Understanding Framework

The attached Draft Baseline Understanding Framework includes the following information about the existing transportation system and Metro stakeholders, which will be further developed in the completed draft LRTP:

- Travel Demand Model analysis of current travel patterns and other research for the existing system;
- Socio-demographic information and trends about the communities Metro serves; and
- Partner agency information, including strategic efforts and related plans.

Demographic Forecast Adjustments

The Baseline for the LRTP update has demographic forecast adjustments from the last LRTP. Specifically, the 2020 LRTP baseline has approximately 800,000 fewer residents in the population and 680,000 fewer jobs throughout the County than was forecast in the 2009 LRTP. The 2009 LRTP projections were based on the 2004 Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP). Those forecasts were adjusted in SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), following the recession. SCAG's 2020 RTP/SCS forecasts a population increase of approximately 1,600,000 and employment increase of 700,000 by 2045, which is an addition of more than the current population of San Diego.

Research is ongoing and will continue in these areas until the LRTP Update is complete.

Draft Values Framework

The Values Framework is designed to establish objectives for the decision-making process and provide performance measures to evaluate progress toward those objectives. The Values Framework will speak to the entire LRTP and the objectives will advance the goals in Vision 2028.

The attached Draft Values Framework includes the following elements, which will be further developed in the completed draft LRTP:

- Discussion of applicable values and guiding principles;
- Plan objectives based on goals;
- Performance measures;
- Equity specific performance; and
- Scenario testing.

Addressing Equity

The LRTP Update began with Equity as a guiding theme, and the commitment was confirmed when the Metro Board adopted the Equity Platform in February 2018. To evaluate areas most in need of equity throughout the County, the Values Framework examines the correlations between various demographic factors and opportunity gaps. The resulting "Equity Focus Communities" (EFCs) are identified to measure/track future equity impacts from a transportation perspective. The EFCs and the related equity-specific performance measures will help indicate specific outcomes and benefits of LRTP investments within the EFCs.

The Metro Travel Demand Model, used to assess the transportation system baseline, is always being updated. It will be adjusted for a variety of sensitivity tests and alternatives scenarios to help inform the LRTP development. It will evaluate the scenario test performance, as well as help forecast the performance of planned investments. Other data sources for the draft LRTP performance measures are listed in Attachment C (p. 16-20).

EQUITY PLATFORM

The LRTP Baseline Understanding Framework addresses the following two pillars of the Platform:

Define & Measure - Baseline Understanding Framework examines current countywide conditions to prepare for future growth and investments. This information includes distribution of the population and access, or lack thereof, to resources and opportunities. The Values Framework utilizes EFCs to highlight populations in LA County that face greater barriers to opportunity. In so doing, Metro can measure the progress over time in closing these gaps through its partnerships, policies and programs.

Listen & Learn - Metro will continue to engage stakeholders about their priorities for the LRTP Update in Public Outreach Phase 2 to help shape the objectives in the Values chapter. This outreach is distinct from the equity-listening conducted at the Policy Advisory Council (PAC), and through PAC Equity Working Group. The data and risk correlations discussed in these frameworks regarding equity was evaluated in consultation with academia and partner agencies.

DETERMINATION OF SAFETY IMPACT

This report has no impact on safety because no action results from this receive and file report.

FINANCIAL IMPACT

This item has no fiscal impact to the agency because no action results from this receive and file report.

Impact to Budget

Activities associated with completing the LRTP update are budgeted in the current fiscal year and are within budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The LRTP will advance all five goals of Vision 2028 because it is foundational to this update and is specifically called upon to implement performance measures for system improvement. An assessment of the current system baseline (Attachment A) is an essential preliminary step to planning for system improvement.

ALTERNATIVES CONSIDERED

A detailed baseline discussion is necessary for the LRTP update process to be comprehensive and have a subsequent valid performance analysis, as part of the future technical work to be performed as part of the LRTP Update process. Similarly, a Values Framework, with performance validation, is essential to accurately evaluate the needs and priorities of the region. This basic methodological approach is required to meet certain state and federal requirements, necessary for Metro to receive state and federal funds. This performance based approach is also a component of the Board adopted Vision 2028. Therefore, no alternative was considered.

NEXT STEPS

The Baseline and Values sections of the LRTP will continue to be revised and completed during the development of the full LRTP Update, along with the sections for future projects, policies and operational plans. The LRTP Update is scheduled to be completed by the end of fiscal year 2020, which generally aligns with SCAG's 2020 RTP/SCS update. Close coordination of the LRTP development and SCAG's RTP/SCS is critical to ensure the inclusion of all funded Metro projects and programs in determining the attainment of federal and state air quality mandates.

All pending chapters regarding future plans to build, fund and operate the system will be aligned with Vision 2028 goals and actions. Once completed, the full LRTP draft will be presented for Board adoption. However, the LRTP Update process remains flexible to address any Board initiatives, including any outcomes from Twenty-eight by '28. The LRTP is a necessary technical planning document that transparently tells the long-term story of Metro's priorities and how it intends to achieve those.

ATTACHMENTS

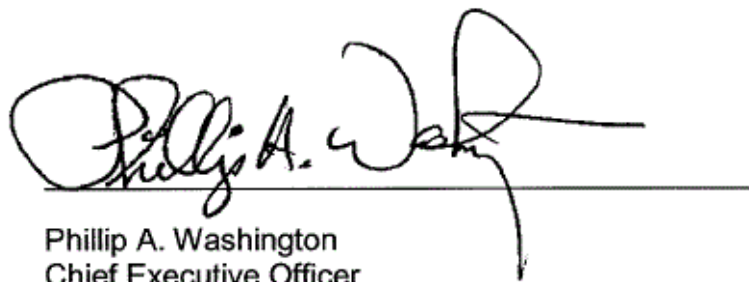
Attachment A - Draft Baseline Understanding Framework

Attachment B - Baseline Technical Appendices

Attachment C - Draft Values Framework

Prepared by: Kalieh Honish, EO, Countywide Planning & Development, (213) 922-7109
Manjeet Ranu, SEO, Countywide Planning & Development, (213) 418-3157
Mark Yamarone, DEO, Countywide Planning & Development, (213) 418-3452
Rena Lum, Senior Director, Countywide Planning & Development, (213) 922-6963

Reviewed by: Laurie Lombardi, Interim Chief Planning Officer, (213) 418-3251



Phillip A. Washington
Chief Executive Officer

LONG RANGE TRANSPORTATION PLAN

DRAFT - BASELINE UNDERSTANDING

FRAMEWORK

3.1 Understanding Our Communities

1. Who are our communities?

How do we define our communities?

This section provides baseline year data (2017) divided into demographics, social, and geographic information. The section discusses what constitutes a community and how best to serve them by identifying their needs.

Social

- What creates community?
 - Community spaces and (cultural) historic establishments
 - Connected activities
 - Community based organizations

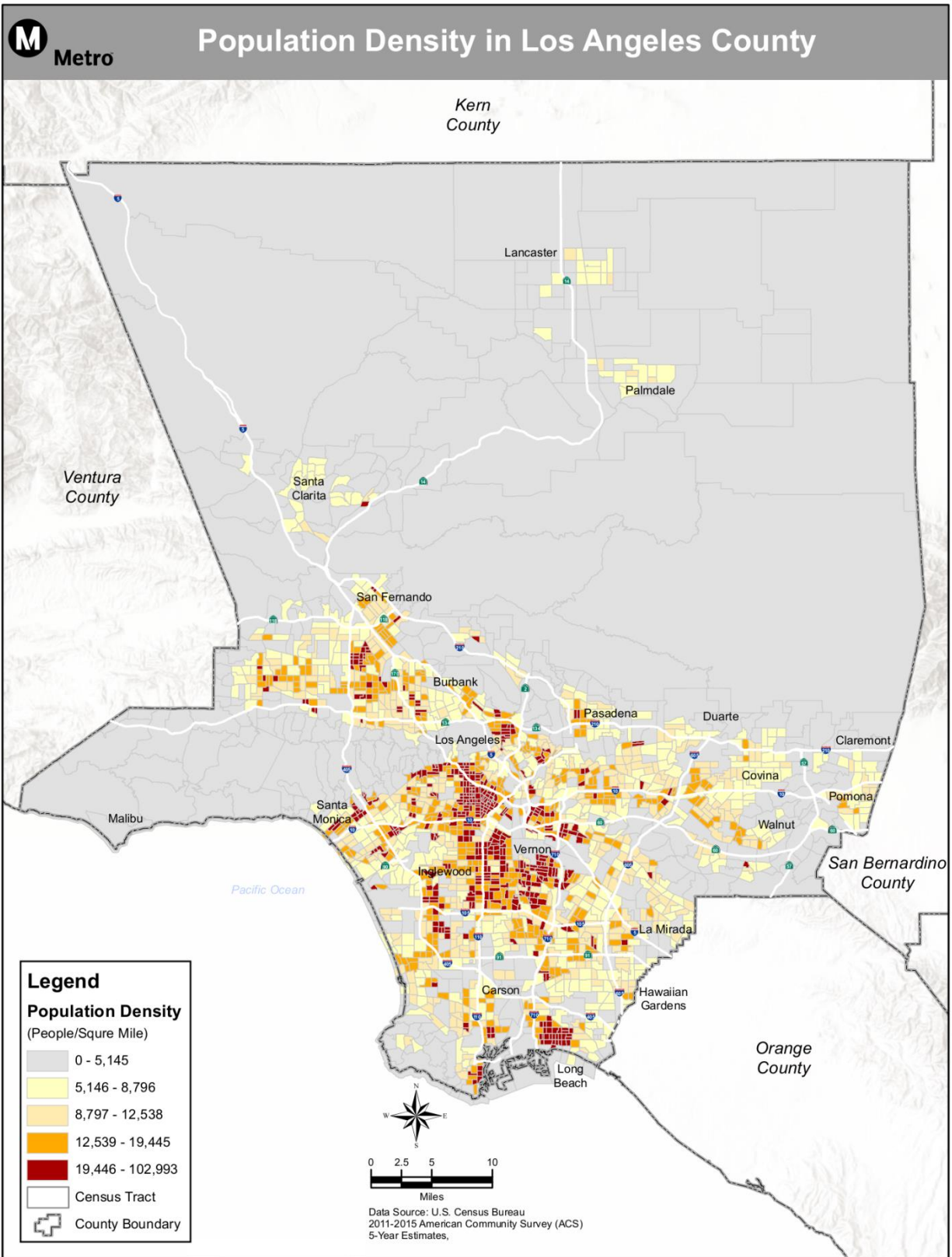
Geographic

- How do we examine communities?
 - Blocks
 - Neighborhoods and community planning areas
 - Cities
 - Subregions
 - County

Demographics

- Los Angeles County Demographics
 - Most populous county in the US, but density varies (Figure 3-1)
 - Ethnically diverse, i.e., majority minority population (Figure 3-2)
 - Non-English prevalence (Figure 3-3)
 - Other Demographic Details
- Economic Conditions
 - Federal Poverty Line is a national guideline (\$25,750 for 4-person household 2019)
 - Poverty must be adjusted in LA County for area housing & cost of living factors
 - 200% Federal Poverty (\$37,750 for 3-people family size, \$48,500 for 4-people family size, weighted average poverty threshold in 2015, Figure 3-4)
 - Severely Rent Burdened is part of the State housing crisis (Figure 3-5)

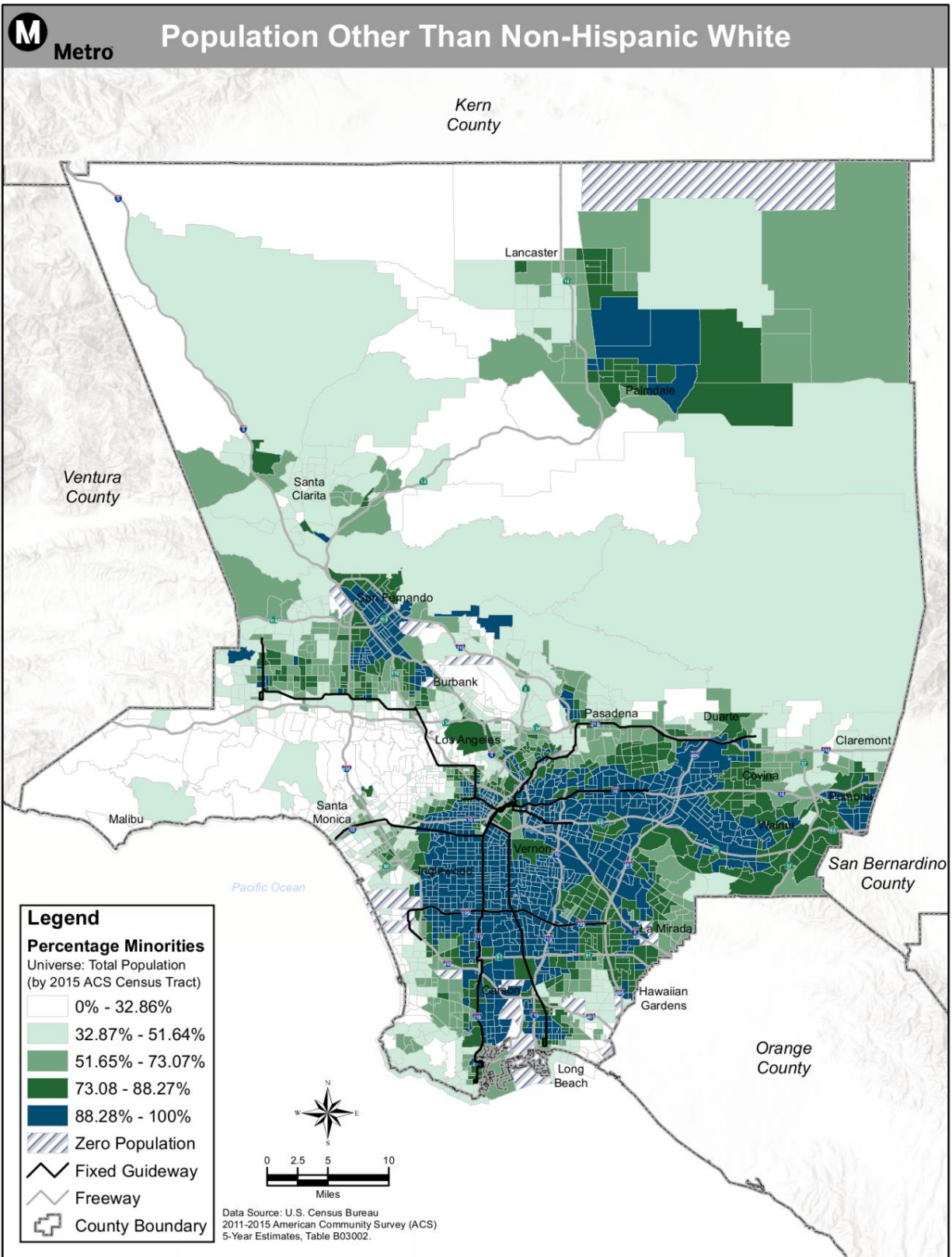
Figure 3-1. Population Density (2015)



Map Produced By Countywide Planning and Development, LACMTA, January, 2018
 Thomas Bros. Data Used With Permission

P:\Jobs3\Y17011_SocialEquityPopulations\MXD\Population_Density_Quantile.mxd

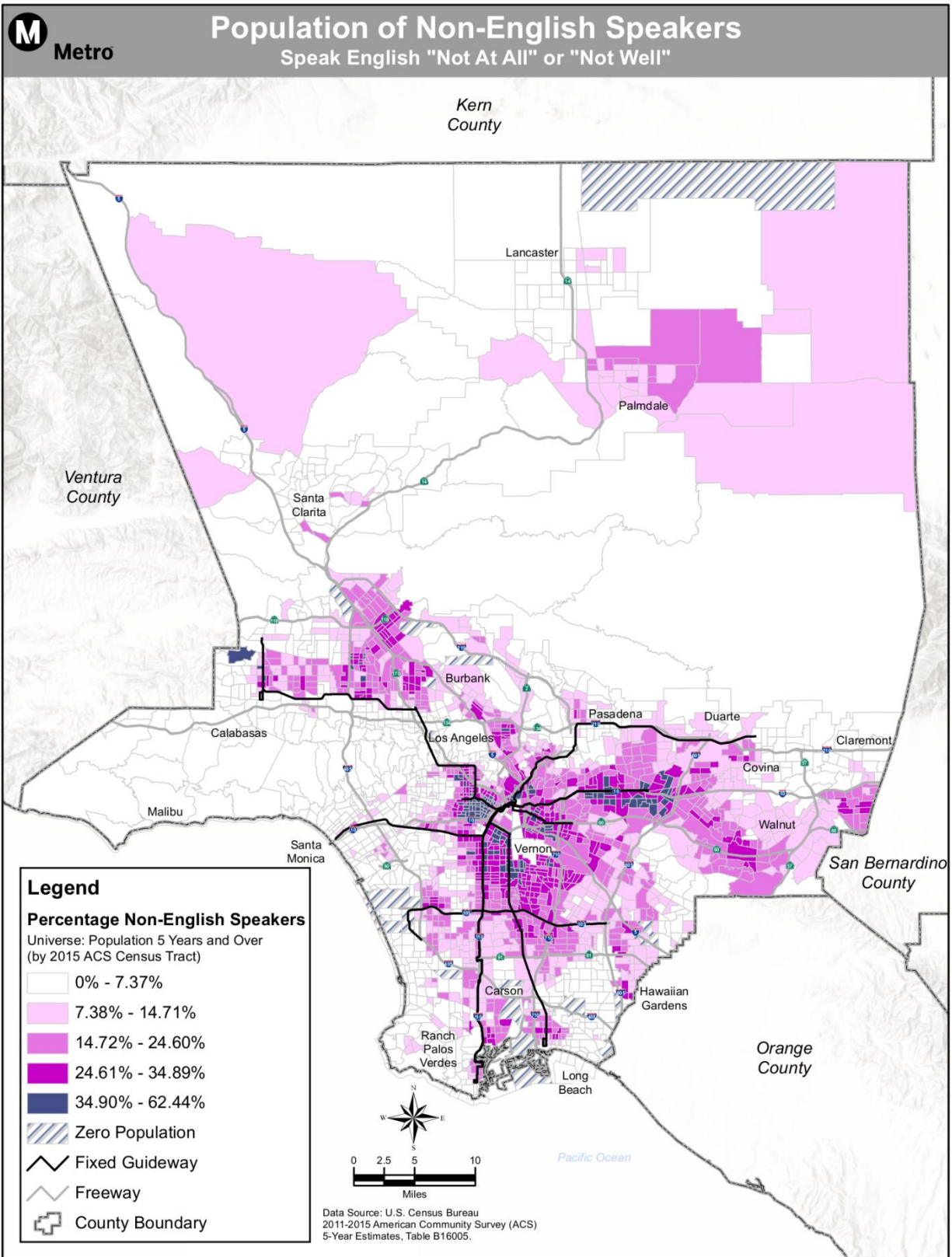
Figure 3-2. Majority Minority Population (2015)



Map Produced By Countywide Planning and Development, LACMTA, November, 2017
 Thomas Bros. Data Used With Permission

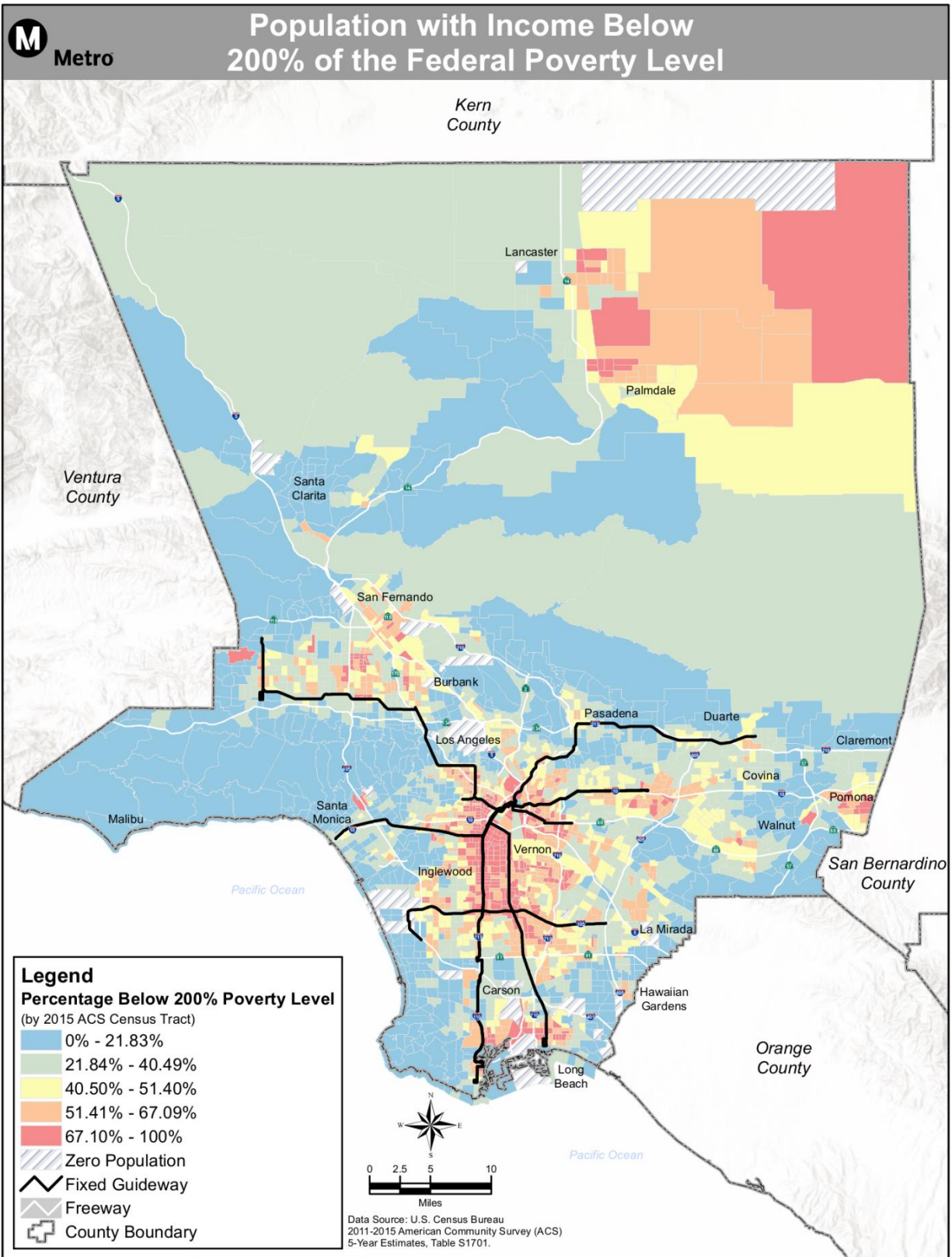
P:\Jobs3\Y17011_SocialEquityPopulations\MXD\Race_Ethnicity_Modified_Natural_Break.mxd

Figure 3-3. Non-English Speaking Population (2015)



Map Produced By Countywide Planning and Development, LACMTA, November, 2017 P:\Jobs3\Y17011_SocialEquityPopulations\MXD\English_Proficiency_NotAtAll_NotWell_Modified_Natural_Break.mxd
Thomas Bros. Data Used With Permission

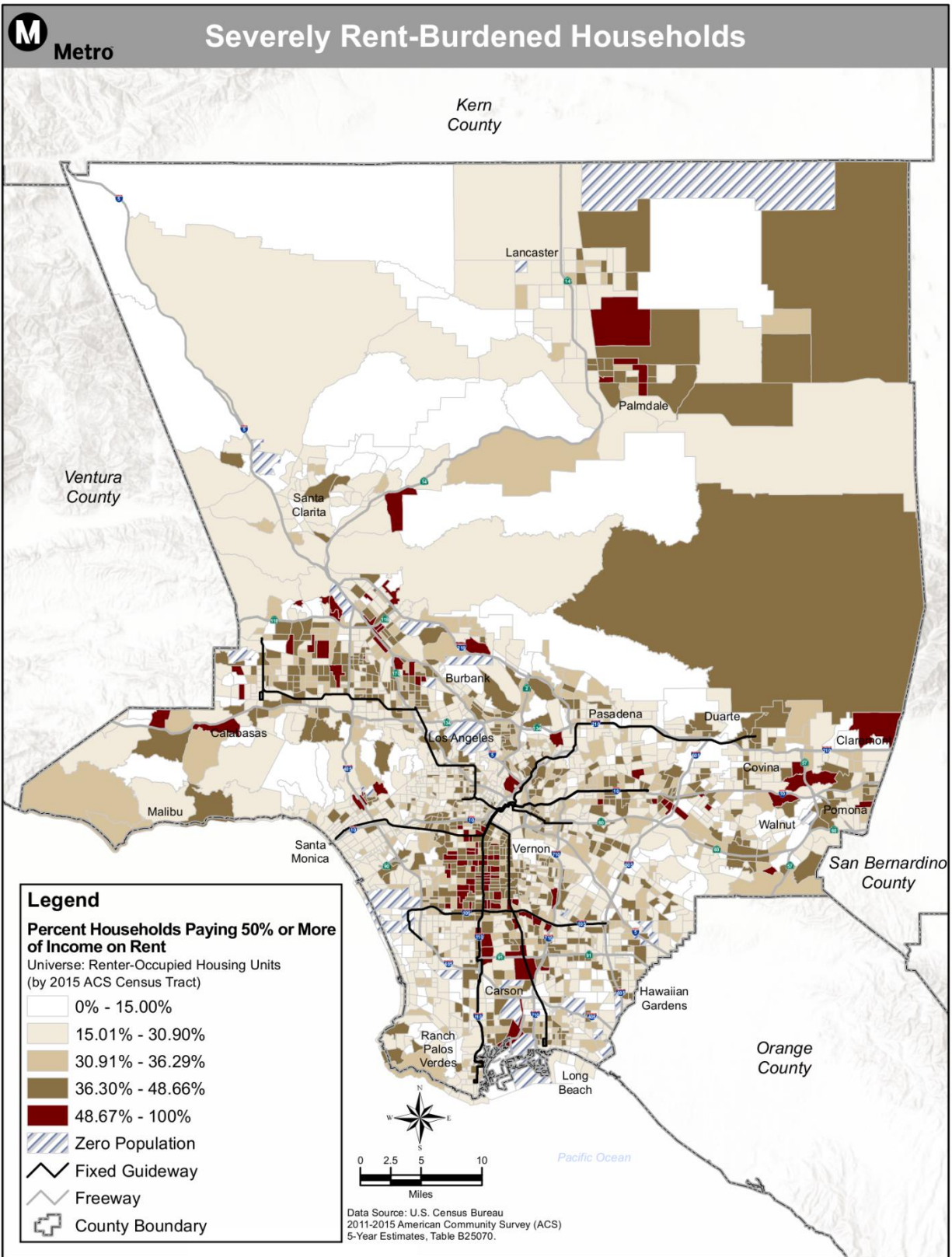
Figure 3-4. Federal Poverty Level (2015)



Map Produced By Countywide Planning and Development, LACMTA, November, 2017
 Thomas Bros. Data Used With Permission

P:\Jobs\3Y17011_SocialEquityPopulations\MXD\HH_Below_200percent_Poverty_Level_Modified_Natural_Break.mxd

Figure 3-5. Rent-Burdened Population (2015)

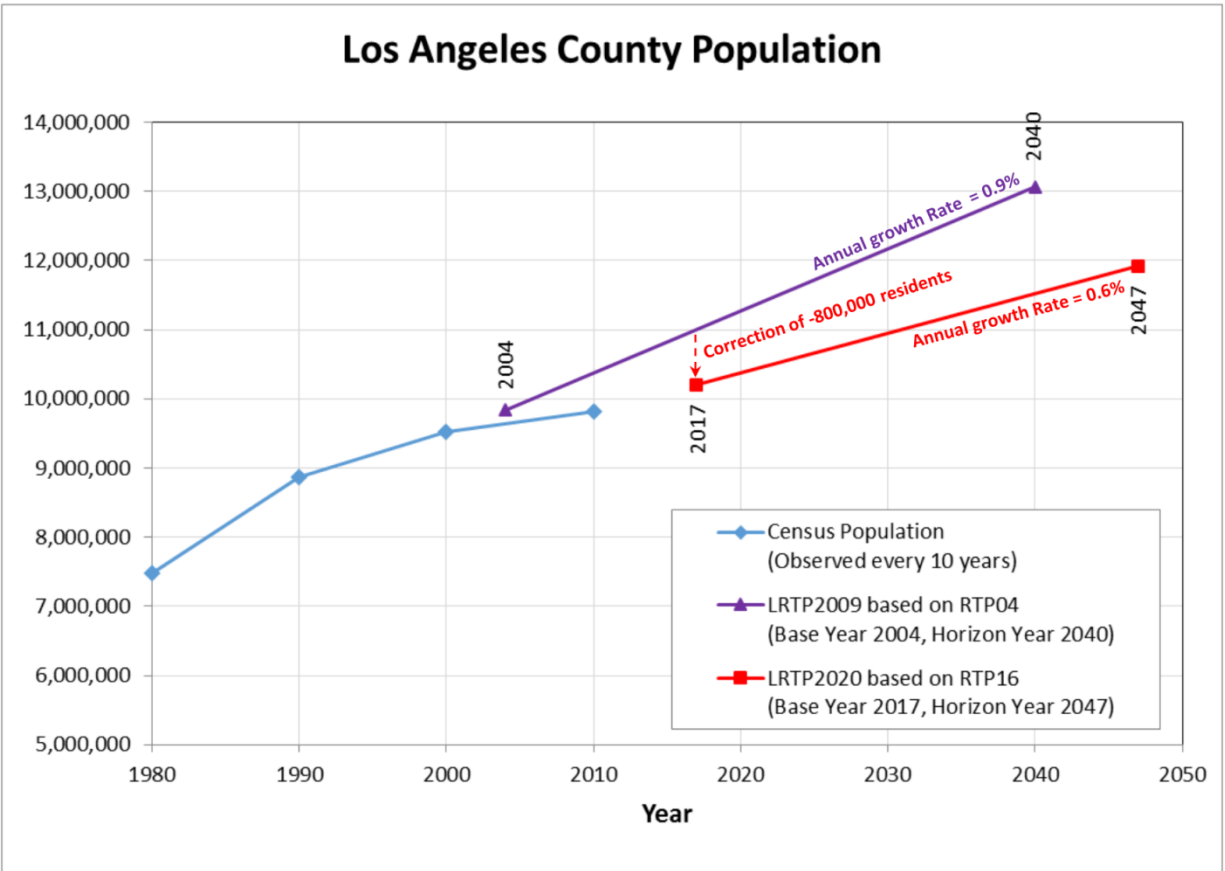


Map Produced By Countywide Planning and Development, LACMTA, November, 2017
 Thomas Bros. Data Used With Permission

P:\Uobs3\Y17011_SocialEquityPopulations\MXD\Severely_Rent_Burdened_Households_Modified_Natural_Break.mxd

- Demographic Trends
 - Historic Forecast Adjustments
 - Past SCAG forecasts were adjusted following the Recession
 - Current population is approximately 800,000 lower than projected (Figure 3-6)
 - Current jobs are approximately 680,000 lower (Figure 3-7)

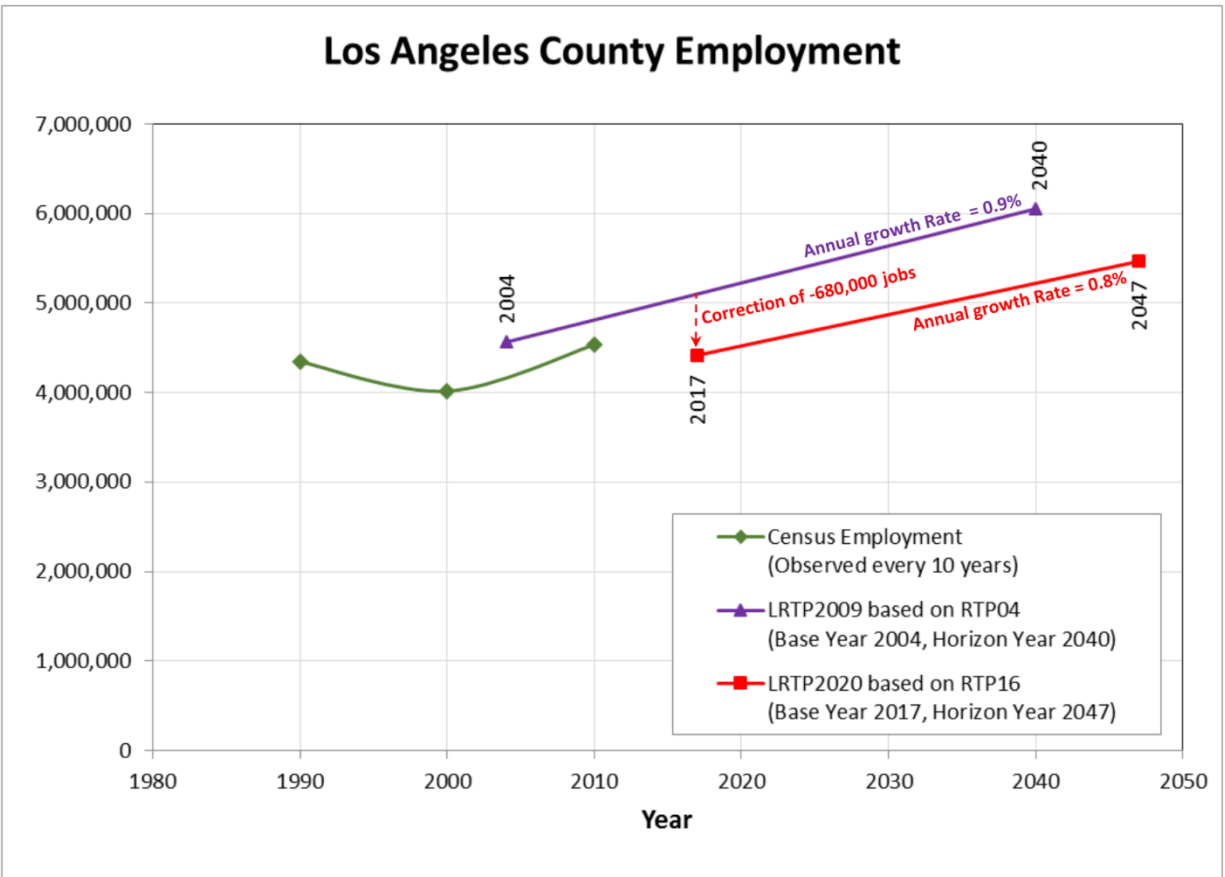
Figure 3-6. Population Projection



Notes:

1. L RTP 2009 was based on SCAG 2004 RTP, whereas L RTP 2020 is based on SCAG 2016 RTP. The latter has applied 800,000 population correction to base year 2017, and a more conservative annual growth rate of 0.3% in the next 30 years.

Figure 3-7. Employment Projection

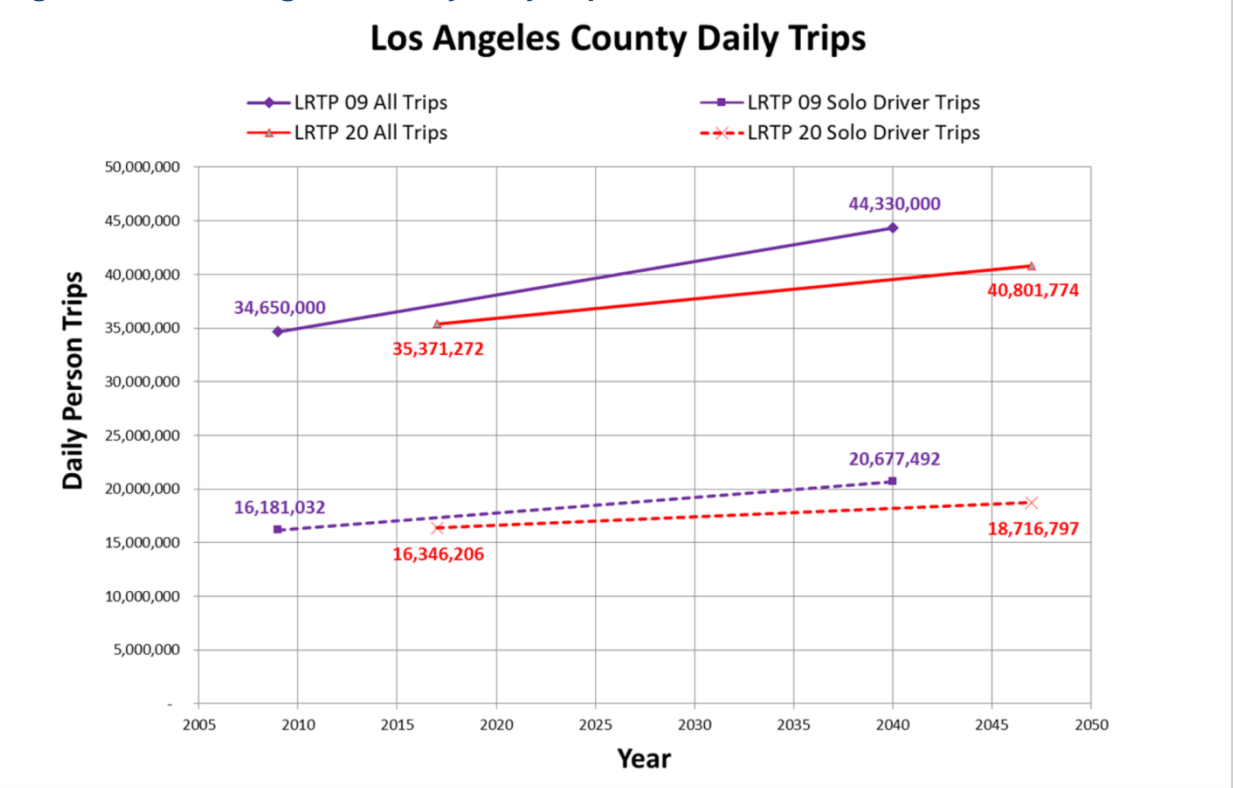


Notes:

1. L RTP 2009 was based on SCAG 2004 RTP, whereas L RTP 2020 is based on SCAG 2016 RTP. The latter has applied 680,000 job correction to base year 2017, and a more conservative annual growth rate of 0.8% in the next 30 years.

- Population and economic shifts (see Appendix 3A)
 - Homeless
 - Birth rate decrease
 - Work from home and other mode choices
 - Immigration
 - Other
- How does this affect our Ridership?
 - LA County Daily Trips (Figure 3-8)
 - Metro ridership demographics (see Appendix 3B)
 - Rail versus bus demographics – who precisely is riding each mode?
 - Customer satisfaction survey responses
 - Other Trip and travel mode information

Figure 3-8. Los Angeles County Daily Trips



How do we subdivide the county for LRTP purposes?

Metro Subregions (Figure 3-9)

- Established for plan analysis purposes;
- Subregions self-select their groupings and changed for Measure M;
- No specific boundary requirements; and
- SCAG has different subregions because they conduct different analyses.

Figure 3-9. Metro Subregions
 Metro Measure M Subregions



Subregional Detail

- Detailed demographic information and travel analysis for each of the nine subregions is included as Appendix 3C to this chapter. The following information is provided for each area:
 - Intro
 - a. List of jurisdictions, geography, locations
 - b. population and employment by jurisdictions
 - c. median household income
 - d. highway facilities, transit services
 - Land Use
 - a. Discussion by land use types
 - b. Discussion by jurisdictions
 - Travel Demand Factors
 - a. Population density by jurisdictions
 - b. Employment density by jurisdictions
 - c. Trip density by jurisdictions
 - d. Employment Centers (based on 2010 census)
 - Transit Dependent Communities
 - a. Zero-car ownership
 - b. Low income households
 - c. Senior Citizens with medium-low income
 - d. Transit Dependent Population

- Traffic Congestion
 - a. AM and Midday traffic volumes
 - b. AM and Midday traffic speeds

Travel Demand Model

The Metro Travel Demand Model analyzes average daily travel using eight major groupings: four trip purposes by two time periods. The four major travel purposes are:

- Home-Based-Work (HBW);
- Home-Based-University (HBU);
- Home-Based-Other (HBO); and
- Non-Home Based (NHB).

These purposes are further separated into travel during two time periods:

- Peak (6AM to 9AM and 3PM to 7PM); and
- Off-Peak (9AM to 3PM and 7PM to 6AM).

Of the purposes described above, the Peak Home-Based-Work is the most illustrative, as it reflects the general trend of travel in the AM rush hour and is indicative of the primary transit market. Appendix 3D presents the 2017 Peak Period Home-Based-Work trip exchange flows between the 9 Los Angeles County Sub-Regions.

2. How do we serve our communities?

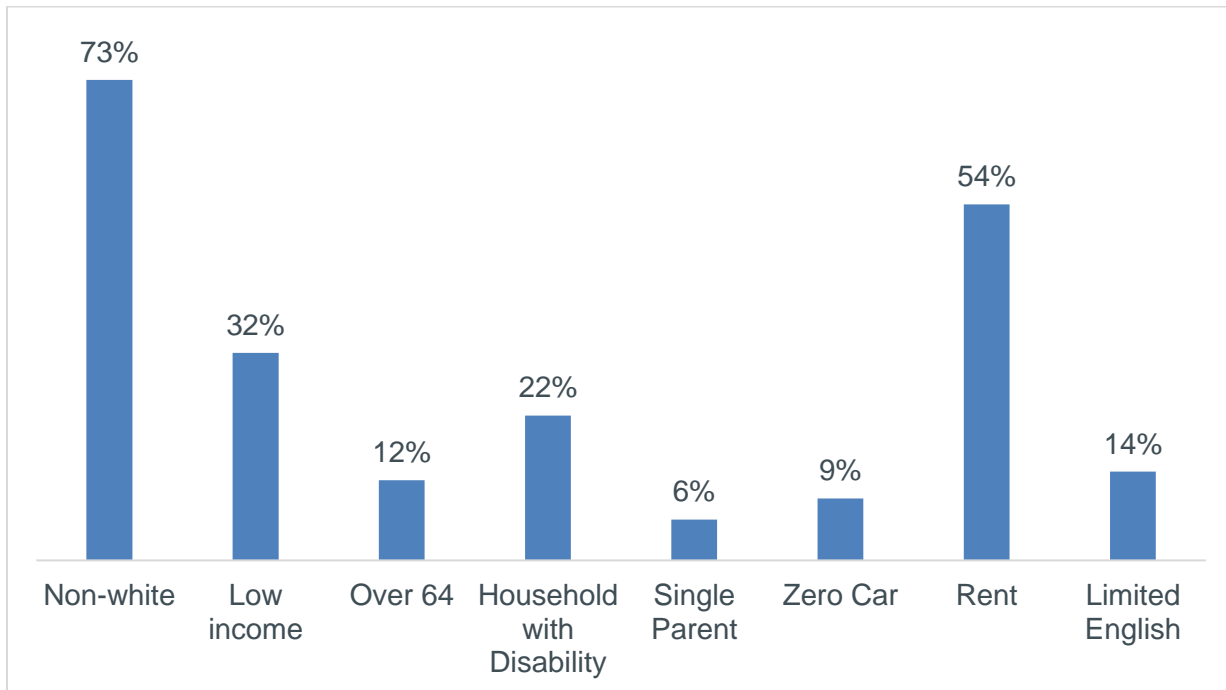
Understanding the commonalities and the differences in the Communities we serve.

Equity Lens on LA County Demographics

Research shows that tying personal well-being to demographic factors and locational geography can be used to develop a tool to identify priorities and track progress over time (e.g., *A Portrait of Los Angeles County*, Measure of America of the Social Science Research Council). Metro can use this tool to allocate transportation resources to a community based on need.

To understand the demographic backdrop in LA County, we identified the percent of the population with a variety of factors. Figure 3-10 shows LA County demographics with respect to each demographic factor. As of 2016, the LA County population was over 10 million with more than 3.2 million households. LA County is a “majority minority” county, with 73 percent of the population identifying as non-white. Nearly one third of LA County households earn less than \$35,000 annually. The \$35,000 annual income threshold is 60 percent of area median income and 140 percent of the federal poverty level. Notably, more than half of households are renters, nearly a quarter of households have at least one person with a disability, and nearly 10% of households own no car.

Figure 3-10. LA County Demographic Details as a Percentage of Total Population, 2016



Geographically, low-income, non-white, and zero-car populations are concentrated in certain regions. The highest concentrations of low-income households are located near Downtown, South LA, and portions of the Gateway Cities, San Fernando Valley, and North County (Figure 3-4). The highest concentrations of non-white residents are clustered in similar areas, with the addition of much of the San Gabriel Valley (Figure 3-2).

Inequity

Intuitively, the disparate conditions and demographics lead to uneven distribution of resources and gaps in access to opportunity within the County.

How has inequity shaped our communities?

- Redlining
- Gentrification and Urban Displacement
- Opportunity Gaps

How has Metro addressed inequity in the past?

- Title VI – prohibits discrimination on race, color, etc.
- Expanding programs to serve the most disadvantaged
 - Low Income Fare and other subsidy programs
 - Sustainability programs (e.g., clean air buses to address health concerns, etc.)
- Equity Platform – See Values Framework

Equity Baseline Next Steps

Equity is difficult to measure because it means different things to different people. In order to measure the performance of transportation plans or projects, inequity is easier to quantify. Performance will flow from the needs and wants of the communities, as identified by public engagement and other policy considerations. A full discussion on equity and performance measures is presented in the Values Chapter.

3. What are the needs and wants of our communities?

LRTP outreach is exploring this question. This area will support what is working and what is not working. In order to assess community needs we engage stakeholders throughout the County. The LRTP will have to address the needs as identified by the communities, as well as the scale, scope and location of the needs. The following Public Engagement effort is ongoing:

Outreach conducted

- Online surveys, polls, questionnaires
- Onboard surveys
- Workshops and working groups
- Innovative public engagement events

What are LRTP public engagement efforts?

- PAC
- Concurrent Metro studies engagement (i.e. NextGen Study)
- LRTP Survey

What are our communities saying?

The following areas were identified as the most frequent focus areas for future transportation related investment:

- Better transit (more frequent, secure, reliable, better customer experience, etc.)
- Less congestion (options to bypass traffic, better traffic flow, and improved travel times)
- More Affordable (improved/affordable access to housing, jobs and more)
- Innovative Mobility Choices (mobility services, apps and other innovations)
- Safer/Complete Streets (better roadways, including greener, rolling, walking, etc.)

3.2 Understanding our Partners

1. Who are our Partners?

What do we mean by a partnership?

A working definition of a partnership is “a collaborative relationship between entities to work toward shared objectives through a mutually agreed upon division of labor.” This section introduces the idea of a partnership as context to better understand Metro’s interdependence with its partners.

Inventory Partners by Category

Inventory is a sampling of key partners but is not exhaustive.

- Community Based Organizations
- Non-profits
- Private Sector Organizations (Innovators, economic development, business community, private transportation providers both goods movement and service providers)
- Government Agencies:
 - Municipal Operators
 - Cities
 - County
 - SCAG
 - State
 - Federal

PAC

- Roles and responsibilities
- Membership
 - Consumers
 - Providers
 - Jurisdictions

2. Why does Metro partner?

Metro’s Vision 2028 Strategic Plan sets a goal to transform Los Angeles County through regional collaboration and national leadership. While only a portion of the needs identified by the communities throughout LA County can be addressed directly by Metro alone, the LRTP identifies those partners who can also assist in meeting these needs. Metro’s Strategic Plan acknowledges that while Metro own and operate significant components of the County’s transportation system, the remaining elements, particularly street and highways, are governed by other jurisdictions. While Metro does not direct the actions of its partners, Metro does distribute a substantial portion of the County’s transportation funds to these organizations. In this capacity, Metro can provide incentives for partner organizations to help in addressing the mobility needs identified.

Metro funds allocated to our partners include:

- Transportation Sales Taxes: Local Return
 - Program derives from the four half-cent sales tax that Metro placed where funds will be re-allocated back to the county’s local governments to address specific transportation needs of each jurisdiction

- Measure M: Multi-year Subregional Program
 - Intended to provide sub-regions flexibility in using fund allocated through Measure M to develop a five-year program of projects. Requirements include community engagement, performance metrics, MSP nexus discussion, and mobility matrices.

What are the different forms that partnerships can take?

Here a brief exploration of the universe of partnerships is offered, informal and formal, voluntary and obligatory. This section will not be exhaustive but offer insight into a typology of partnerships including:

- Compliance
- Mutual-aid
- Collaboration
- Information sharing
- Public-private
- Interdisciplinary
- Donor/recipient
- Funding alliances
- Cost-sharing

Metro is an interdependent agency

Metro does not operate in a vacuum but within and among cities and other agencies with varied, complex regulatory systems and infrastructure in shared public spaces. Not only does Metro share this responsibility in terms of daily operations, planning, funding, constructing, compliance, etc.

What is under Metro’s control/authority?

See Metro’s statutory authority in Orientation and Context chapter.

What guides our relationship with our partners?

Our relationship with our partners will be guided by Goal 4 of the Vision 2028 Strategic Plan: Transform LA County through regional collaboration and national leadership

Summary of Strategic Plan Principles of partnerships

- Trust
- Encourage
- Lead
- Work to advance mobility goals
- Incentivize
- Collaborate to achieve co-benefits
- Legislative Advocacy

See Vision 2028 Action Matrix for partnership goals, objectives and plans.

What is outside our scope? Who are the partners that influence outcomes in the transportation space?

Opportunity to briefly explain how other disciplines and public sectors intersect with transportation: land use, housing, public right of way, local connections, urban design, healthy communities etc.

3. What are the wants/needs/requirements of our partners?

Our partners represent every local agency in Los Angeles County where every neighborhood matters and all are working aggressively to provide opportunities for their residents and businesses to thrive. Our partners have acknowledged that transportation is critical to facilitating the growth of their local economies and connecting residents to jobs. It is critical to ensure that the plans for the region's transportation infrastructure is coordinated and aligned

See Appendix 3C for a detailed description of the Travel Demand by Subregion

4. Partner Plan Inventory

How do the plans of our partners relate to the LRTP?

As part of the effort to develop a comprehensive baseline we contacted the 89 jurisdictions (including local governments, Council of Governments and municipal transit operators) in the County to self-identify the adopted plans and policies that are most important to their organization. The plans and policies of our partners help define the universe of possibilities across the County. This section sets the stage for stating shared goals/values in how we collaborate with partners prospectively.

What are our shared values?

- Conflicts
- Consistencies
- Opportunities

Attachment B

[http://libraryarchives.metro.net/DB Attachments/2018-0819 Attachment B Baseline Appendix.pdf](http://libraryarchives.metro.net/DB_Attachments/2018-0819_Attachment_B_Baseline_Appendix.pdf)

LONG RANGE TRANSPORTATION PLAN: VALUES (DRAFT FRAMEWORK)

1. What is the Values chapter?

- This section presents the statement of values that influence/guide the LRTP's policy and investment decisions.

Those principles, norms and cultural values include the four Guiding Principles developed at the onset of the LRTP Update process, which serve as requirements for the LRTP approach and outcomes:

- Public engagement and analytical rigor—undertaking broad and strategic public engagement is vital to creating a plan that reflects our diverse public and stakeholders, necessitating that decision-making be guided by the input received, along with strong technical work to illustrate a range of possible futures and corresponding outcomes;
- Equity, environment and health—creating a comprehensive transportation plan enables mobility and access and therefore has a powerful role to play in promoting equity, enhancing the environment and improving public health, all of which would be instilled into every aspect of the LRTP;
- Innovations, resiliency, and adaptability—reinforces the importance of a flexible and adaptable plan to address a range of innovations, which ensures that the plan can withstand these and other major changes, along with emphasizing the significance of maintaining a state of good repair and service; and
- Financial discipline and economic development—stresses the need to balance building significant, new transportation facilities with assuring funding to maintain a high operating standard and state of good repair, and recognizes the fundamental role a holistic multi-modal transportation network has in facilitating economic prosperity.
 - The LRTP must be financially constrained per requirements for SCAG's RTP/SCS

2. What does this chapter address?

- Goals and Policies
 - Vision 2028 provides goals and outcomes
 - Unify past policies and future objectives
 - Require discretionary consistency
- Performance Metrics
 - Measurable
 - Evaluate existing conditions
 - Forecast future impacts
 - Function and implementation specific
- Past Performance Measure Adoption

- Measure M: Metro Board adopted a performance framework in December 2015 for all LRTP projects. Performance Metric themes include:
 - Mobility
 - Accessibility
 - Economy
 - Safety
 - Sustainability & Quality of Life

3. What are the Purposes of Values Driven Performance for the LRTP?

Values Driven Performance establishes a framework for developing the plan and monitoring the effectiveness of the implementation.

- *Address stated goals:* A performance measure may quantify, with a measurable result or score, a project’s impact on vehicle miles traveled (VMT). However, a single number is not informative unless it is tied to an agency goal and objective. The goal and objective helps inform whether a positive or negative number is desired. Additionally, a target or criteria can help Metro determine how big of an impact is desired.
- *Focus on system-level impacts.* The framework is intended to serve as a systemwide sample of key performance indicators. It is not intended to be an exhaustive list of all measures of interest. Metro considers many additional variables when evaluating the performance of specific projects, programs, or modal interests.
- *Help Metro Track Progress:* Performance measures will help Metro in benchmarking systemic progress toward regional goals, providing transparency and accountability to taxpayers and regional stakeholders.

4. What do we mean by “performance?”

Performance measures, performance metrics, and criteria are often used interchangeably. While there is a lot of overlap, there are subtle but important differences:

Term	Definition	Example
Performance Measure	A quantifiable measure of impact	Vehicle miles traveled (VMT)
Performance Metric	The quantified value of the LRTP’s impact	Recommended projects will decrease VMT by 3% compared to baseline
Criteria/Target	The threshold or standard level of performance the LRTP seeks to meet	A preferred scenario should decrease VMT by 5% compared to baseline

5. How is a Performance Framework structured?

LRTP performance framework is organized around goals (what do we want to achieve?), objectives (how do we address our goals?), and performance measures (how do we track and measure success?):

- **Goals** (“What do we want to achieve?”) drawn from the service-oriented goals of *Vision 2028*.

- **Objectives** (“How should we address our goals?”) drawn from public input gathered through the outreach phase of the LRTP, as well as objectives from countywide planning efforts, statutory requirements, and *Vision 2028* initiatives.
- **Performance Measures** (“How do we track and measure success?”) drawn from *Vision 2028*, the US Department of Transportation’s Transportation Performance Management rulemaking, Metro’s the LRTP/Measure M Performance Framework, the *SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy*, and other Metro plans and programs.

6. What is the purpose of scenario testing and how does it use performance?

The primary purpose of scenario testing is to understand the benefits and drawbacks of each, in addition to identifying areas where more effort may be needed in future planning cycles to achieve ambitious targets. Evaluating combinations of different transportation investment alternatives, including alignment options with complementary land use growth patterns will assist policymakers, planners, and the public at large to make investment related decisions.

Scenarios considered:

- High-Frequency Transit
- Congestion Pricing, including mileage-based user fee, cordon pricing and corridor pricing
- Enhanced Active Transportation
- Innovative Transportation
- TOC Infill

7. What is Set Forth in the Metro Vision 2028 Strategic Plan?

- Metro’s five vital and bold goals
 - Provide high-quality mobility options that enable people to spend less time traveling.
 - Deliver outstanding trip experiences for all users of the transportation system.
 - Enhance communities and lives through mobility and access to opportunity.
 - Transform LA County through regional collaboration and national leadership.
 - Provide responsive, accountable, and trustworthy governance within the Metro organization.
- Metro’s mission is to provide a world-class transportation system that enhances quality of life for all who live, work, and play within LA County.
- Metro’s vision is composed of three elements:
 - Increased prosperity for all by removing mobility barriers;
 - Swift and easy mobility throughout LA County, anytime; and
 - Accommodating more trips through a variety of high-quality mobility options
- Action matrix identifies path forward toward implementation of Vision 2028:
 - Adopt performance metrics and incorporate them into practices at Metro
 - Develop performance metrics specific to the Bus Rapid Transit Vision and Principles Study
 - Build an asset management practice
 - Define guidelines for performance outcomes of full transportation network
 - Update performance measures related to security
 - Develop performance measurement/continuous improvement program related to customer satisfaction
 - Develop program of rigorous performance management and continuous improvement across Metro, including the allocation of staff and financial resources
 - Establish baseline for system performance

8. What role does Equity play in the Values Framework?

Metro introduced the Equity Platform in February 2018 as a basis to actively lead and partner in addressing and overcoming disparities in accessing opportunity. Metro has committed to incorporating equity principles into, and pursuing equitable outcomes emerging from, everything we do. The Equity Platform is comprised of four pillars:

- **Define and Measure:** define equity and develop performance metrics that allow us to determine whether equity, as defined, is being meaningfully achieved as part of Metro’s actions;
- **Listen and Learn:** establish the crucial connection between Metro and the larger LA County community in carrying out the principles of the Platform;
- **Focus and Deliver:** implement actions and programs that carry out Equity Platform objectives and principles; and
- **Train and Grow:** recognize that significant commitments will be needed from within the Metro organization to understand, embrace and maximize equity advancements.

Implementation of the four Equity Platform pillars illustrates how values guide Metro, and will be ongoing.

The “Define and Measure” pillar embraces the key task of defining “equity” in the transportation realm — and where transportation intersects with other disciplines. This must be matched with performance metrics that allow us to determine whether equity, as defined, is being meaningfully achieved as part of Metro’s actions. It is essential that equity definitions and metrics be done in a collaborative environment, to include those voices which may not have been previously sought at the forefront of Metro-driven decisions. Efforts include:

1. Work with the Policy Advisory Council (PAC) to define “opportunity gaps” —
2. Construct and apply equity-driven performance metrics in key Metro initiatives

In the meantime, include appropriate metrics in both the evaluation and recommendations of major initiatives.

The “Listen and Learn” pillar in the Equity Platform establishes the crucial connection between Metro and the larger Los Angeles County community in carrying out the principles of the Platform. The following elements have been initiated or are in progress:

1. Establish new partnerships with Community Based Organizations (CBOs).
2. Establish Equity Advisory avenues.

Realizing Equity

The “Focus and Deliver” pillar addresses the need to implement actions and programs that carry out Equity Platform objectives and principles. Examples of on-going and future initiatives include, but are not limited to:

- NextGen
- Women and Girls Governing Council:
- LRTP

- Disadvantaged Business Enterprise/Veterans Business Enterprise assistance
- Career Pathway initiatives, including the proposed Transportation School
- Explore other assistance to resource-challenged local jurisdictions in Los Angeles County,

The “Train and Grow” pillar recognizes that implementing the Equity Platform effectively will require significant commitments within the Metro organization to understand, embrace, and maximize equity advancements in the other pillars. Commitments include:

- Pursue senior-/executive-level training program in racial equity.
- Work with foundations on possible training/seminars geared to Metro-related focus areas.
- Host workshop on technical best practices for equity measurement and analysis.

9. What are the key issues influencing access to opportunity?

The framework explores the relationship between demographic factors (independent variable) and opportunity factors (dependent variable).

The Values Framework attempts to understand the correlation between opportunity gaps and demographic factors, to identify where in the county these communities are concentrated, as identified in the Baseline Understanding Framework.

	Demographics (Risk Factors)
Opportunity Factors (Outcomes)	<ul style="list-style-type: none"> • Are there gaps in outcomes? • If so, where are the disparities concentrated?

Equity Risk Factors

It is difficult to measure equity because it means different things to different people. Inequity, or gaps in opportunity, is easier to quantify. Demographic factors are important determinants of inequity in LA County and are identified in the table below.

<i>Demographics (Risk Factors)</i>
• Income (< \$35,000 annually)
• Race (Non-white)
• Family structure (Single-parent household)
• Car ownership (Zero-car household)
• English speaking (Limited English household)
• Housing tenure (renter)

- Birthplace (Foreign-born)
- Age (Under 18 or over 65)
- Disability (Household with at least one person with a disability)
- Gender (Female)

Several of these demographic factors are more strongly correlated with low access to opportunity. Communities with the highest non-white, low-income and zero-car populations are at the greatest risk for overall lack of opportunity and, therefore, face the greatest inequities. These demographic factors are described in greater detail in the *Baseline Understanding* section.

Access to Opportunity

Opportunity Factors are outcomes that are affected by demographic factors. Data on Opportunity Factors can show the opportunity gaps that exist within various communities, which includes access differences, cost of living rates or other disproportionate impacts, as compared to the County average. Below is a list of Opportunity factors that could help identify communities with greater risk(s) and/or larger opportunity gaps, when looking at more specific metrics within each factor:

Opportunity Factors

- Jobs/Employment
- Housing
- Education
- Public Health
- Environment Quality
- Safety/Security

10. What Demographic Factors face the greatest opportunity challenges?

Each demographic factor is important to track over time, but some appear to be more strongly correlated with low access to opportunity. For example, neighborhood unemployment rates tend to increase as their concentrations of low-income, non-white, single parent, and renter populations increase. Overall, this analysis suggests that communities with the greatest risk for overall lack of opportunity are the highest concentrations of the following populations:

- **Low-income;**
- **Non-white; and**
- **Zero-car.**

Together, communities with large concentrations of low-income, non-white and zero-car households show opportunity gaps well over the county average. Note that many of the above demographic factors are correlated with one another, so by focusing specifically on these three factors, we capture larger concentrations of other demographic factors as well. Stakeholders on the PAC Equity Working Group agreed that these three demographic factors are critical to defining opportunity and identifying Equity Focus Communities (EFCs).

Figure 4-1 Concentration of Low-Income Households

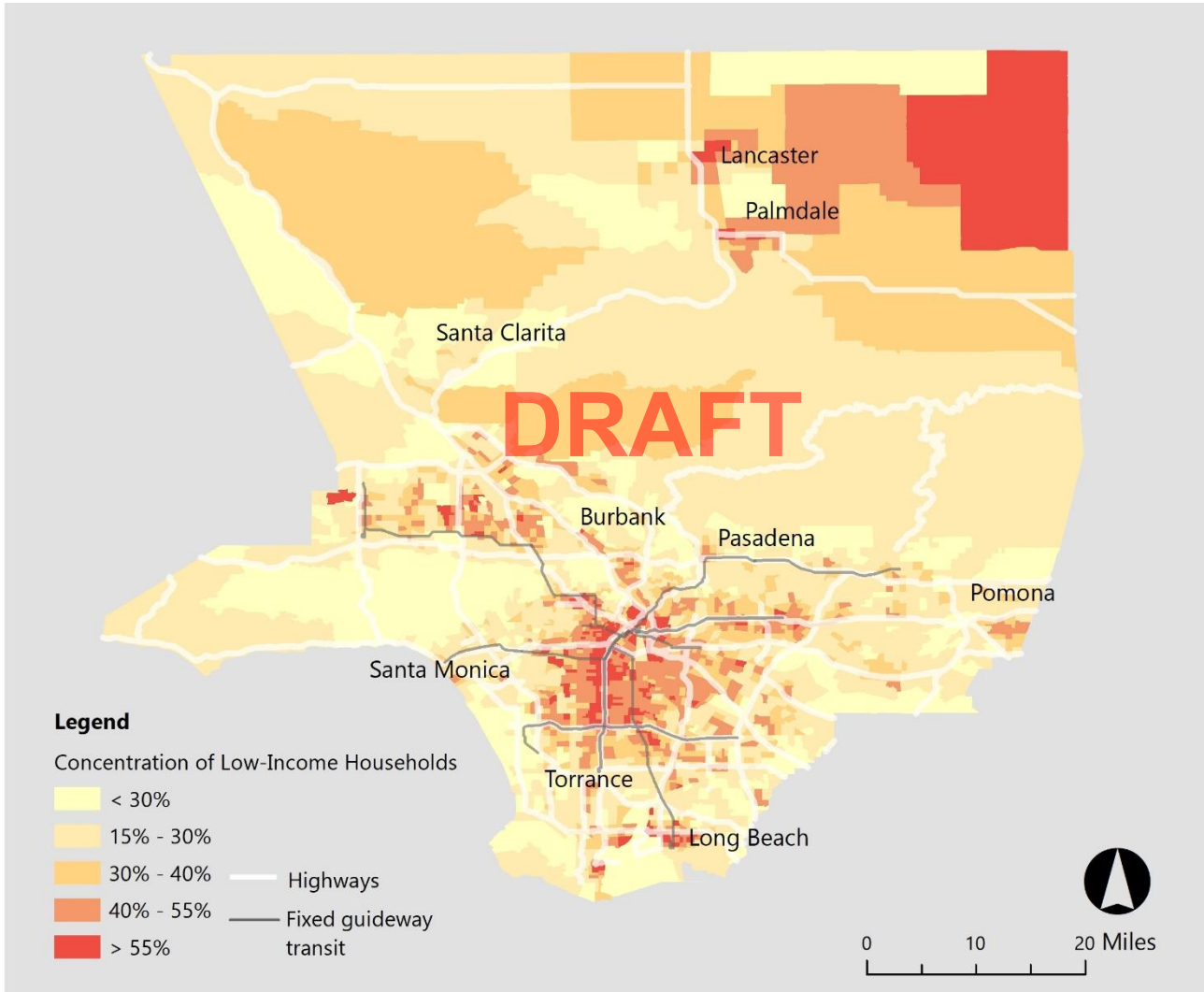


Figure 4-2 Concentration of Non-White Population

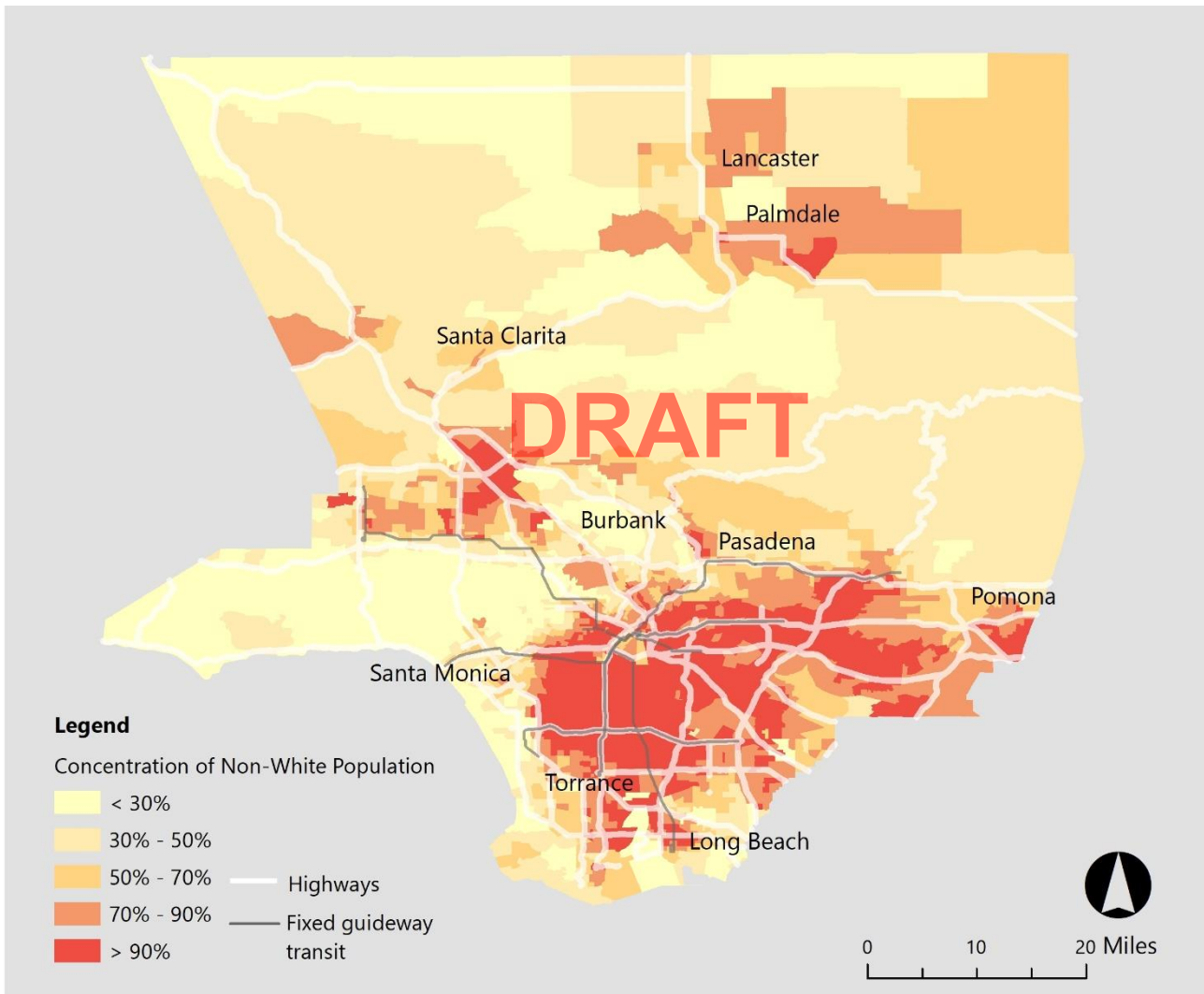
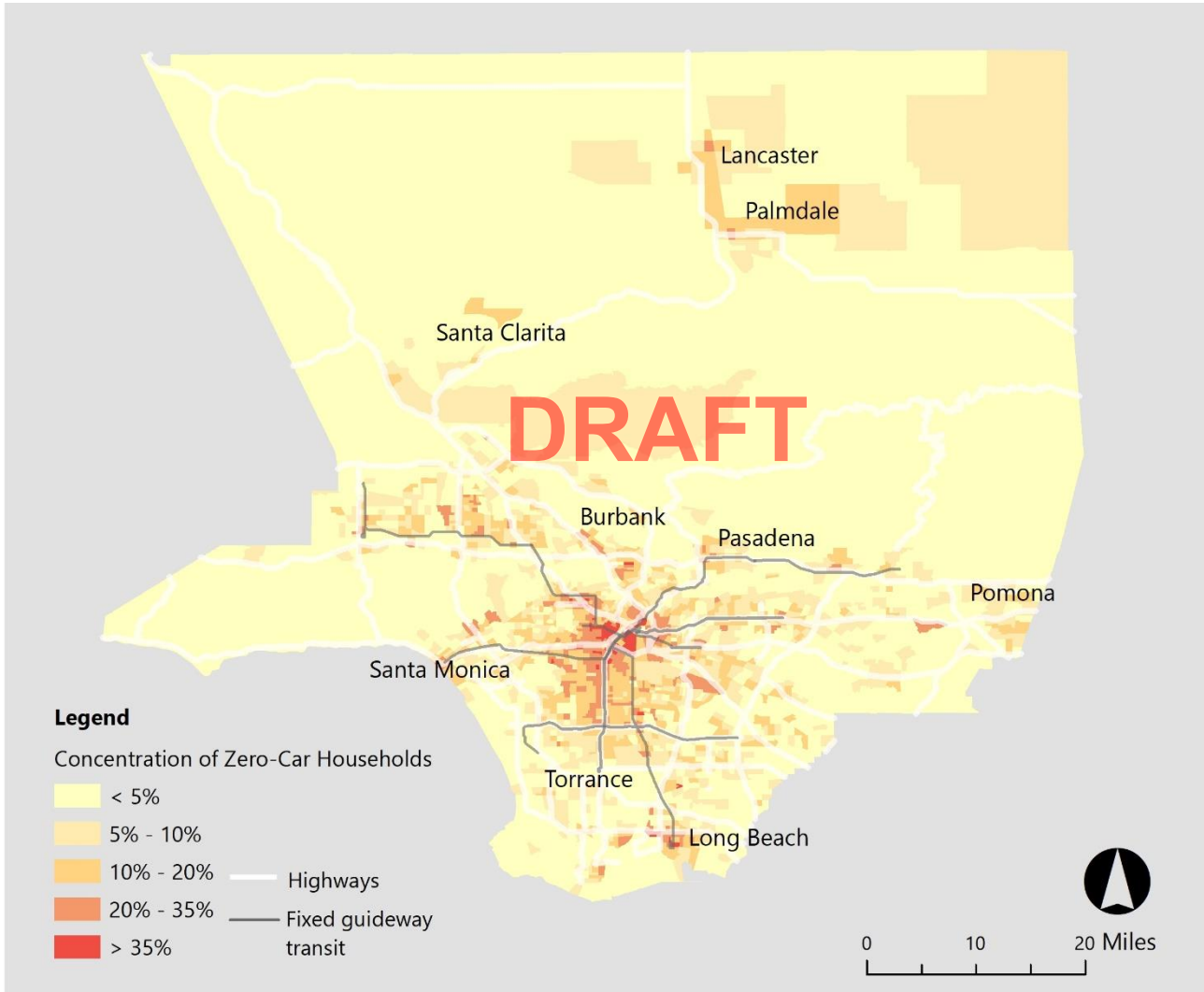


Figure 4-3 Concentration of Zero-Car Households



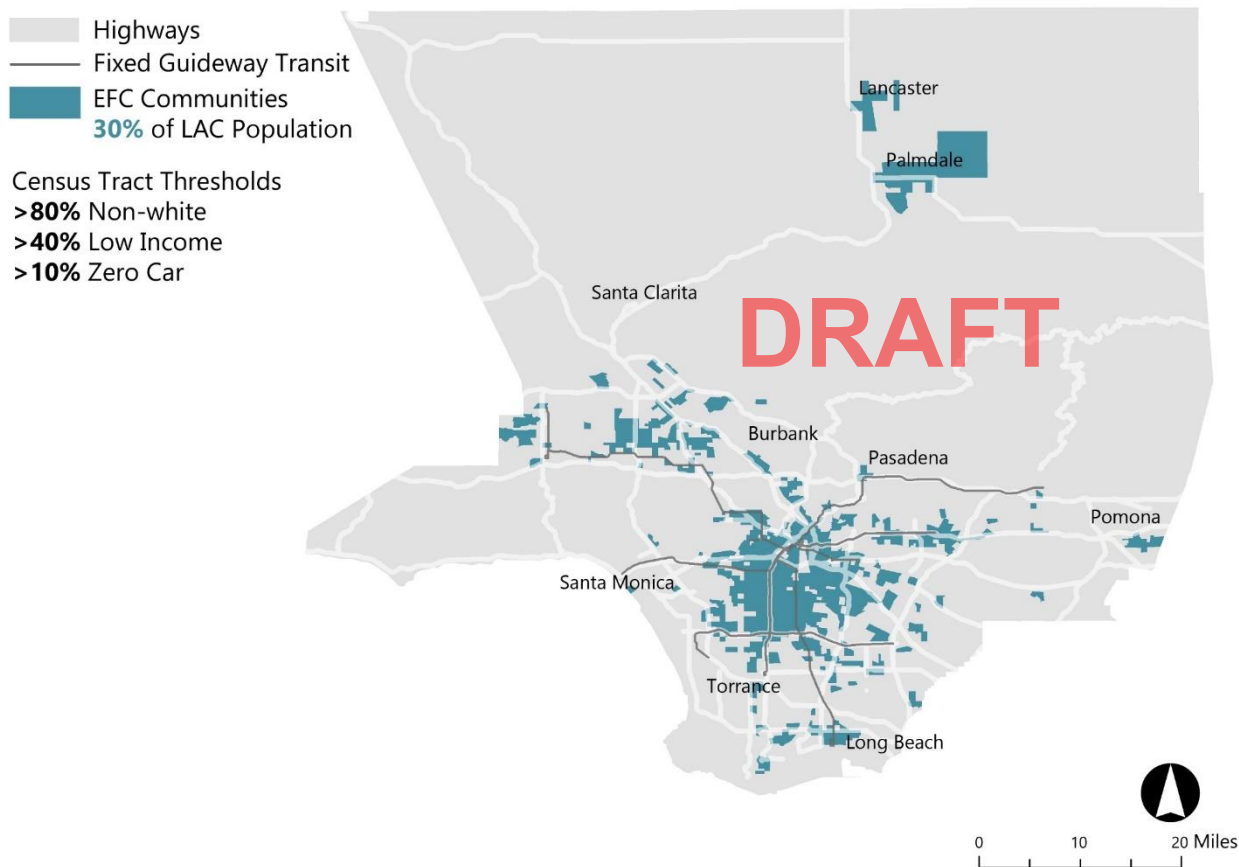
Equity Focus Communities (EFCs)

Equity focus communities (EFCs) are those communities most heavily impacted by gaps in inequity throughout the County. The transportation performance of EFCs can be evaluated by setting a threshold of census tracts in the County. A 30% threshold was presented to PAC and is presented as a draft in Figure 4. The 30% threshold represents approximately 3 million people in LA County and is distinguished by:

- More than 40% of the census tracts having low-income households over the County average; and
- Either more than 80% of the census tracts having non-white populations over the County average; or
- More than 10% of the census tracts having zero-car households over the County average.

Most of the other demographic factors are strongly correlated with these three factors.

Figure 4-4 Equity-Focus Communities



11. Why develop consensus for LRTP Performance Measures?

Consensus is a necessary element for the LRTP, to be able to reflect the priorities of the community and support attainment of desired performance outcomes for the multimodal transportation system. Public engagement for the LRTP will include stakeholder feedback on the Values, including the performance measures.

Metro is working internally and externally to build consensus on performance for the updated LRTP.

When complete, this section of the LRTP will deliver the following:

- Establish overall performance measures that measure and forecast the impacts (positive and negative) for transportation investments;
- Establish an evaluation of the existing transportation network, utilizing the same performance criteria;
- Define Equity for purposes of the LRTP, and for project specific purposes; and
- Identify which performance impacts are Metro controlled, and which are partnership-driven.

Performance measures serve as a basis for comparing alternative improvement strategies and for tracking performance over time. The selection of performance measures is a critical selection that will guide future policies and investment strategies. Therefore, the Metro Board must adopt and embrace the performance measures, as part of the LRTP update, to align Board adopted goals with stakeholder priorities.

Draft Performance Measures

A draft performance framework was shared with PAC in April. The framework included each of the five Vision 2028 goals, system performance objectives, and draft performance measures as displayed below in Figure 5.

Performance measures specific to EFCs are identified in Goal 3 (Enhance communities and lives through mobility and access to opportunity), Performance Objective 5 (Promote access to opportunity in Equity Focus Communities).

Figure 5. Draft Performance Measures

Vision 2028 Goals	#	System Performance Objectives	DRAFT Performance Measures
Goal 1: Provide high-quality mobility options that enable people to spend less time traveling	1	Optimize the speed, reliability and performance of the transportation system	Travel time by mode
	2	Provide high-quality mobility options for all	Travel time reliability by mode
			Percent of households and jobs within 10-minute walk or roll of high-quality transit
			Transit competitiveness (vs. driving) in key travel markets
Goal 2: Deliver outstanding trip experiences for all users of the transportation system	3	Improve transportation system safety and security	Person travel hours in non-SOV modes
			Active transportation mode share
	4	Maintain a high level of customer satisfaction	Collisions by mode by severity
Goal 3: Enhance communities and lives through mobility and access to opportunity	5	Promote access to opportunity in Equity Focus Communities	Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit
			Part I & II crimes reported on Metro transit system
			Customer satisfaction with Metro bus, rail, and Express Lanes systems
			Travel time by mode in EFCs
			Percent of Equity Focus Community (EFC) households within 10-minute walk or roll of high quality transit
			Collisions by mode and severity in EFCs
			Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit in EFCs
			Affordable housing within ½ mile of high quality transit in EFCs
	6	Reduce household costs spent on transportation and housing	Percent of household income spent on combined transportation and housing costs in EFCs
			Air quality pollutants in EFCs
	7	Promote economic vitality	Percent of activity centers in EFCs within 10-minute walk or roll of high quality transit
Percent of roads and highway bridges in good and fair condition in EFCs			
Affordable housing within ½ mile of high quality transit			
8	Improve environmental	GHG emissions	

		quality and resilience	Air quality pollutants
	9	Enhance public health and quality of life	Percent of activity centers within 10-minute walk or roll of high quality transit
			Active transportation mode share
Goal 4: Transform LA County through regional collaboration and national leadership	10	Manage roadway congestion	Vehicle hours of delay per capita
			Vehicle miles traveled per capita
			Total person throughput
			Average roadway incident clearance time
	11	Increase share of travel by non-SOV modes	Annual transit trips
			SOV mode share
	12	Support efficient goods movement	Truck vehicle hours of delay
Truck travel time reliability			
Goal 5: Provide responsive, accountable, and trustworthy governance within Metro	13	Maintain a state of good repair of transportation assets	Percent of roads and highway bridges in good and fair condition
			Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life
	14	Ensure accountability through transparent reporting practices	Progress toward project completion compared to financial forecast
			Legal and policy reports issued on time

Appendix 4A includes draft performance metrics and data sources for the measures.

Appendix

4A. Proposed LRTP Performance Metrics

Vision 2028 Goals	#	System Performance Objectives	DRAFT Performance Measures	Performance Metric Description	Modes measured	Data Source
Goal 1: Provide high-quality mobility options that enable people to spend less time traveling	1	Optimize the speed, reliability and performance of the transportation system	Travel time by mode	Average AM and Midday travel time (in minutes) by mode	auto, truck, rail, bus, bike, walk	Metro Travel Demand Model (2017)
			Travel time reliability by mode	% variation in AM and Midday travel time (in minutes) by mode	auto, truck, transit	Metro Arterial Performance Monitoring Tool Metro Service Planning and Analysis group
	2	Provide high-quality mobility options for all	Percent of households and jobs within 10-minute walk or roll of high-quality transit	Percent of households and jobs within 10-minute walk or roll of high-quality mobility options		Metro Service Planning Data; Metro Travel Demand Model (2017); US Census Bureau ACS (2017) and Census Transportation Planning Products
			Transit competitiveness (vs. driving) in key travel markets	Ratio of transit travel time to auto travel time between zonal pairs		Data from Metro NextGen Bus Study
			Person travel hours in non-SOV modes	Person travel hours for transit, HOV, bicycling, and walking	HOV, transit, biking, walking	Metro Travel Demand Model (2017)
			Active transportation mode share	% of trips made by bicycle or walking	Bike, walk	California Household Travel Survey (2012); National Household Travel Survey (2017); US Census Bureau ACS (2017)
	Goal 2: Deliver outstanding trip experiences for all users of the transportation system	3	Improve transportation system safety and security	Collisions by mode by severity	Number of fatal and severe collisions involving autos, trucks, bicycles, and pedestrians	auto, bike, walk, truck
Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit				Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit		Metro GIS data (2018); LA County Dept. of Parks and Rec.

		Part I & II crimes reported on Metro transit system	Part I & II crimes reported on Metro transit system		LA Police Dept; LA Sheriffs Dept.; Long Beach Police Dept.	
	4	Maintain a high level of customer satisfaction	Customer satisfaction with Metro bus, rail, and Express Lanes systems	Customer satisfaction with Metro bus, rail, and Express Lanes systems	Bus, Rail, HOV/ Express Lanes	Metro Customer Satisfaction Survey
Goal 3: Enhance communities and lives through mobility and access to opportunity	5	Promote access to opportunity in Equity Focus Communities	Travel time by mode in EFCs	Average AM and Midday travel time (in minutes) by mode for trips originating in EFCs	SOV, HOV, truck, transit, bike, walk	Metro Travel Demand Model (2017)
			Percent of Equity Focus Community (EFC) households within 10-minute walk or roll of high quality transit	Percent of Equity Focus Community (EFC) households within 10-minute walk or roll of high quality transit		Metro Service Planning Data; Metro Travel Demand Model (2017); US Census Bureau ACS (2017) and Census Transportation Planning Products
			Collisions by mode and severity in EFCs	Number of fatal and severe collisions located in EFCs involving autos, trucks, bicycles, and pedestrians	SOV, HOV, truck, transit, bike, walk	Statewide Integrated Traffic Records System (SWITRS)
			Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit in EFCs	Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit in EFCs		Metro GIS data (2018); LA County Dept. of Parks and Rec.
			Affordable housing within ½ mile of high quality transit in EFCs	Federal, State, and County-Administered Affordable Housing Units in EFCs within 1/2 mile of high quality transit		California Housing Partnership Corporation - LA County Annual Housing Outcome Report (2018)

		Percent of household income spent on combined transportation and housing costs in EFCs	Percent of household income spent on combined transportation and housing costs in EFCs		US Census Bureau ACS (2017), Metro Travel Demand Model (2017)	
		Air quality pollutants in EFCs	Grams of quality criteria pollutants in EFCs (Ozone, Particulate Matter, NO _x , SO _x , CO)		South Coast Air Quality Management District Metro Travel Demand Model & ARB EMFAC CalEnviroscreen (tract-level). EPA EJScreen.	
		Percent of activity centers in EFCs within 10-minute walk or roll of high quality transit	Percent of activity centers in EFCs within 10-minute walk or roll of high quality transit		LA County Location Management System, Metro Travel Demand Model (2017)	
		Percent of roads and highway bridges in good and fair condition in EFCs	Percent of roads and highway bridges in good and fair condition in EFCs		Pavement management system (Caltrans)	
	6	Reduce household costs spent on transportation and housing	Affordable housing within ½ mile of high quality transit	Federal, State, and County-Administered Affordable Housing Units within 1/2 mile of high quality transit		California Housing Partnership Corporation - LA County Annual Housing Outcome Report (2018)
			Percent of household income spent on combined transportation and housing costs	Percent of household income spent on combined transportation and housing costs		US Census Bureau ACS (2017), Metro Travel Demand Model (2017)
	7	Promote economic vitality	Jobs within 1/2 mile of high quality transit	Jobs within 1/2 mile of high quality transit		US Census Bureau's: - Longitudinal Employer-Household Dynamics - Census Transportation Planning Products Metro Service Planning data

		Regional economic growth attributable to transportation investments	Regional economic growth attributable to transportation investments		Regional Economic Models Inc (REMI) TranSight	
		Regional jobs attributable to transportation investments	Regional jobs attributable to transportation investments		Regional Economic Models Inc (REMI) TranSight	
	8	Improve environmental quality and resilience	GHG emissions	Tons of carbon dioxide equivalent (CO ₂ e)		Metro Travel Demand Model and ARB EMFAC CalEnviroscreen (tract-level). EPA EJScreen.
			Air quality pollutants	Grams of quality criteria pollutants (Ozone, Particulate Matter, NO _x , SO _x , CO)		South Coast Air Quality Management District Metro Travel Demand Model and CARB's Emissions Factor Model (EMFAC) CalEnviroscreen (tract-level). EPA EJScreen.
	9	Enhance public health and quality of life	Percent of activity centers within 10-minute walk or roll of high quality transit	Percent of activity centers within 10-minute walk or roll of high quality transit		LA County Location Management System. Metro GIS data (2018), Metro Travel Demand Model (2017)
			Active transportation mode share	% of trips made by bicycle or walking	Bike, walk	California Household Travel Survey (2012) National Household Travel Survey (2017) US Census Bureau ACS (2017)
Goal 4: Transform LA County through regional collaboration and national leadership	10	Manage roadway congestion	Vehicle hours of delay per capita	Vehicle hours of delay per capita		Metro Travel Demand Model (2017)
			Vehicle miles traveled per capita	Vehicle miles traveled per capita		Metro Travel Demand Model (2017)
			Total person throughput	Total person throughput = (PMT/PHT) X (PMT/VMT)		Metro Travel Demand Model (2017)
			Average roadway incident clearance time	Average roadway incident clearance time		California Highway Patrol

	11	Increase share of travel by non-SOV modes	Annual transit trips	Annual transit trips		Metro Travel Demand Model (2017)
			SOV mode share	SOV mode share	SOV	Metro Travel Demand Model (2017) National Household Travel Survey (2017)
	12	Support efficient goods movement	Truck vehicle hours of delay	Truck vehicle hours of delay	Truck	Metro Travel Demand Model (2017)
			Truck travel time reliability	% variation in AM and Midday truck travel time (in minutes)	Truck	Metro Arterial Performance Monitoring Tool Metro Service Planning and Analysis group
Goal 5: Provide responsive, accountable, and trustworthy governance within Metro	13	Maintain a state of good repair of transportation assets	Percent of roads and highway bridges in good and fair condition	Percent of roads and highway bridges in good and fair condition		Caltrans Division of Maintenance Office of Pavement Management (PaveM); FHWA Highway Performance Monitoring System (HPMS)
			Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life	Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life		Metro Transit Asset Management (TAM) Plan
	14	Ensure accountability through transparent reporting practices	Progress toward project completion compared to financial forecast	% of projects delivered on-time and on-budget		Metro Office of Management and Budget, Metro Financial Forecast
			Legal and policy reports issued on time	Percent of legal and policy reports issued on time		Metro Office of Management and Budget, Management Audit Services Division (MASD)

Note: Metro's Office of Extraordinary Innovation is currently exploring the acquisition of big data sources. Any future big data acquisition will be used for validation of these metrics and may be incorporated into future methodologies and evaluations.

Long Range Transportation Plan Update



Planning & Programming Committee

Item 18

June 19, 2019

Baseline Understanding Framework

Baseline Understanding Framework Contains:

- Travel Demand Model 2
Analysis of current travel patterns and other research for the existing system
- Communities
Socio-demographic information/differences/trends about who Metro serves
- Partnerships
Strategic plans and inter-agency efforts

Values Framework

Values Framework Contains:

- Discussion of values, guiding principles, objectives based on Vision 2028 goals
- Performance measures with equity specific performance
- ❖ **Equity Context using 1st Pillar of Equity Platform -**
 - Define & Measure:**
 - Identify Equity Focus Communities (EFCs) & impacts of planned investments (EFC-specific & Countywide)**
 - Scenario testing (results TBD)

How do we define equity in the LRTP?

Potential Demographic Factors With Inequity Impacts	% Population
Income* (< \$35,000 annually)	32%
Race* (Non-white)	73%
Family structure (Single-parent household)	6%
Car ownership* (Zero-car households)	9%
English speaking (Limited English household)	14%
Housing tenure (Renter)	54%
Senior (Over 65)	12%
Disability (Household with at least one person with a disability)	22%

*Demographic factors likely to be included in LRTP to identify EFCs



Metro

Proposed Scenario: 40% Low Income Concentration Threshold

- Highways
- Fixed guideway transit
- EFC Communities
30% of LAC Population

Census Tract Thresholds

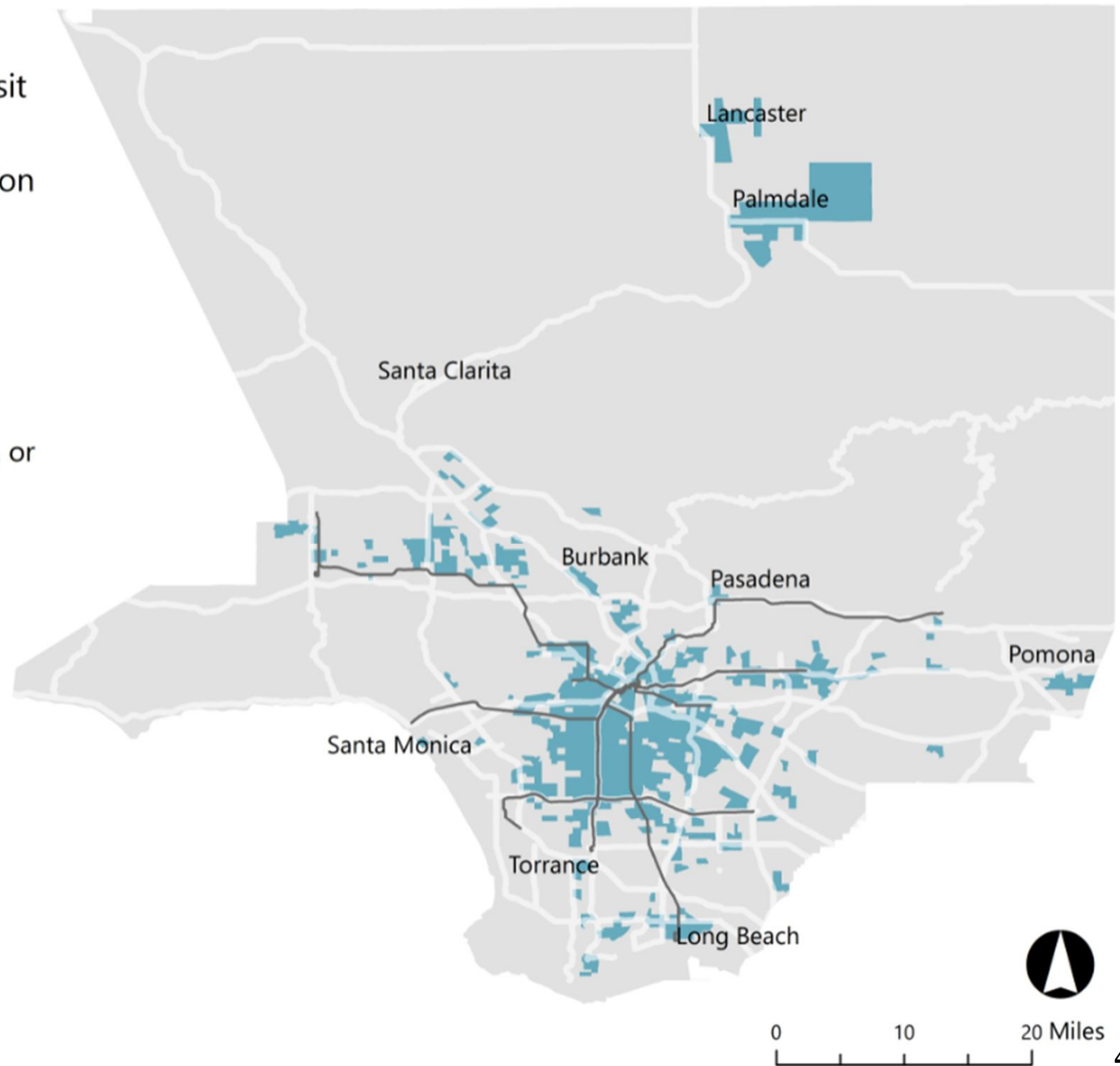
- > **40%** Low Income
- > **80%** Non-white
- > **10%** Zero Car

*Thresholds are based on:

- 1) Non-white AND Low Income, or
- 2) Low Income AND Zero Car

Guiding principles in developing the EFC scenario:

1. Capture a larger % of low income, non-white, and zero car households than the county average
2. Set thresholds for low income, non-white, and zero car households
3. Logic: must meet low-income and EITHER non-white OR zero-car thresholds.



Vision 2028: Goal 1

Provide high-quality mobility options that enable people to spend less time traveling

#	System Performance Objectives	DRAFT Performance Measures <i>Example</i>
1	Optimize the speed, reliability and performance of the transportation system	Travel time by mode
2	Provide high-quality mobility options for all	Percent of households and jobs within 10-minute walk or roll of high-quality mobility options

Vision 2028: Goal 2

Deliver outstanding trip experiences for all users of the transportation system

#	System Performance Objectives	DRAFT Performance Measures <i>Example</i>
3	Improve transportation system safety and security	Part I & II crimes reported on Metro transit system
4	Maintain a high level of customer satisfaction	Customer satisfaction with Metro bus, rail, and Express Lanes systems

Vision 2028: Goal 3

Enhance communities and lives through mobility and access to opportunity

#	System Performance Objectives	DRAFT Performance Measures <i>Examples</i>
5	Promote access to opportunity in Equity Focus Communities	<hr/> Percent of EFC households within 10-minute walk or roll of high quality transit <hr/> Percent of household income spent on combined transportation and housing costs in EFCs <hr/>

Vision 2028: Goal 3

Enhance communities and lives through mobility and access to opportunity

#	System Performance Objectives	DRAFT Performance Measures <i>Example</i>
6	Reduced household costs spent on transportation and housing	Percent of household income spent on combined transportation and housing costs
7	Promote economic vitality	Regional jobs attributable to transportation investments
8	Improve environmental quality and resilience	Green House Gas emissions
9	Enhance public health and quality of life	Active transportation mode share

Vision 2028: Goal 4

Transform LA County through regional collaboration and national leadership

#	System Performance Objectives	DRAFT Performance Measures <i>Example</i>
10	Manage roadway congestion	Vehicle hours of delay per capita
11	Increase share of travel by non-SOV modes	Annual transit trips
12	Support efficient goods movement	Truck vehicle hours of delay

Vision 2028: Goal 5

Provide responsive, accountable, and trustworthy governance within Metro

#	System Performance Objectives	DRAFT Performance Measures <i>Example</i>
13	Maintain a state of good repair of transportation assets	Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life
14	Ensure accountability through transparent reporting practices	Progress toward project completion compared to financial forecast

