

## Appendix 2-E EPET Findings

### II. ANALYZE DATA

The LB-ELA Corridor planning process was informed by extensive qualitative and quantitative data analysis to identify existing conditions, needs, and disparities among various communities within the Corridor as well as compared with the County. Based on the issues and opportunity areas identified for the Investment Plan, data were primarily analyzed for socioeconomic conditions, environmental conditions, community health, and travel patterns related to mode share, emissions, throughput, and safety. Community survey data and anecdotal insights from CLC and Task Force members were used to supplement and groundtruth quantitative data to gain a more comprehensive understanding of the LB-ELA Corridor communities.

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#### DATA SOURCES

Due to the size of the study area and scope of the Investment Plan, data were required to be broadly and consistently available at the countywide or regional level, across jurisdictions. Therefore, more localized data that might typically be considered for a single transportation project were not available or able to be analyzed for the entire study area. Given the early stages of project development, most individual projects in the Investment Plan will be evaluated using localized data as they go through design, environmental review, and implementation processes. Data from the following sources were applied in the analysis of existing conditions:

#### Data Sources

<b>Socioeconomic and Demographic</b>	<ul style="list-style-type: none"><li>&gt; US Census and American Community Survey</li><li>&gt; 2019 Longitudinal Employer-Household Dynamics (LEHD)</li><li>&gt; Urban Displacement Project Estimated Displacement Risk Index</li><li>&gt; University of Richmond - Mapping Inequality</li></ul>
<b>Environmental</b>	<ul style="list-style-type: none"><li>&gt; Office of Environmental Health Hazard Assessment (OEHHA) CalEnviroScreen 4.0</li><li>&gt; Southern California Air Quality Management District (SCAQMD) Multiple Air Toxics Exposure Study V (MATES V) (2021)</li><li>&gt; SCAQMD Air Quality Management Plan Health Effects Appendix (2022)</li><li>&gt; National Land Cover Database</li><li>&gt; Los Angeles County Park Needs Assessment</li><li>&gt; Southern California Association of Governments (SCAG) Land Use Map</li><li>&gt; EnviroStor Cleanup Sites Database</li></ul>
<b>Community Health</b>	<ul style="list-style-type: none"><li>&gt; OEHHA CalEnviroScreen 4.0</li><li>&gt; Public Health Alliance of Southern California</li><li>&gt; Emergency Department and Patient Discharge Datasets from the State of California, Office of Statewide Health Planning and Development (OSHPD)</li><li>&gt; SCAQMD MATES V</li></ul>
<b>Travel Patterns</b>	<ul style="list-style-type: none"><li>&gt; LA Metro Ridership Data</li><li>&gt; LA Metro Arterial Performance Measurement (Measure Up)</li><li>&gt; SCAG Regional Travel Demand Model</li><li>&gt; SCAG Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy)</li><li>&gt; SCAG Bicycle Routes Data</li><li>&gt; LA County Bikeways Data</li><li>&gt; Cambridge Systematics' location-based services data (LOCUS)</li><li>&gt; The National Performance Management Research Data Set (NPMRDS)</li><li>&gt; California Highway Patrol Statewide Integrated Traffic Records System (SWITRS)</li><li>&gt; Port Transportation Analysis Model (PortTAM)</li><li>&gt; Caltrans Performance Measurement System (PeMS)</li><li>&gt; Caltrans Traffic Accident Surveillance and Analysis System (TASAS)</li><li>&gt; Transportation Injury Mapping System (TIMS)</li></ul>

Qualitative and anecdotal data were also gathered through a series of in-person public engagement events in partnership with community-based organizations, and online through the Social Pinpoint mapping tool and survey.<sup>1</sup> A literature review of previous planning studies related to the Corridor and relevant issues throughout the region also contributed to an understanding of existing conditions; however, the literature review was conducted with consideration of the age, biases, and relevance of documents and sources.

The Project Team prepared an initial geospatial analysis in late 2021, which included maps displaying the range of conditions across Corridor communities, in addition to charts and other data visualizations to add detail and enhance understanding of Corridor conditions. This analysis was guided by the following questions:

- Where is the LB-ELA Corridor study area?
- Who lives and works in the LB-ELA Corridor study area?
- What mobility options, trends and challenges exist in the LB-ELA Corridor study area?
- What are the community impacts experienced in the LB-ELA Corridor study area?

Maps, graphics, and key findings from this analysis are included in the presentation in

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<sup>1</sup>A series of thirty-eight (38) community workshops and meeting presentations were conducted along the corridor between September and November 2022. With the support from local CBOs, the public outreach team also hosted eighteen (18) events along the corridor including pop-up events to support the notification and engagement efforts to gather input from different communities. The Social Pinpoint survey and interactive mapping tool (<https://arellano.mysocialpinpoint.com/metro-710-task-force/map#/>) was originally open from August 2, 2022, through September 8, 2022, and the response period was extended twice: to October 15, 2022, and once more to November 14, 2022, to accommodate more time for public feedback from community members. These efforts collected a total of 1,920 surveys and 985 mapping comments from the public during this phase.

Appendix A. Initial Existing Conditions Analysis.

**Initial Existing Conditions Data Analyzed**

<b>Study Area</b>	> Study Area and Jurisdictional Boundaries
<b>Socioeconomic and Demographic Characteristics</b>	<ul style="list-style-type: none"> <li>&gt; Population Density (persons per net acre)</li> <li>&gt; Employment Density (employees per net acre)</li> <li>&gt; Jobs by Industry Sector (commercial, professional services, industrial, other services)</li> <li>&gt; Race and Ethnicity</li> <li>&gt; Household Income</li> <li>&gt; Poverty Level</li> <li>&gt; Age</li> <li>&gt; Percentage of Individuals with a Disability</li> <li>&gt; Vehicle Ownership</li> </ul>
<b>Mobility Options, Trends, and Challenges</b>	<ul style="list-style-type: none"> <li>&gt; Freeway and Arterials</li> <li>&gt; Transit Services</li> <li>&gt; Metro Rail Boardings (daily average)</li> <li>&gt; Bicycle Facilities</li> <li>&gt; Bicycle and Pedestrian Gaps</li> <li>&gt; Existing Land Uses</li> <li>&gt; Commuters by Mode (work from home, transit, walk/bike, carpool, drive alone)</li> <li>&gt; Arterial Roadway Daily Vehicle Hours of Delay</li> <li>&gt; Arterial Roadway Speeds (morning and evening)</li> <li>&gt; I-710 Freeway Speeds (morning and evening)</li> <li>&gt; Bottlenecks along I-710 (northbound and southbound)</li> <li>&gt; I-710 Daily Vehicle and Person Trips</li> <li>&gt; Daily Vehicle Miles Traveled (VMT)</li> <li>&gt; I-710 Daily Truck Trips</li> </ul>
<b>Community Impacts (Health &amp; Safety)</b>	<ul style="list-style-type: none"> <li>&gt; Bicyclist and Pedestrian Crash Data (location and severity)</li> <li>&gt; Truck Crashes (location and severity)</li> <li>&gt; All Vehicle Crashes (location and severity)</li> <li>&gt; I-710 Crashes (location and severity)</li> <li>&gt; Particulate Matter 2.5 (micrograms per meter<sup>3</sup>)</li> <li>&gt; Diesel Particulate Matter (annual tons)</li> <li>&gt; Asthma Rate (hospitalizations)</li> <li>&gt; Cancer Risk (exposure to air toxics)</li> <li>&gt; Ground Toxins Cleanup Sites</li> </ul>

The initial existing conditions analysis was presented to the Task Force, CLC, and Working Groups for discussion, including input on additional metrics that should be added to the analysis, specifically from an equity perspective. A subsequent existing condition analysis produced for discussion with the Equity Working Group incorporated new metrics based on community and Task Force input, and applied Metro’s Equity Focus Communities as an overlay to identify patterns and disparities in conditions for EFC and non-EFC areas within the Corridor. Maps, graphics, and key findings from this analysis are included in the presentation in *Appendix B. EFC-Based Existing Conditions Analysis*.

**EFC-Based Existing Conditions Data Analyzed**

<b>Equity Focus Communities</b>	<ul style="list-style-type: none"> <li>&gt; EFC Areas (all)</li> <li>&gt; EFC Areas by Equity Tier</li> </ul>
<b>Socioeconomic and Demographic</b>	<ul style="list-style-type: none"> <li>&gt; Poverty Rate by Race/Ethnicity within Corridor</li> <li>&gt; Percent Renter by Race/Ethnicity within the Corridor</li> </ul>
<b>Health &amp; Safety</b>	<ul style="list-style-type: none"> <li>&gt; Diesel Particulate Matter (+ overlay with EFCs)</li> <li>&gt; Collisions involving Bicyclists or Pedestrians (+ overlay with EFCs)</li> <li>&gt; Tree Canopy (+ overlay with EFCs, Zero-Vehicle Households)</li> </ul>

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<b>Infrastructure &amp; Amenities</b>	> Park Need (+ overlay with EFCs)
	> 2045 High Quality Transit Areas (+ overlay with EFCs, Population Density, Zero-Vehicle Households)
<b>Economic Opportunities</b>	> Employed Population (+ overlay with EFCs)
	> Employed Population with >45 Minute Commute Time (+ overlay with EFCs)
<b>Essential Needs</b>	> Supermarket Access (+ overlay with EFCs)

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## DATA ANALYSIS SUMMARY

As outlined above, an extensive collection of data was analyzed throughout the early stages of the Task Force and Investment Plan process. This section of the documentation presents selected findings from this analysis in response to the following questions from the EPET:

- **2.b.** Is there an impacted geographic area? If so, what is the geographic area?
- **2.c.** What are the demographics of impacted area, users, or other community?
- **2.d.** What does the data tell us about existing community disparities in race, ethnicity, and income, that may influence the proposed action's outcomes?

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## Impacted Areas

Drawing on the findings of existing conditions analysis, this EPET documentation focuses on two geographies as 'impacted areas' of the LB-ELA Corridor Investment Plan:

1. The full **LB-ELA Corridor** area - Shown in blue against LA County in yellow in **Error! Reference source not found.**
2. Metro's **Equity Focus Communities (EFCs)** within the LB-ELA Corridor - Shown in pink in **Error! Reference source not found. Error! Reference source not found.** EFCs are the census tracts identified by Metro's Office of Equity and Race, which have higher concentrations of low-income households, residents who are Black, Indigenous, and other People of Color (BIPOC), and share of households with no access to a car. People in these census tracts lack access to mobility and face more mobility barriers compared to non-EFC census tracts.

Figure 2. LB-ELA Corridor Study Area (LA County Context)

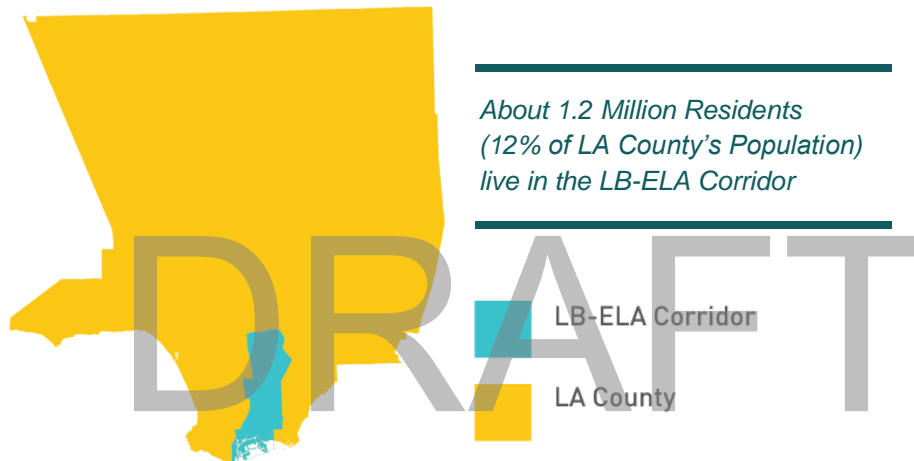
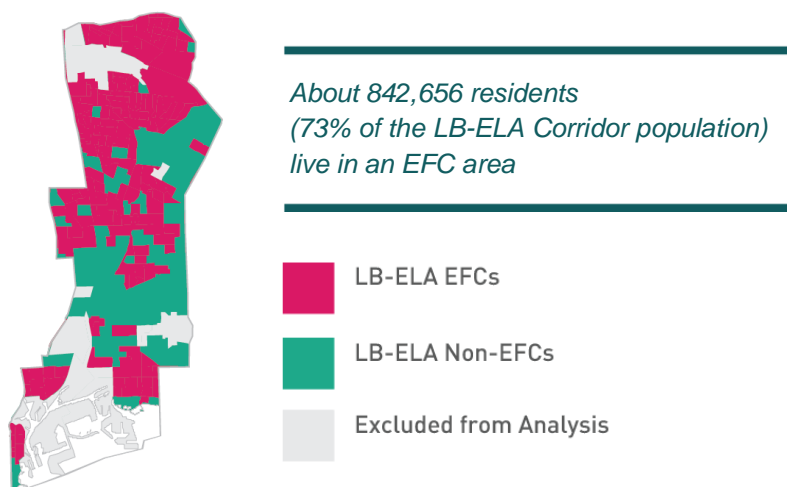


Figure 1. LA Metro Equity Focus Communities (LB-ELA Corridor Context)



In reference to the maps above, figures throughout this section utilize color-coding to compare data for these four geographic extents to highlight key characteristics and disparities within the impacted areas: LA County (yellow), the LB-ELA Corridor area (blue), LB-ELA EFC areas (pink), and LB-ELA non-EFC areas (green).

### Demographics of Impacted Areas

The LB-ELA Corridor is home to approximately 1.2 million residents, 73% of which live in EFC areas. As shown in **Error! Reference source not found.**, the LB-ELA Corridor and EFCs within the corridor both have relatively high youth populations and relatively low senior populations compared to the County and Non-EFCs in the corridor, respectively.<sup>2</sup> The Corridor's average household size is 3.9, which is about 30% higher than the County's average.<sup>3</sup>

As shown in **Error! Reference source not found.**, The LB-ELA Corridor as a whole and EFCs in the Corridor are majority-BIPOC, both with substantially higher shares of Latino residents, and lower shares of white and Asian residents compared to the County and Non-EFCs in the corridor. The share of Black or African American residents is relatively similar across geographies.<sup>4</sup> Historical census data shows that the share of Black residents has declined substantially in many LB-ELA corridor communities since the 1980s, as the share of Latino residents increased. Change in the Corridor's racial and ethnic composition over time is discussed further in Section 3: Engage the Community.

Despite its importance to the regional economy, the Corridor has a slightly lower average percentage of the workforce who are employed (71%) than LA County (74%), with a majority of the Corridor's lowest employment rates (as low as 49%) associated with EFCs.<sup>5</sup> The Corridor's manufacturing history and proximity to the ports have created a largely industrial and commercial economy, with nearly twice the share of industrial jobs in the Corridor (29%) as in the County as a whole (16%), and a lower share of service and professional jobs.<sup>6</sup> Likewise, the study area has more industrial and residential land uses than the County as a whole,<sup>7</sup> with proximity between residential and industrial land uses contributing to pollution impacts and associated health risks.

The Corridor's median household income (\$56,005) is substantially lower than the County's (\$75,887),<sup>8</sup> and analyzed across income groups, the Corridor has a lower share of high-income households than the County. Similarly, the share of households below the poverty level is high in the Corridor compared to LA County as a whole.<sup>9</sup>

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<sup>2</sup> Data from the 2015-2019 American Community Survey 5-year estimates.

<sup>3</sup> U.S. Census

<sup>4</sup> Data from the ACS 2019 5-year estimate: 74.6% Hispanic or Latino, 8.9% NH Black or African American, 8.6% NH White, 5.9% NH Asian, 1.3% Multiple Races, 0.3% NH, Native Hawaiian or Pacific Islander, 0.2% Other.

<sup>5</sup> East Los Angeles, Commerce, Compton, East Compton, Long Beach, Wilmington, and San Pedro.

<sup>6</sup> Data from 2019 Longitudinal Employer-Household Dynamics.

<sup>7</sup> SCAG Land Use Map, land use in square feet.

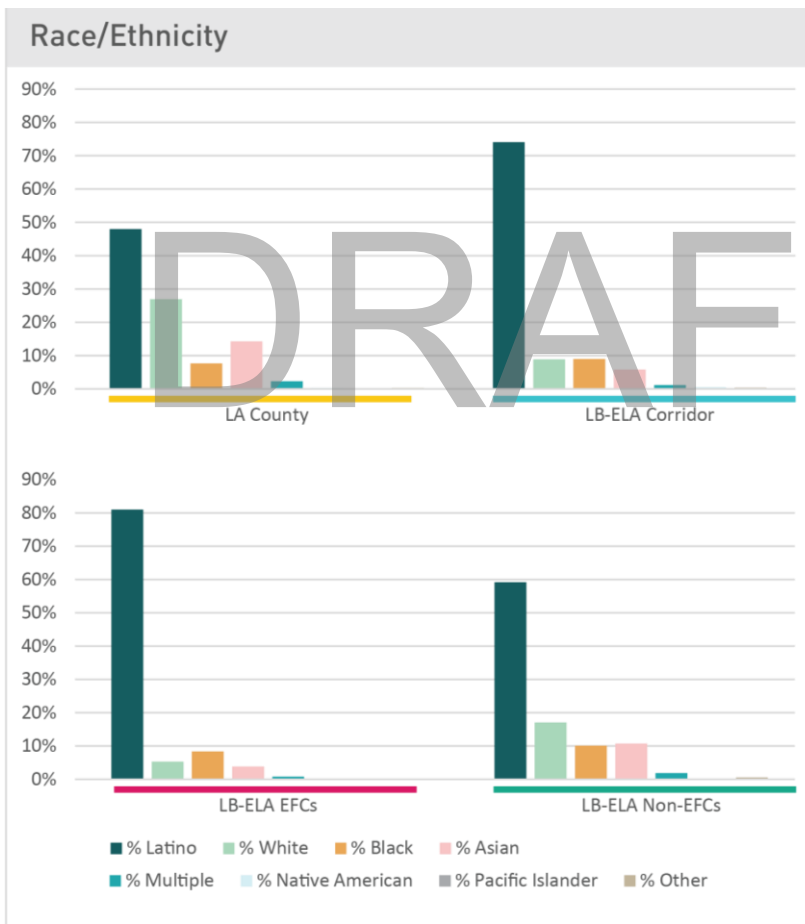
<sup>8</sup> Data from 2015-2019 American Community Survey.

<sup>9</sup> Data from 2015-2019 American Community Survey.

Figure 3. Youth and Senior Age Groups



Figure 4. Race/Ethnicity



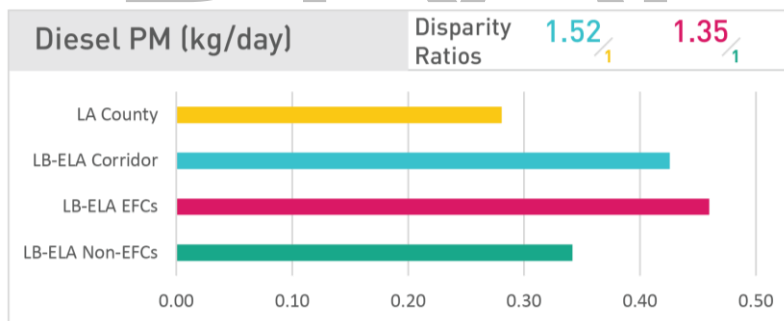
## Existing Community Disparities

Census data clearly demonstrates existing disparities in outcomes among demographic groups in the Corridor, such as the average per capita income of \$33,870 for non-Hispanic white residents compared to \$18,297 for Hispanic or Latino residents.<sup>10</sup> Due to the size of the study area and wide range of relevant data sets, it was not possible to disaggregate all data related to environmental conditions, infrastructure, or services by race/ethnicity or income levels. However, Metro’s Equity Focus Communities were applied as an overlay and geoprocessing filter to document disparities for areas with the highest concentrations of low-income households, BIPOC residents, and share of households with no access to a vehicle.

In the equity-focused existing conditions analysis, the Project Team explored key data points related to the Corridor’s equity issues and opportunity areas, measuring access to health and safety, economic opportunities, infrastructure and amenities, and essential needs in the Corridor, and using the EFC overlay to identify disparities. In most of these data points we see a consistent pattern of disparity - the LB-ELA Corridor facing greater burdens than the rest of the County, and EFCs facing greater burdens than the non-EFC areas within the Corridor. Key findings of this analysis are summarized below. Some selected metrics are illustrated in charts with disparities summarized as ratios of the score for the County to the Corridor, and the score for Corridor EFCs to Corridor non-EFCs.

The most critical disparity facing both the Corridor, and Corridor EFCs, is exposure to Diesel Particulate Matter pollution (*Figure 5*), with substantial disparities in rates of hospitalization for asthma (**Error! Reference source not found.**) and cardiovascular disease (*Figure 8*) also facing impacted areas. Data shows slight PM2.5 disparities (*Figure 6*) facing impacted areas, but suggests that major variations in PM2.5 generally occur at a larger, regional scale.

Figure 5. Diesel Particulate Matter



<sup>10</sup> Data from the U.S. Census, Findings by race: NH White (\$33,870), Asian (\$29,904), Black/African American (\$25,120), Other (\$18,540), Latino/Hispanic (\$18,297).

Figure 6. Particulate Matter 2.5

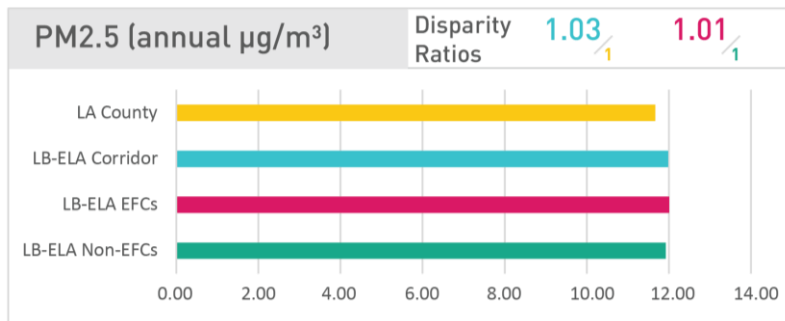


Figure 7. Asthma

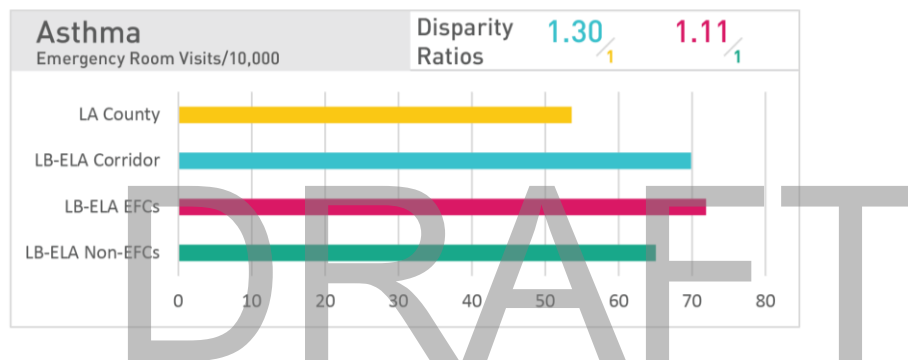
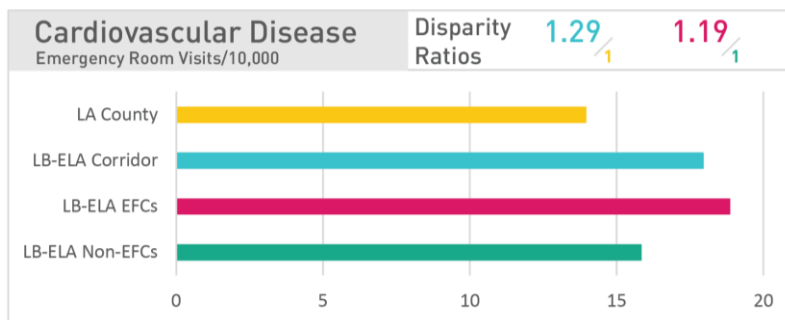


Figure 8. Cardiovascular Disease



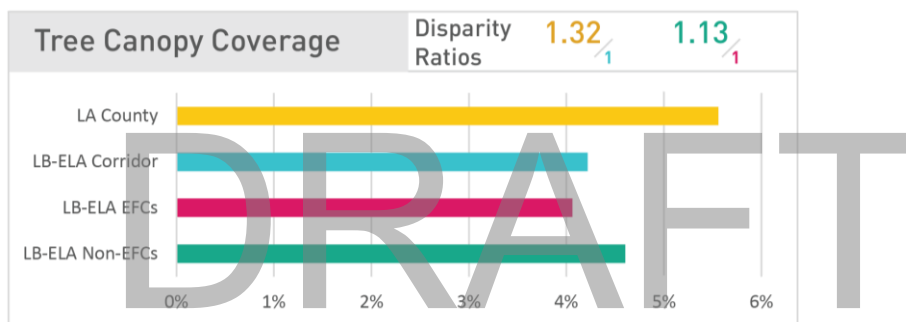
Health and transportation infrastructure are linked not only through the health impacts of exposure to vehicle-based pollution, as demonstrated above, but also through the conditions that allow people to safely travel by foot, bicycle, or other modes that increase physical activity. Access to high quality active transportation and transit options is especially critical for zero-vehicle households. The average percent of households without a vehicle in the Corridor is 9.3%, and 11.4% in study area EFCs, compared to 8.7% in the County.

Active transportation infrastructure is lacking throughout the Corridor, particularly throughout much of the northern Corridor cities. Much of the existing active transportation network suffers from fragmentation and maintenance issues, with few safe active transportation connections across the I-710 and LA River.<sup>11</sup>

Fortunately, transit access is not an area of disparity for the Corridor or EFCs. A substantial portion of the study area (78%) is located within SCAG’s 2045 High Quality Transit Areas (HQTAs), a designation based on the planned transit system according to the SCAG 2020-2045 Regional Transportation Plan. An even higher proportion of study area EFCs are located in 2045 HQTAs (85%), while only 60% of LA County falls within a 2045 HQTAs.

A dense and healthy tree canopy provides numerous benefits at the nexus of environmental health, air quality, physical health, and walkability. As shown in *Figure 9*, the Corridor and EFCs face a disparity in tree canopy coverage. Average tree canopy (the percentage of land covered by tree canopy, weighted by people per acre) in LA County is 5.5%, compared to 4.2% in the Corridor. In EFC areas within the study area, tree canopy is slightly lower at 4.1%, compared to non-EFCs at 4.6%.<sup>12</sup>

Figure 9. Tree Canopy Coverage



On their surface, socioeconomic disparities such as employment rates and housing cost burden may seem disconnected from transportation planning, however major infrastructure investments can have substantial impact on employment opportunities through introduction of new jobs, and increased access to job centers. New investments can also have potential impacts on housing stability and economic displacement pressure. For these reasons, it is important to understand the Corridor’s existing conditions and disparities. As shown in *Figure 10*, ACS data indicates that people in the Corridor and EFCs experience moderate disparities in unemployment rates. In *Figure 11*, ACS data indicates a notable disparity in the share of Housing Burdened Low-income Households in EFCs (27%) compared to non-EFCs in the Corridor (19%).<sup>13</sup>

<sup>11</sup> Bikeways Data from Southern California Association of Governments and LA County

<sup>12</sup> CDPH/National Land Cover Database, accessed via the California Healthy Places Index

<sup>13</sup> Data from the 2015-2019 American Community Survey 5-year estimates

Figure 10. Unemployment

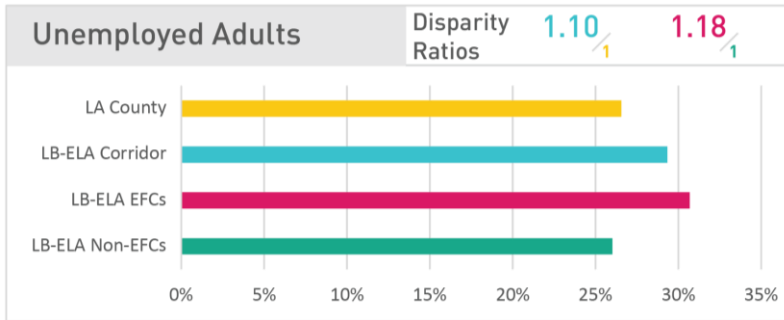
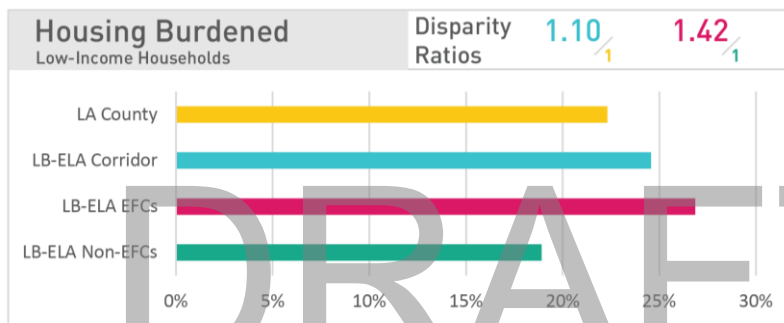


Figure 11. Housing Burden



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