

Transportation

**“My feet is weary, but my soul is rested.”
—Mother Pollard, Montgomery Bus Boycott Participant**

Historical Overview

Transportation is the circulatory system of our communities. It allows us to access our schools, jobs, and goods and services like grocery stores and childcare centers, while providing us opportunities to connect with our friends, family, and communities. Access to this most basic service, however, has not and is not available to all. A review of some U.S. history explains why there is unequal access. In 1896, through *Plessy v. Ferguson*, a case regarding the legality of separate railway cars for African Americans and Whites, the U.S. Supreme Court ruled in favor of the “separate but equal” doctrine. Transportation issues were integral to the start of the Civil Rights Movement, as demonstrated with the Montgomery Bus Boycott and Freedom Rides.¹ *White Brown v. Board of Education* began the demise of the “separate but equal” doctrine, new transportation policies were being created that devastated low-income communities and communities of color. During the 1950s and 1960s the Federal Highway Administration funded highway projects that were often routed through urban communities of color, leading to displacement, contributing to increased segregation, and exposing remaining residents to harmful air pollutants.¹ Finally, during the same time period, federal funding that favored highways over public transit facilitated the movement of jobs from central cities to outer suburbs and left whole communities without access to affordable transportation by which to get to those jobs—a situation that exploded in civil unrest in Los Angeles in 1965.²

These transportation policies as well as others have limited the life chances and harmed the health of communities of color and low-income populations across the nation and in Alameda County. They have restricted access to important societal resources and disrupted communities. In spite of some affirmative steps on the part of the federal, state, and local governments, as well as transportation agencies themselves, inequitable transportation policies persist.

What Research Tells Us

Transportation Access and Affordability: Low-Income Households Face Trade-offs

In communities that rely on public transportation, known as transit-dependant communities, affordable and accessible transportation is vital for accessing employment, goods and services, and medical care. Low-income parents identify transportation difficulties, such as high costs and inaccessibility, as a significant barrier to obtaining routine medical care for themselves and their children.³ Transportation is also a significant barrier to reaching food and retail options for the transit dependent. Residents in low-income communities are less likely to own a car and 3 times less likely to have a grocery store within their neighborhood.⁴ Therefore these residents rely more heavily on mass transit to complete their shopping. If mass transit is unreliable or otherwise inaccessible, residents are forced to shop within their neighborhoods. For low-income neighborhoods, this generally means shopping at smaller stores with substantially less healthy food at higher prices (see Food Access and Liquor Stores section).⁵ This can lead to food insufficiency and insecurity—the lack of access to enough food to fully meet basic needs at all times—in vulnerable populations, while contributing to the risk of overweight and obesity.

Unavailable or unreliable transportation is a factor in people's ability to take and keep a job, making access to transportation a determinant of employment opportunities. In Atlanta, Portland,⁶ and Los Angeles,⁷ researchers found significant employment effects from increased bus access and improved accessibility to employment hubs. Studies have also shown that single women receiving public assistance without access to a personal automobile experience employment benefits from increased transit access.⁸ Employment in turn, is associated with better mental and physical health in

employees and their families (see Income and Employment section).

Focus on Automobiles: Air Pollution, Climate Change and Communities of Color

Federal transportation policies promoting the widespread use of the automobile have particularly affected the health of low-income communities and communities of color through multiple and converging pathways. Federal transportation investments in highways, which consistently dwarfed those in public transit,¹ promoted post-World War II suburban development. Development of outlying areas combined with discriminatory housing policies led to reinforced segregation and the associated negative community conditions and health consequences (see Segregation section).¹ Furthermore, many highway projects in the 1950s and 1960s were constructed through low-income communities and communities of color without involving members of these communities in the planning processes.¹ Households were displaced, communities became isolated, protective social bonds were broken and remaining residents were exposed to air pollution from cars and other motorized sources.

Low-income people and people of color continue to be more likely than affluent people and White people to live near freeway interchanges.⁹⁻¹¹ As a result, pollution is often heavier in these communities, as are the ill-health effects¹² (see Air Quality section). The impact of the widespread use of cars extends beyond air quality issues, however. Given that motorized vehicles are the largest source of air pollution in the United States,¹³ cars are contributing to climate change. Climate change may increase rates of health problems affected by extreme weather events and greenhouse gas emissions, as well as facilitate the growth of water-, food-, vector-, and rodent-borne disease.¹⁴ Generally, everyone is threatened by climate change, but the most seriously affected people will certainly be the poor. In the U.S., low-income people and people of color are at

particular risk in part because their health is already disproportionately compromised, they are more likely to be socially isolated (see Social Relations and Community Capacity section), and they command fewer resources to prepare for and respond to disasters such as extreme weather events. This was seen in the aftermath of Hurricane Katrina and Rita, as well as in the week-long Chicago heat wave of 1995,¹⁵ both of which are examples of extreme weather events that are expected to increase with climate change.

I Can't Hear Myself Think: Noise Pollution and Low-Income People's Health

Noise pollution, much of which comes from transportation sources,¹⁶ is more prevalent in low-income communities. As far back as the 1970s, the U.S. Environmental Protection Agency was warning of negative correlations between household income and neighborhood noise levels.¹⁷ More recently, researchers have found that the situation is no better now than it was thirty years ago—low-income communities continue to be more vulnerable to the health effects of noise pollution such as hearing loss, hypertension, heart conditions and mental stress.¹⁸

Active Transportation: The Benefits and Risks of Biking and Walking

The positive health impacts of walking and biking to complete daily activities—known as active transport—are indisputable. Recent studies reveal that increasing and improving pedestrian and bicycle facilities, including sidewalks, bike lanes, lighting, traffic calming devices, and more, reduce driving and promote physical activity. Promoting physical activity can improve health outcomes especially in low-income communities of color who tend to have fewer opportunities to exercise and eat healthy food in their neighborhoods (see Physical Activity and Food Access and Liquor Stores sections).

Despite the health benefits, in many U.S. cities walking and bicycling are not only inconvenient, but also unsafe. Pedestrians and cyclists are several times more likely to be killed in a motor vehicle crash than car occupants. Rates of injuries to pedestrians and bicyclists are even higher in poor neighborhoods, as they often lack the structural factors, such as sidewalks and bike lanes, that make biking and walking safe, as well as carry high traffic volume and high speeds.²⁰⁻²² For these communities, the positive health impacts of active transportation could be outweighed by the serious threat of injury. Given that driving rates (as measured by vehicle miles traveled) are highly correlated with pedestrian and bicyclist safety, strategies that discourage driving in favor of bicycling and walking will help improve overall safety. This is especially important in low-income communities where active transportation tends to be low.

A Look at Alameda County

Transportation Costs and Transit Dependency

In Alameda County, low-income households dedicate a larger share of their income to transportation costs than those with higher incomes (Figure 37). For instance, the average household earning less than

Figure 37: Income Dedicated to Transportation Costs by Household Income, Alameda County

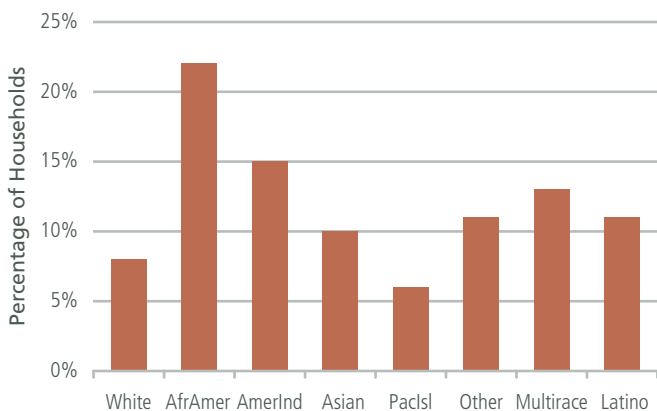


Source: Benedict A, Dawkins C, Haas P, Makarewicz C, and Sanchez T, 2006.

\$20,000 per year spends over half its income on transportation compared to 7% of income among the average household earning \$100,000 per year.²³ Moreover, there is national evidence indicating that transportation costs are increasing at a faster rate for low-income households than for higher income households.¹

Alameda County has the second highest rate of zero-vehicle households in the Bay Area; over 1 in 10 Alameda County households did not own a car in 2000.²⁴ These households are considered transit dependent. As demonstrated in Figure 38, nearly a quarter of all African American households in Alameda County do not own a vehicle—a much higher proportion than all other racial/ethnic groups.

Figure 38: Transit-Dependent Households by Race/Ethnicity, Alameda County, 2000



Source: Census 2000.

Low-income households are more likely than high-income households to be transit dependent. One in 4 low-income households in Alameda County did not own a car in 2000. The proportion of transit-dependent households decreases with higher income.

Unequal Transit Funding, Service Cuts and Reliability

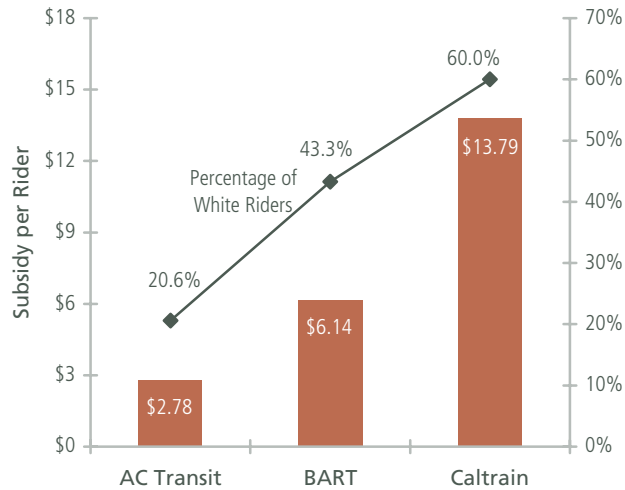
The transit-dependent are more likely to be served by low-subsidized, unreliable transportation. Of the two major public transit providers serving Alameda

County—AC Transit and Bay Area Rapid Transit (BART)—AC Transit serves more transit-dependent people than BART. Studies of ridership show that 61%²⁵ of AC Transit riders are transit dependent, whereas only 16%²⁶ of BART riders are transit dependent. AC Transit also serves the largest proportion of riders who use public transportation on a daily basis. Ridership studies have also found that 38% of AC Transit riders have household incomes of \$25,000 or below, while only 13% of BART riders have incomes at this low level. The racial composition of riders is also different: the typical AC Transit rider is most likely to be African American, while the typical BART rider is most likely to be White. Of all the transit operators in the Bay Area, AC Transit has the highest percentage of minority riders.²⁶

The amount one pays to ride public transit does not cover the cost of the trip. Therefore, transit providers utilize funding from Metropolitan Transportation Commission (MTC), as well as other sources, to make up the difference. Despite its comparatively high percentage of transit-dependent riders and low-income riders, AC Transit receives a smaller subsidy per passenger than BART. According to a class action lawsuit, *Darrensburg v. MTC*, the subsidy amount per passenger for 3 Bay Area public transit providers—AC Transit, BART, and Caltrain—increases as the percentage of White riders increases. (Figure 39 on page 83). (Although Caltrain does not serve Alameda County, it is included for comparison.) The MTC subsidy was \$2.78 per AC Transit rider, 20.6% of whom are White, and \$6.14 per BART rider, 43.3% of whom are White.²⁷ On May 23, 2006, the Alameda County Board of Supervisors passed a resolution urging MTC to increase the allocation of public funds in an effort to approach parity in subsidy levels.²⁸

Not only is there a disparity in subsidies, there is also a disparity in service level. Between 1986 and 2004, AC Transit has cut its overall level of service while BART has increased its level of service, even though all East

Figure 39: Public Subsidies and Race/Ethnicity of Riders



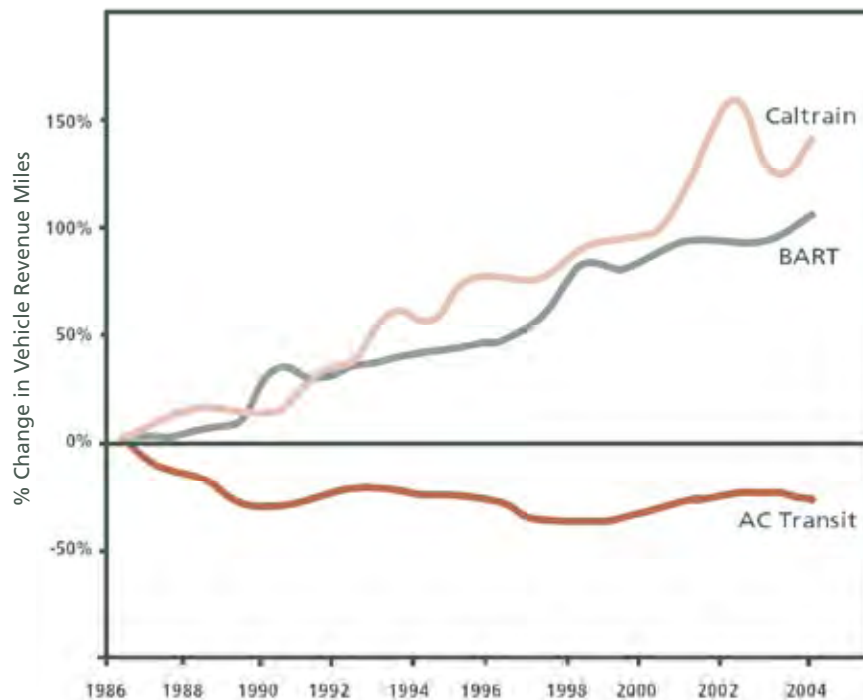
Source: Data from the National Transit Database, 1989-2003, as reported in Communities for a Better Environment, Urban Habitat, and Public Advocates, Inc., 2006.

Bay transit providers experienced similar declines in ridership over the same years (Figure 40).^{27,29,30}

Several factors may influence cuts to level of service, but government subsidies do have a direct correlation to level of service available. Regardless of the underlying causes, what is certain is that cuts to service have significant consequences for Alameda County's transit-dependent people. For example, according to a 2002 study, only 28% of the residents in our county's disadvantaged neighborhoods had transit access to a hospital and less than half of the same residents had access to a supermarket within a half-mile walk of their homes.³¹

A study of AC Transit service cuts between December 1995 and June 1996 found that the service cuts cost transit riders \$30.7 million in annual transit expense increases (between the time of the cuts and the time the study was completed in 1997). The study attributed the increase in travel expenses for riders to the need to close transit gaps left by the reduction in service with taxis and other, more expensive, forms of transportation.³² The study found other indirect costs due to service cuts, such as income losses and added travel time

Figure 40: Change in Levels of Service by Local Transit Operators, 1986-2004



Source: Data from the National Transit Database, as included in Darenburg et al. v. Metropolitan Transportation Commission, 2008.

Note: Level of service is based on *vehicle revenue miles*, which are total miles traveled by transit vehicles while carrying fare-paying customers.

(with riders' time calculated at \$5 per hour) brought the total costs of service cuts to AC transit riders to \$48.1 million.³²

Furthermore, cuts to service can decrease the reliability of transit. According to MTC, AC Transit, while serving the largest proportion of minority, low-income and transit-dependent riders, is the least reliable large transit operator in the Bay Area.²⁹ A third of all AC Transit buses are either early or more than 5 minutes late.

The Air Out There: Freeways and Communities of Color

Despite the need for improved public transit, federal policies historically have favored highways.¹ In Alameda County, significantly more African Americans and Latinos live within 500 feet of freeways compared to other race and ethnic groups, disproportionately exposing them to harmful chemicals and placing them at risk of negative health outcomes (see Air Quality section).

According to a case study by the Federal Highway Administration, when the Cypress Freeway was built in the 1950s it cut through the predominately African American community of West Oakland, dividing the community in half, displacing 600 families, and uprooting dozens of businesses.³³ The freeway became a physical barrier between one four-square-mile area in the western-most part of West Oakland and the more affluent, eastern sections of West Oakland and downtown. Residents, already living in the shadow of railway yards and the Port of Oakland, were then exposed to the air and noise pollution emitted from the heavy traffic overhead. In addition, residents attributed a large part of the economic decline in the community during the 1960s to the divisive impact of the Cypress Freeway.³³

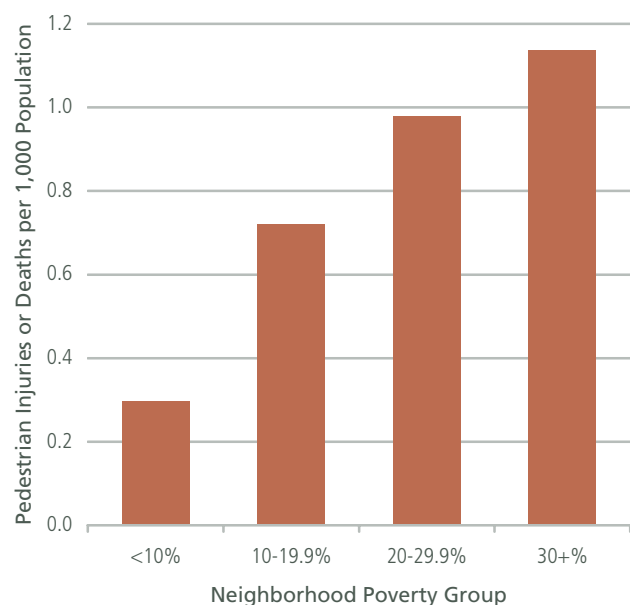
Residents were not given an opportunity to participate in the planning and design process when the freeway was originally constructed. However, when it collapsed

in the Loma Prieta Earthquake, highly organized community members worked with transportation planners and officials in a planning process for rebuilding. Creating opportunities for meaningful community participation led to a more favorable, though not perfect, new location for the freeway. Unfortunately, most communities will never have a similar opportunity to move the freeways that affect their health.

Traffic-Related Injury and Death in Low-Income and Minority Communities

Low-income communities and communities of color bear the burden of higher rates of transportation-related injury. County-level data show that rates of pedestrian injury are higher in neighborhoods with higher poverty. The pedestrian injury and death rate increases 6 times from around 2 cases per 1,000 persons in the lowest poverty group to over 12 cases in the highest poverty group (Figure 41). In Oakland, the majority of cycling/motorized vehicle collision victims are African American,³⁴ and African American and Latino pedestrians are also at the greatest risk of pedestrian injury

Figure 41: Annual Motor Vehicle-Related Pedestrian Injuries or Deaths per Year by Neighborhood Poverty Group, Alameda County



from collision with a vehicle.³⁵ Such unsafe conditions can discourage physical activity, leading to adverse health outcomes (see Physical Activity and Neighborhood Conditions section).

A map of the rate of pedestrian injury and death rates further demonstrates that this negative health outcome is concentrated in communities that are burdened by many of the other inequities examined in this report such as poverty, crime, pollution, illness, and premature mortality (Map 7).

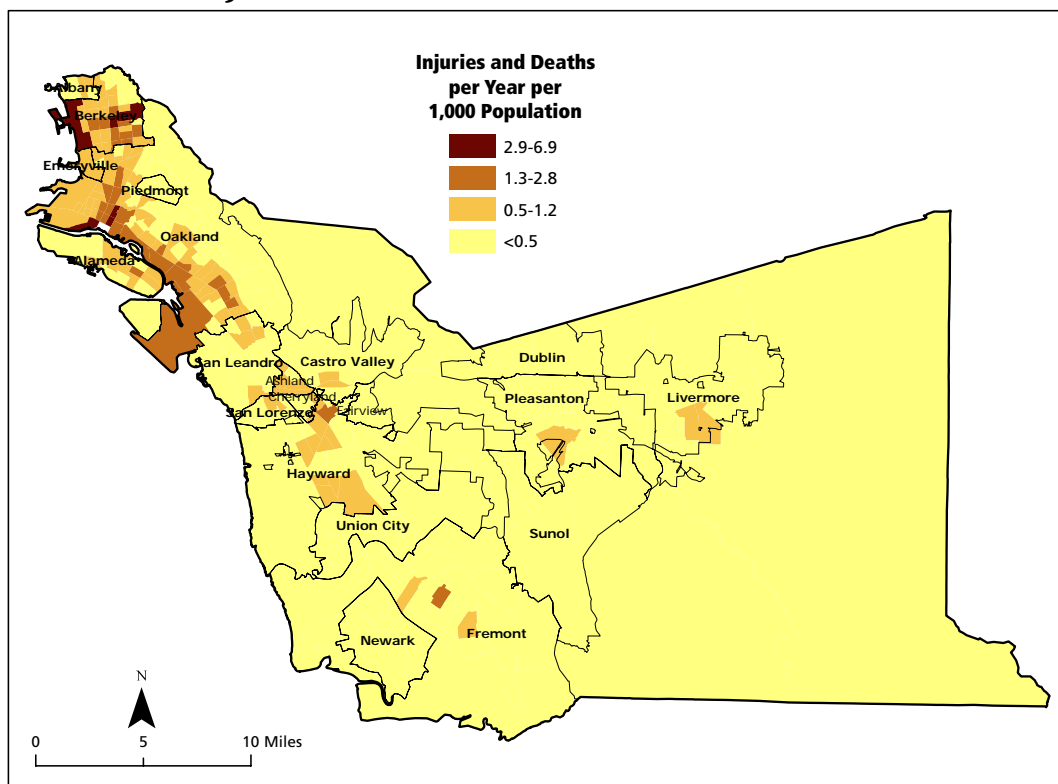
Data to Action: Policy Implications

Alameda County's low-income communities and residents of color are the most likely to rely on public transportation. Those who are dependent on transportation are more likely to depend on AC Transit, the provider with the lowest reliability, lowest levels

of public funding, and decreasing level of service. The communities are also over-burdened by the direct health effects of transportation, namely, transportation-related injury and air pollution. These conditions stem from policy decisions and can be addressed by a commitment to achieving transportation equity. Closing the gap in federal funding for highways vs. public transit, specifically for operating costs, is essential for achieving transportation equity. Local strategies to increase transportation equity include the following.

- Increase affordability:** Decrease transportation costs for low-income families. MTC has identified equity as one of the three goals of its Regional Transportation Plan for 2035. According to the plan, equity will be measured by decreasing housing and transportation costs for low-income households by 10%.³⁶ MTC should consider utilizing policies and programs, such as subsidized transit passes for low-income families. In doing so, MTC would effectively contribute to raising

Map 7: Annual Motor Vehicle-Related Pedestrian Injuries or Deaths, Alameda County



Source: SWITRS, January 1996 to March 2007.

incomes in communities that most need the boost. In addition, local jurisdictions should explore options such as ballot measures to offer free bus passes for all students 17 years of age and under.

- *Improve accessibility and reliability:* Expand bus service in the areas with the most need using strategies such as fully funding the community-based transportation plans, especially the corresponding transit gaps, for the communities of concern identified by MTC.
- *Support public transit subsidy equity:* Support the Alameda County Board of Supervisors' resolution that encourages equitable distribution of public transit funds. One suggestion for equalization is for MTC to study the potential for creatively swapping capital funds for operating funds, thereby increasing the amount of money potentially available to AC Transit's operation-heavy service.
- *Decrease driving:* Implement policies that promote the use of public transportation. Transit oriented development that locates housing, including affordable housing, and essential goods and services in close proximity to each other and to public transit hubs, increases transit options for residents. This type of development is proven to increase use of public transit and decrease vehicle use per capita. Utilize road pricing strategies that reduce driving and increase funds for public transit, such as high-occupancy toll lane systems and congestion pricing in urban areas. Since such policies are potentially regressive in nature, it is imperative to implement them in a way that ensures low-income households are not disproportionately burdened.
- *Increase and improve pedestrian and cycling access:* Increase access to safe walking and biking through the creation of regional, county, and city pedestrian and bicycle strategic plans. Funding for these plans should be prioritized for high-poverty areas experiencing a disproportionate burden of injury.

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