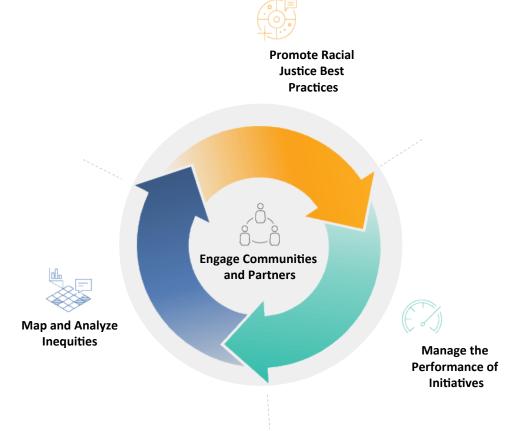


### Addressing Racial Equity with Location Intelligence

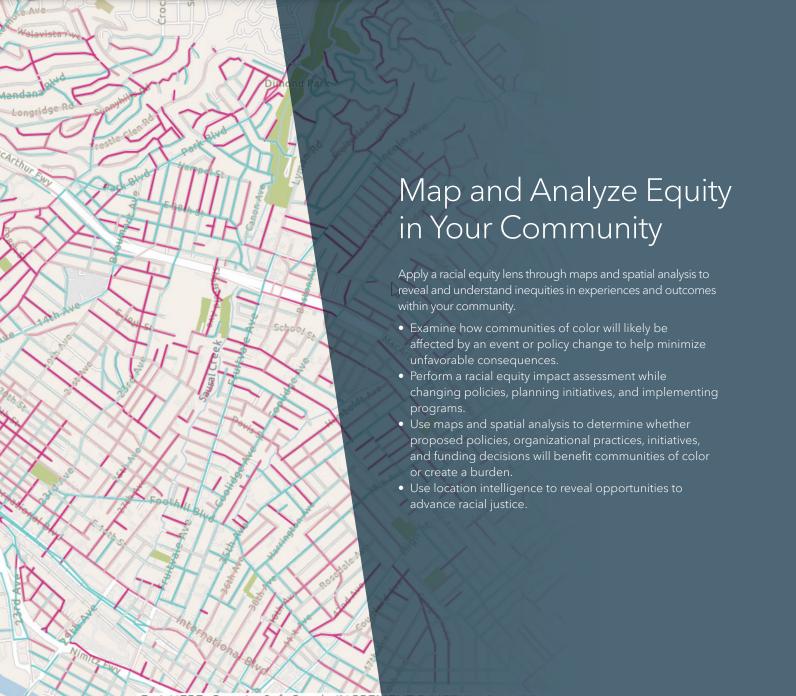
State and local governments are taking a closer look at addressing systemic racism and social injustices in their communities. Mapping and spatial analysis through geographic information system (GIS) technology are exposing patterns of inequalities and are presenting opportunities to intervene.

Governments are applying a geographic lens to disparities in their jurisdictions to topics such as the digital divide, economic opportunity, health equity, environmental justice, and education. Location helps government improve communications, allocate resources, and improve public policy.



GIS enables governments to achieve racial equity through the following

- Mapping and analyzing inequities in experiences and outcomes within your community
- **Promoting racial justice best practices** to ensure equitable allocation of resources
- Managing the performance of initiatives to measure and understand the meaningful impact on your community
- Engaging communities and partners to increase awareness, education, and collaboration



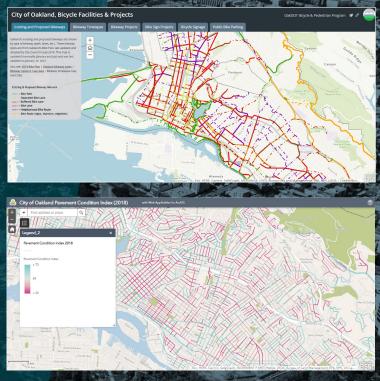
## City of Oakland Uses Location Intelligence to Surface, Share, and Act on Inequities

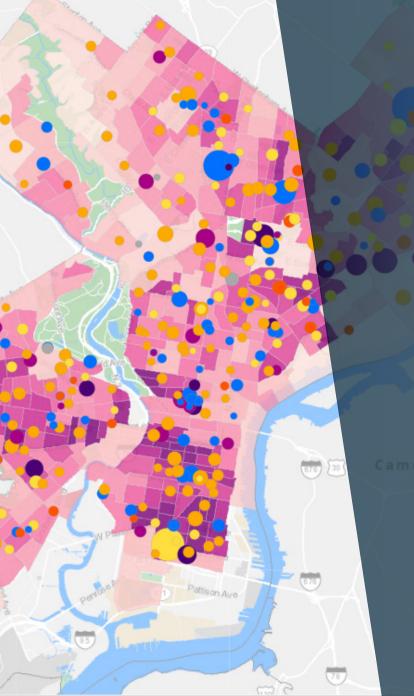
Recently ranked as one of the most racially diverse cities in America, Oakland, California, celebrates and protects its diversity. In 2015, it became the first city in California to start a Department of Race & Equity, focused on creating a community where diversity is not just maintained but celebrated, racial disparities are identified and eliminated, and equity is achieved.

The first thing this department set out to do was understand how racial disparities in Oakland were impacting its residents. Using GIS, staff were able to organize and analyze existing datasets to examine disparities between the most and least impacted groups across geographies. This baseline analysis enabled the department to embark on several ambitious equity-focused projects with city collaborators.

One project looked at the most vulnerable groups in terms of access to protected bike lanes and used GIS to prioritize where and when bike lanes would be added based on need.

Another project was in collaboration with the Oakland Department of Transportation (OakDOT) to develop an equity-focused paving plan using GIS to determine which streets would get paved and when. Smart maps helped gain the support of residents by showing the condition of their roads and the number of residents their roads served versus some of the higher-priority areas with roads in far worse conditions that served 10 to 20 times as many people. Residents throughout the city were able to see the evidence for decision-making in a compelling way.





# Manage the Performance of Your Equity Programs

Manage and analyze the performance of initiatives and services to understand and measure meaningful impact on your community. Leverage decision-making tools to visualize racial inequities at a glance so that you can adapt strategies and operations accordingly.

- Harness smart maps, analytics, and dashboards for a realtime, comprehensive view of operations, people, services, assets, and events.
- Adapt and adjust strategies as you gain more understanding.
- Identify areas of improvement by viewing key performance indicators in the context of location.
- Collaborate and share data effectively and securely via maps, apps, and dashboards.

Bridging the Digital Divide in the City of Brotherly Love

The COVID-19 pandemic made the digital divide starkly apparent in communities across the United States. School closures across the country underscored a crisis within a crisis. School districts, especially those with large populations of students from low-income families, had to devise ways to get students reliable internet access.

According to Pew Research, this digital divide also stems from racial disparities. More than one in five Black teens are forced to search out public Wi-Fi sources for connectivity. Hispanic teens are twice as likely as White teens to report they lack access to a home computer.

With one of the largest school districts in the US, Philadelphia had to devise a plan to address this divide quickly. The city turned to its Office of Innovation and Technology's CityGeo team to prioritize the distribution of wireless routers to create mobile hot spots for students. CityGeo was already using GIS to maintain a city "stress index" that compiles geographic data on crime, homelessness, drug abuse, and other issues that would suggest the existence of students in need. The data helped the city prioritize the distribution of wireless routers to create mobile hot spots for students. By late October, more than 11,000 public school families were receiving free internet access thanks to the collaborative effort of the city government, school district, and business and philanthropic leaders.



The City of Philadelphia used GIS to address the digital divide and prioritize the distribution of wireless routers to students in need



### Promote Best Practices

Design and plan equitable allocations of resources, alleviating burdens on communities of color. Enhance the delivery of services by using maps and spatial analysis and collecting the right location, demographic, and operational data needed to support racial justice.

- Integrate racial justice into policy making, services, programs, and budgeting by adding location intelligence.
- Develop strategies and actions that reduce racial inequities and lift your entire community by using GIS.
- Develop and implement policies and programs with thoughtful consideration to avoid perpetuating racial inequities in operations and decision-making.

## King County Implements Equity and Social Justice Best Practices

Over the past decade, leaders in King County, Washington, have been innovative in the fight for equity and social justice in local government. They have found new ways to use data to shape more equitable policies and track progress over time. And an unassuming county department is leading the charge—the King County GIS Center.

The team was asked to perform a geographic analysis of the project to purchase an abandoned rail line and convert it into a recreational trail for community use. They did the analysis and made a crucial discovery—the area was affluent and already had the highest concentration of trails and parks. With that awareness, the county decided not to spend the money, shifting its focus and budget to other projects where people would benefit more. This led the county to research how the demographics of residents affected their success in life. The disturbing results showed that King County residents experienced a 10-year gap in life expectancy, as well as poorer health and lower income, depending on where they lived. The areas with the lowest life expectancy were also the areas with the most people of color. These experiences and analyses evolved into the practice of applying an equity lens to every potential project and policy in King County with the aid of spatial analysis.

In 2019, the GIS team developed a set of GIS for equity and social justice (ESJ) best practices—not with the goal of setting anything in stone, but with the hope that it would spark conversations, influence critical thinking, and be improved over time. The following are among the guiding principles that are now ingrained in the work of the county:

- Focus efforts upstream, targeting the underlying causes of inequity rather than the symptoms. This means using GIS to examine policies and systems rather than outcomes.
- Establish an ESJ life cycle by identifying problems, exploring solutions and alternatives, and tracking progress year over year.



King County, Washington, developed a set of GIS for equity and social justice best practices that help the county focus efforts upstream and target the underlying causes of inequity, such as mapping and analyzing access to internet by people of color.

## Engage Communities and Partners

Engage communities and partners through storytelling; crowdsourcing; and sharing initiative-focused content that increases awareness, understanding, and collaboration on the topic of racial inequities and efforts toward racial justice. Transform the way governments engage and collaborate with the community using ArcGIS® Hub<sup>sm</sup> and ArcGIS StoryMaps.

- Transform the way governments engage and collaborate with the community using ArcGIS Hub and ArcGIS StoryMaps.
- Create a hub for collaboration and communication about a community's priority initiatives.
- Enable two-way information sharing with constituents using mobile apps.
- Easily illustrate equity programs and achievements with the public using story maps.
- Expose outliers to improve social equity and present opportunities for intervention.



## Los Angeles Hub Fuels Shade Equity Initiative

Like many US cities, Los Angeles is fighting to overcome the damaging legacy left by redlining. The practice, outlining areas with communities of color in red on maps to discourage mortgage lenders and insurance companies, was banned 50 years ago, but the economic and racial segregation created by this practice persists to this day. In LA, historic redlining even affects the number of trees and resultant shade in neighborhoods, which comes with serious consequences.

As the largest city in California and home to nearly four million people, LA has a lot of data. In 2016, Mayor Eric Garcetti launched the Los Angeles GeoHub, built on ArcGIS Hub, to bring all city data together with the goal of making better decisions.

Relying on the data from the GeoHub, the City of LA partnered with California State University, Los Angeles, and local nonprofits to address the urban tree cover problem urgently, as climate change is expected to exacerbate heat islands and health threats. Using GIS, they were able to determine where best to expand tree canopy in low-income, heat-impacted areas, focusing specifically on equity.

This collaboration among government, academia, and nonprofits has led to the development of a web map to view existing and potential tree canopy in Los Angeles as well as the story map "The Journey to the Los Angeles County Tree Canopy Map Viewer." The mayor has now committed the city to plant 90,000 new trees by 2021 and increase tree canopy in some areas by 50 percent by 2028 as part of LA's Green New Deal.



create a web map to share the existing and potential tree canopy coverage across the city.



Explore Esri's Racial Equity Solutions for State and Local Governments
go.esri.com/GovernmentEquity

Copyright © 2022 Esri. All rights reserved. Esri, the Esri globe logo, ArcGIS, StoryMaps, Hub, The Science of Where, and esri.com are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.