Steering the East Bay in the Right Direction: A Policy-Making Process for Waymo LLC

December 17, 2024

Executive Summary

Waymo One is a self-driving car service from Google's company Waymo LLC that plans to expand into the East Bay. This document outlines various methods to ensure that the implementation of this technology upholds values such as safety, commute quality, and economic impact. Several public interest groups will be considered, ranging from Bike East Bay to the Oakland City Council. Experts with knowledge about Waymo's operations and societal implications—such as AI researchers, Uber drivers, and East Bay residents—will also be included. This policy process details the ethical considerations behind implementing a policy that prioritizes safety, commute quality, and economic development.

Technological Context: Waymo LLC

Value Diagnosis: Safety, Commute Quality, Economy

Publics and Stakeholders: East Bay Resident Groups

Experts: Uber Drivers, AI Experts, East Bay Residents

Policy Process

Final Position Statement

Technological Context: Waymo LLC

Waymo One is Waymo's ride-sharing service, where customers can request rides, similar to services in San Francisco. Waymo One differs from Uber or Lyft because it operates solely with self-driving cars. Users request a ride through the Waymo app, and Waymo sends a self-driving minivan or SUV. Their autonomous technology uses a combination of LiDAR, cameras, and radar to visualize the environment. Waymo follows a "sense, solve, and go" model, where it learns from driving experiences to make safe decisions and solve problems on the road.

After dropping off a passenger, a Waymo One vehicle returns to a designated lot to recharge and await the next customer. For maintenance, Waymo partners with companies such as AutoNation, Ryder, and Avis Budget Group. For cleaning, Waymo uses cameras inside and outside the vehicle to detect when cleaning is needed. For immediate onsite repairs, Waymo offers 24/7 support via phone and chat. In more serious cases, such as incidents requiring emergency response, Waymo provides remote assistance to connect with emergency personnel. For example, in December 2024, a Waymo car became stuck in a roundabout loop, prompting a bystander to call for assistance.

Value Diagnosis: Safety, Commute Quality, Economy

Safety, commute quality, and economic impact are key values in reducing accident risk, ensuring smooth traffic flow, and providing local economic benefits. Considering these values in the East Bay implementation of Waymo will positively shape its impact.

Safety is essential because the risk posed to other drivers and pedestrians must not exceed that of traditional vehicles. For Waymo to gain public trust in the East Bay, safety must be ensured. Public trust is essential for making this technology a part of everyday life. Safety requires both technical innovation and political oversight, giving the public a voice and ensuring experts regulate with user safety in mind. A trade-off in prioritizing safety could be higher testing costs, which might increase prices for customers. On the other hand, testing in real-world conditions is necessary to ensure the technology's safety.

Commute quality matters because improved traffic flow and reduced noise pollution are essential for community acceptance. Waymo's software can analyze traffic patterns to improve East Bay traffic overall. This requires political and technical collaboration—Waymo engineers must ethically collect data in partnership with local officials. A trade-off is that data collection could interrupt traffic or raise privacy concerns, which might reduce public trust. Open forums, like city council meetings, where residents can share feedback are essential.

Economy is another vital value. Waymo could reduce commute times, allowing residents to be more productive. For example, parents might rely on Waymo to take children to school, freeing up time for work. However, there are risks: testing this technology in historically underserved areas—especially those with large BIPOC or lower-income populations—could result in negative outcomes if safety isn't prioritized.

Policy options to manage trade-offs include separate lanes for self-driving vehicles to reduce risk, or investing in green infrastructure to reduce noise. Ultimately, successful integration requires balancing safety, commute quality, and economic benefit through informed policymaking.

Publics and Stakeholders: Oakland City Council, East Bay Residents

Bike East Bay is a bicycling advocacy group that promotes community health through biking events. They have criticized self-driving cars, arguing that funds would be better spent on improving public transportation, which serves more residents than self-driving car services. Their values focus on increasing public productivity through healthy and efficient transportation options.

The Oakland City Council allocates city funds, often supporting tech initiatives like improved school internet access or emergency dispatch systems. Their goal is to serve residents, maintain public order, and solve problems through innovative approaches. As someone born and raised in the East Bay, I also asked friends for their opinions. One friend, a recent Cal graduate, noted that she "doesn't really see how self-driving cars are equipped to handle streets that are really ugly," referring to potholes and poorly maintained roads in Oakland. This is a realistic concern—even if the technology is advanced, infrastructure still presents challenges.

A city council meeting would be a good venue for groups like Bike East Bay and local residents to voice opinions. While all groups agree that technology can help solve transportation issues, the City Council may be less inclined to prioritize public transit. Safety is a common value across all stakeholders, but economic and commute quality concerns vary. Historically, the council has not prioritized street maintenance, so those values may be underemphasized compared to public safety.

Experts:

Uber drivers are a key demographic because Waymo directly impacts their livelihoods. As people who have operated in the East Bay for over a decade, their insights are credible and necessary. Their concerns center on safety and commute quality, but they may view economic impacts as negative due to job loss. While tech advancement is important, it should not come at the cost of human livelihoods if the harms outweigh the benefits.

East Bay residents who have lived in the area for more than five years and plan to stay are also vital experts. They are familiar with the roads, traffic patterns, and local reliance on ride-sharing services. Their firsthand experiences provide real-world data for evaluating Waymo's potential impacts. Like Uber drivers, they prioritize safety.

AI experts bring technical expertise, especially regarding how Waymo's technology operates. Their academic backgrounds allow them to evaluate how AI could be integrated safely into East Bay communities. However, their focus may sometimes clash with economic or social experts,

as their emphasis is often on advancing the technology itself, not necessarily its societal implications.

Conflicts can arise when tech advancement takes precedence over public safety or when economic interests do not align with resident well-being. Balancing these expert perspectives is essential to ensuring a thoughtful, community-centered rollout.

Final Position Statement

As the author of this public policy memo, I strongly support prioritizing the values of safety, commute quality, and economic impact. Having lived in the East Bay for over 21 years, I understand the unique dynamics of the community. As a recent graduate from UC Berkeley's College of Computing, Data Science, and Society—with an emphasis in Science, Technology, and Society—I bring both lived experience and academic training to this policy process. My aim has been to center the needs of the East Bay community by highlighting shared values that ensure resident safety, improve traffic flow, and return economic benefits to the community.

Bibliography

https://bikeeastbay.org/