



Bicycle and Pedestrian Advisory Committee

Item # 7D

**Data-Driven Evaluation Framework
for Bicycle & Pedestrian Projects**

August 25, 2025



Background

- July 2024: BPAC Member Jenaro requested exploring forming a data analysis working group.
- Evaluate bike/ped improvements in Santa Clara.
- Look beyond traditional collision reports & adopt a broader, data-driven approach.



Value of Data

- Improve safety and transparency
- Guide investment priorities
- Strengthen grant applications
- Support outcome-based planning



Key Data Collection Methods

- Collision Data Integration
- Bike/Ped Counts
- Multi-Modal Data
- Mobile/GPS Data
- Crowdsourcing & Surveys
- Automated Conflict Detection
- Close Call Reporting & Sensors



Evaluation Framework

- Baseline Data – counts, 5-year history, surveys.
- During Implementation – counters, cameras, GPS monitoring.
- Post-Implementation – 3, 6, & 12-month comparisons.
- All-Mode Assessment – impacts on vehicles, transit, micromobility.
- Community Feedback – audits, surveys, workshops.



Case Studies & Best Practices

- San Francisco – bikeways linked to 14% cycling increase.
- Santa Barbara/Santa Cruz – before/after counts strengthened state tools.
- Los Angeles – e-scooter trip data for equity & planning.
- Vision Zero Cities – combine collisions + near-miss + feedback.
- NACTO – recommends dashboards for transparency.



Institutionalizing Framework

- Standardize protocols for data collection.
- Invest in counting infrastructure.
- Build partnerships with universities/vendors.
- Publish clear reports & dashboards.
- Use results to guide future investments.



Challenges & Considerations

- Additional staffing & funding needed.
- StreetLight subscription (1 year) is initial step.
- Phased approach: low-cost surveys and higher-cost sensors.
- Need for centralized data platform for consistency & transparency.



Recommendations

- BPAC to consider creating a Data Analysis Subcommittee.
- Advisory role with City staff.
- Identify scalable & cost-effective strategies.
- Develop Key Performance Indicator (KPI) framework aligned with city policies & goals.
- Additional staffing/funding would need **City Council approval.**



Questions