

Developing an Active Transportation Database for Southern California

AMPO Conference

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Rye Baerg - SCAG

Senior Regional Planner

David Von Stroh – Cambridge Systematics

Associate Transportation Planner



About SCAG



- Nation's largest Metropolitan Planning Organization (MPO)
- Governed by a Regional Council of 84 local elected officials
- Nation's Global Gateway for Trade

SCAG FACTS ▶

191

Cities

6

Counties

18.5

Million People

16th

Largest Economy
in the World

SCAG's Active Transportation Program



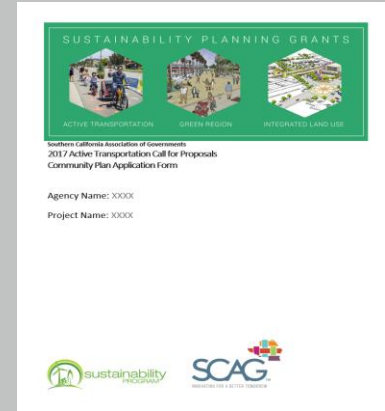
Advertising
Campaign



Toolkits/
Toolbox



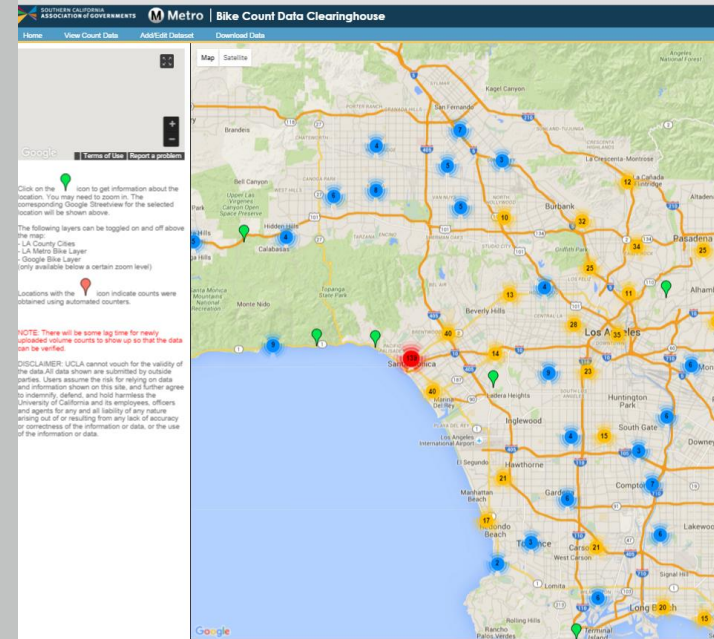
Open Streets &
Temporary
Events



Sustainability
Planning
Grants

Background

- SCAG is Los Angeles area MPO
- Bicycle Data Clearinghouse Released in 2012 w/ UCLA
- Allows storage of manual counts
- Primarily focused on bicyclists



Metro®

Original Deliverables

- Conducting Bicycle and Pedestrian Count Manual
- Count Forms
- Literature Review
- Modeling Integration White Paper
- Union Station Bike Count Report

Bicycle/Pedestrian Data Collection - Screenline Count Form

Date: ____/____/____ 20____
DAY MONTH YEAR

Location: _____
BETWEEN _____ AND _____

This Page: ____ FROM ____ TO ____
Count Period: START ____ END ____

Pages: ____ OF ____
PAGE TOTAL

Rain: ☐ YES ☐ NO

Bicyclists

Count bicyclists when they cross this imaginary line

Bikes - Right to Left: TOTAL

Bikes - Left to Right: TOTAL

Make additional marks to count other characteristics

Female: TOTAL

Sidewalk Riding: TOTAL

Wrong Way Riding: TOTAL

Other: TOTAL

Other: TOTAL

Pedestrians

Count pedestrians when they cross this imaginary line

Pedestrians - Right to Left: TOTAL

Pedestrians - Left to Right: TOTAL

Make additional marks to count other characteristics

Wheelchair/Special Needs: TOTAL

Skateboard/Scooter/Skates: TOTAL

Child: TOTAL

Other: TOTAL

Other: TOTAL

Goals of the Update

- Integrate Pedestrian Data
- Improve User Interface
- Improve Data Retrieval and Reporting (incl. TMG)
- Support Mobile App Integration
- Provide a Planning Tool for ATP, TIGER grants, other
- Integrate Automated Counters
- Support Regional Modeling Efforts
- Counter siting plan, incl. stratification factors

Stakeholder Outreach

- Online survey to 100+ jurisdictions
- Interviews with county and transit agency modeling and bike/ped staff
- Needs:
 - Grant application support, integration of related data (census, safety, vehicle traffic)
 - Standardized procedures for counting
 - Easy upload/download of data

State of Practice Outreach

- Interviews with peer agencies and national thought leaders
- Recommendations/ideas:
 - Leverage one week counts with permanent counters
 - develop annualization factors
 - Conform to TMG October 2016 Update
 - API to feed data to public and third party developers
 - Data visualization and user interface options

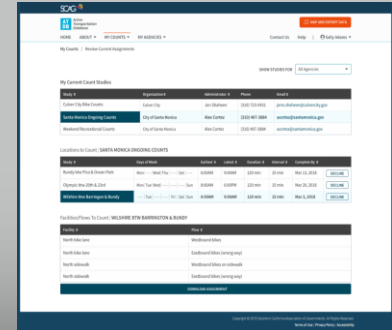
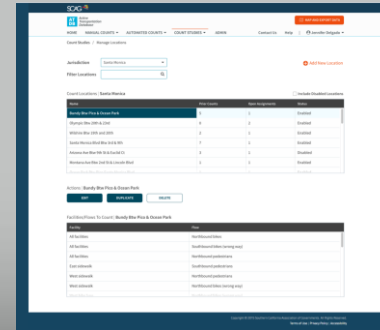
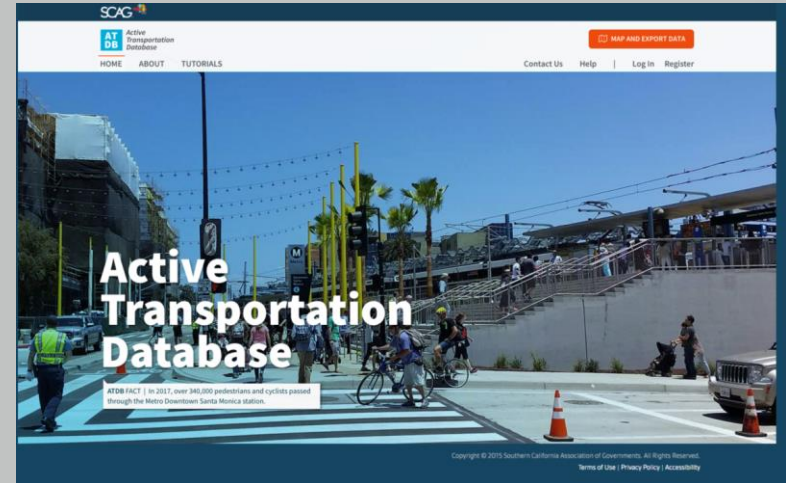
New Database Schema

- Conforms to 2016 TMG
- Bike and ped data
- Automated & manual counts
- Interval volumes or individual timestamped observations
- Screenlines or turning movements
- User characteristics (helmet, gender, age, WC)
- Environmental characteristics



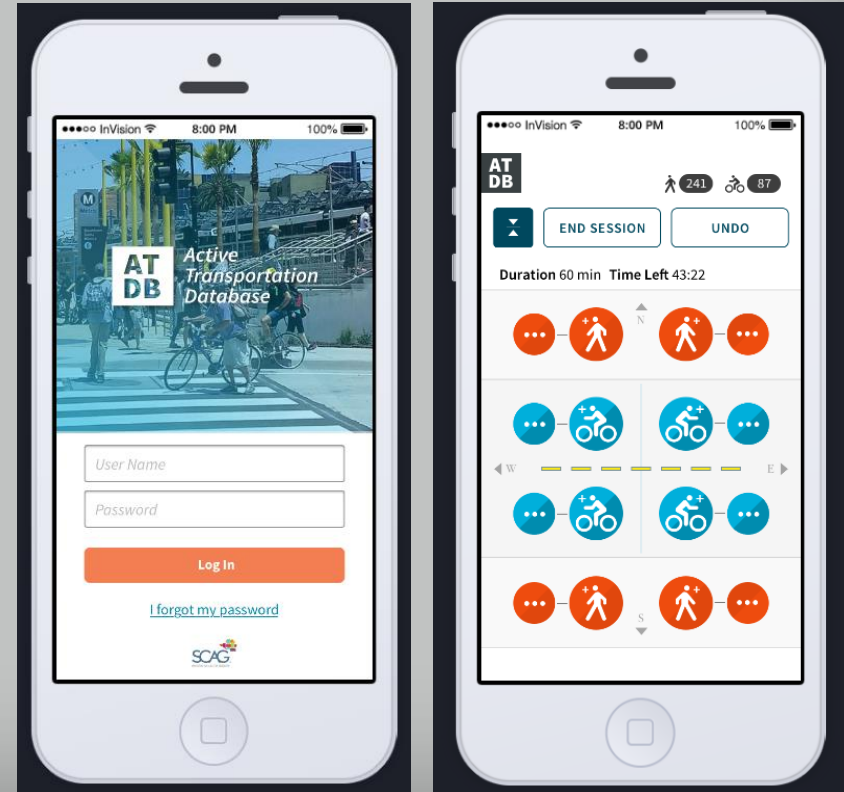
New Website User Interface

- Count management/assignment
- Location management
- Data upload



Mobile Counter App

- Collect real time observational data
- Optional traveler characteristics (helmet, gender, age, WC)
- Integrated with count assignments from website



Additional Components

- ESRI data viewing and download portal
- Automated counter interface (API)
- Flexibility to receive and standardize counts from any source, many formats

Future Considerations

- New technologies:
 - Video recognition,
 - Bluetooth MAC tracking,
 - Phone GPS traces
- Potential to integrate with social tracking app data
 - Many screenlines can weight penetration of apps
- Environmental characteristics (facility width, pavement condition, etc.) correlation with count volumes