Creating Walkable, Bikeable Communities
Developing Effective Active Transportation Projects and Programs

Module 2: Leveraging Data to Understand
Active Transportation Needs

ATP Needs & Challenges Survey

- Mix of public, private and NGO respondents
- 96% from organizations/agencies serving disadvantaged communities
- Nearly two-thirds of respondents spent more than 50 hours preparing their ATP Cycle 1 application(s)

ATP Needs & Challenges Survey

- Top 3 Challenges:
  - Lack of knowledge/tools for estimating increases in walking/biking
  - Insufficient staffing to prepare application
  - Lack of knowledge/tools for demonstrating benefits to disadvantaged communities

- Top 3 Requested Topics for Technical Assistance
  - Estimating Increases in Walking and Biking,
  - How to Use Safety Data To Estimate Decreases in Injuries/Fatalities
  - Effective Project Evaluation

Overview

- Understanding Walking & Biking Trips
- Informing Project Development through:
  - Examining Community Characteristics
  - Evaluating Safety Conditions
  - Overlaying Data
- Cultivating Community & Stakeholder Support
How Far Do People Walk/Bike?

Source: Los Angeles County Metropolitan Transportation Authority (Metro), First Last Mile Strategic Plan & Planning Guidelines, 2014.

The Tremendous Potential
1 Mile Equals...

...a 20 minute walk
...a 6 minute bike ride

Source Credit: San Francisco Bicycle Coalition
Source Credit: Lynne Sladky, Associated Press

The Tremendous Potential

Nearly $\frac{1}{3}$ of trips are under 1 mile...

Source: 2009 National Household Travel Survey, California Add-On

The Tremendous Potential

Nearly $\frac{1}{3}$ of trips are under 1 mile...

...yet $\frac{2}{3}$ of these trips are made by car.

Source: 2009 National Household Travel Survey, California Add-On
Exploring Community Characteristics

- Demographics
- Current Travel Behavior
- Key Community Destinations

Demographics

“Rates of nonmotorized travel generally declined as household income increased”

“Younger workers, those aged 16 to 24, had the highest rate of walking to work at 6.8 percent.”

Demographics

- Household Income Levels
- Vehicle Ownership Rates
- Age
- Languages Spoken

Sources of Data
- U.S. Census
- American Community Survey
- CalEnviroScreen
- Public Health Departments

City of Arcata (Funded Cycle 1 Disadvantaged Community Applicant)

“...more than 11% of residents in Arcata do not have access to a vehicle...

Because of the project’s location, relative to Arcata’s most disadvantaged households, the City anticipates that 75% of ATP funding will provide direct benefits to the disadvantaged community.”

CalEnviroScreen, 3.0

Pollution Burden × Population Characteristics = CalEnviroScreen Score

- Exposures
- Sensitive Populations
- Environmental Effects
- Socioeconomic Factors
Rexland Acres (Funded Cycle 3 Disadvantaged Community Applicant)

- “…through the classroom surveys we discovered that approx. 57% of students do not walk to school…”
- “…when asked if sidewalks were constructed, 62 students (12%) and 105 parents (67%) said they would allow them to walk, demonstrating a significant need for this project…”
- “For those that do not currently walk or bike 67% and 86% said they would, if the project was built.”

Current Travel Behavior

- Commute to Work—American Community Survey
- Ongoing Bicycle/Pedestrian Counting Program

Key Community Destinations

- Major Employment Centers
- Schools
- Health Care Facilities
- Senior and/or Community Centers
- Shopping Centers
- Public Buildings
- Transit Centers/Hubs
- Parks & Open Space
- Others?
Assessing Network Connectivity

- “BikeAble” model to assess “low stress” bike network connectivity
- Measures access to key destinations via existing and planned facilities
- Helps identify high value priority projects

Evaluating Safety Conditions

- Quantitative Data
- Qualitative Concerns
- Conduct a Site Visit

Quantitative Safety Data

- Collision Data
  - Statewide Integrated Traffic Records System (SWITRS)
  - Transportation Injury Mapping System (TIMS)
    - SRTS Map Viewer
  - Office of Traffic Safety (OTS) Collision Rankings
  - Local Collision Data
- Analyzing Collision Data & Selecting Countermeasures
- Infrastructure Inventory

Transportation Injury Mapping System (TIMS)

www.tims.berkeley.edu
Office of Traffic Safety Collision Rankings

City of Berkeley, 2012

Analyzing Collision Data & Selecting Countermeasures

  [http://www.dot.ca.gov/hq/LocalPrograms/HSIP/2016/CA-LRSM.pdf](http://www.dot.ca.gov/hq/LocalPrograms/HSIP/2016/CA-LRSM.pdf)
- PedSafe & BikeSafe Guides, pedbikesafe.org
- Crash Modification Factors (CMF) Clearinghouse
cmfclearinghouse.org

Qualitative Safety Concerns

- Walk/Bike Audits
- Community Surveys
- Community Workshops
- PhotoVoice & VideoVoice

PhotoVoice Example

Shootings, Graffiti, Dealers & No Lights

“At the end of this alley you’ll find The Accelerated School. Although this is a direct route to school, students often go around because they are afraid.

This alley is known for gang shootings, graffiti wars, and drug dealers. It has no lighting either. How can I feel safe going to school, knowing this is happening right next to me?”
VideoVoice Example  Greenfield Middle School (Kern Co.)

Conduct a Site Visit or Assessment

Limited number of FREE assessments available each year

E-mail safety@techtransfer.berkeley.edu

http://www.techtransfer.berkeley.edu/services/pedestrian-safety-assessments

Overlaying Data

Overlaying Data
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Mapping Resources
- Work with your local academic institutions and/or health department
- Healthy City
  www.healthycity.org/
- Community Commons
  www.communitycommons.org
- Google Maps/Earth

Cultivating Community & Stakeholder Support
- Coordinate with Other Agencies Early & Often!
- Communicate with & Involve Affected Residents
- Be Open to Input/Feedback
- More on this subject in Module 8!

Questions/Comments?