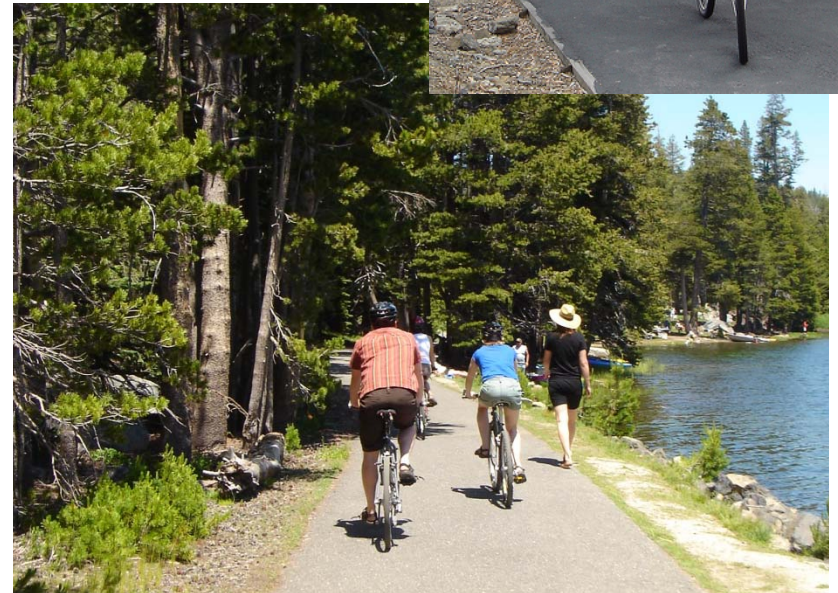
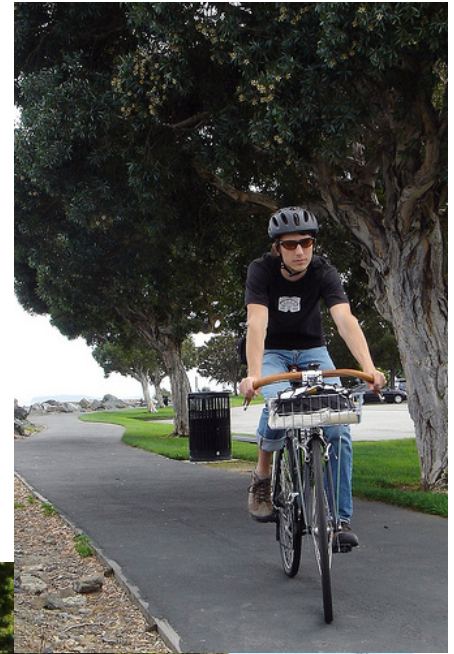


The National Bicycle and Pedestrian Documentation Project

Responding to the Need for
Improved Data on Bicycling and
Walking

Presented by:

Jennifer Donlon, Alta Planning + Design



Presentation Overview

- What is NBPD?
- NBPD Accomplishments
- How NBPD Can Help
- Automatic Counters
- Lessons from Seamless Travel



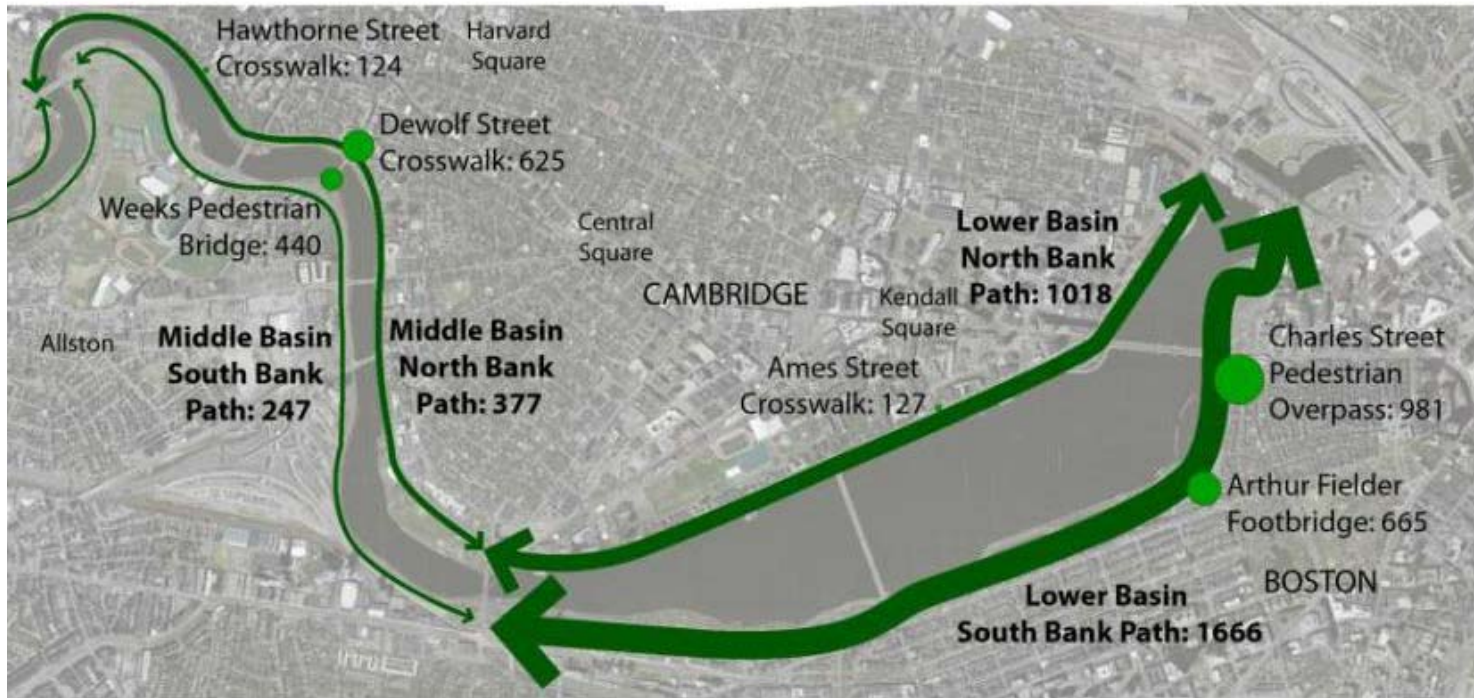
What is NBPD?

- A pro bono effort by Alta Planning + Design with support from ITE and the Rails to Trails Conservancy
- Annual national bicycle and pedestrian count and survey effort
- Fulfills need for in-depth analysis of why people bike and walk
- Objectives
 - Consistent data collection
 - Open access data
 - Shared research



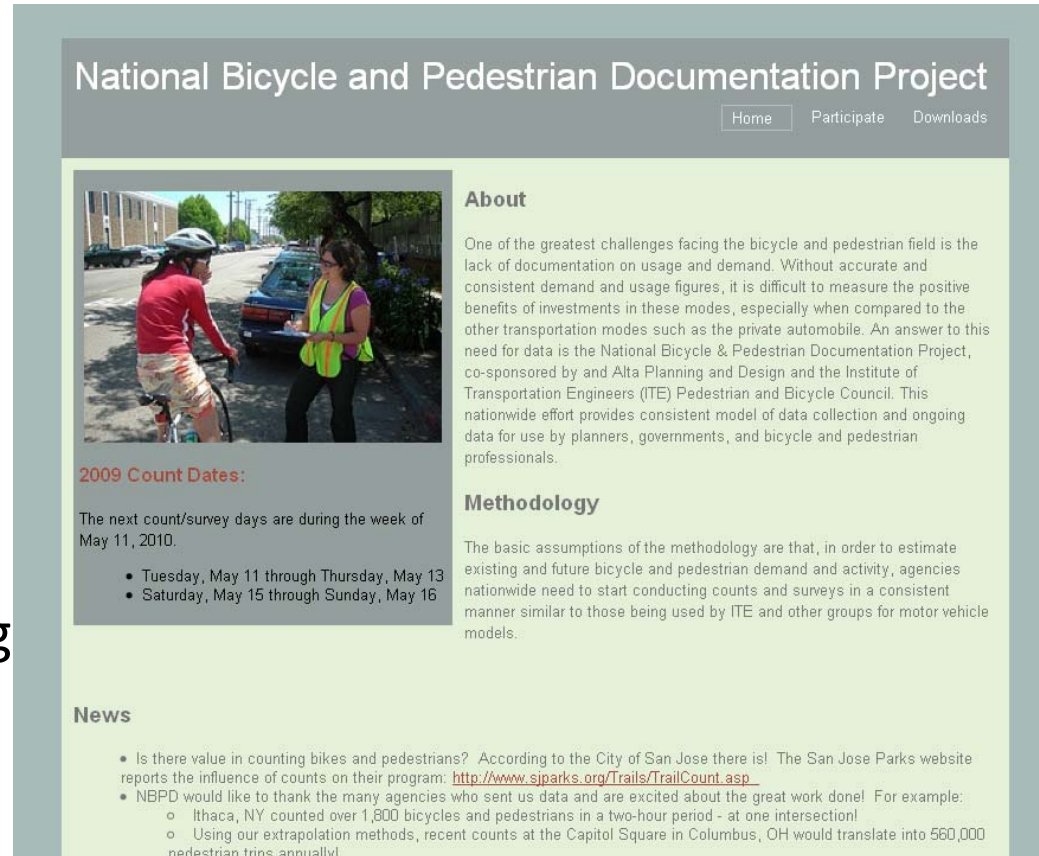
The Need for NBPD

- Lack of consistent data
- Lack of support for non-motorized funding
- Forecasting and modeling bicycle and pedestrian travel



NBPD Accomplishments


- Over 100 organizations and agencies have sent data
- Over 600 count locations
- Extrapolation figures
- Related projects: Caltrans Seamless Travel
- Publicly available support documents including training presentations and count/survey forms



The screenshot shows the website for the National Bicycle and Pedestrian Documentation Project. The header includes the title and navigation links for Home, Participate, and Downloads. A photograph shows a cyclist in a red shirt and helmet talking to a woman in a yellow safety vest. Below the photo is the '2009 Count Dates' section, which states that the next count/survey days are during the week of May 11, 2010, specifically from Tuesday, May 11 through Thursday, May 13, and Saturday, May 15 through Sunday, May 16. The 'About' section explains the project's goal to address the lack of documentation on usage and demand for bicycles and pedestrians. The 'Methodology' section describes the basic assumptions for estimating demand and activity. The 'News' section contains two bullet points: one about the City of San Jose's program and another thanking agencies for their data, with sub-points mentioning Ithaca, NY and Columbus, OH.

National Bicycle and Pedestrian Documentation Project

Home Participate Downloads



About

One of the greatest challenges facing the bicycle and pedestrian field is the lack of documentation on usage and demand. Without accurate and consistent demand and usage figures, it is difficult to measure the positive benefits of investments in these modes, especially when compared to the other transportation modes such as the private automobile. An answer to this need for data is the National Bicycle & Pedestrian Documentation Project, co-sponsored by and Alta Planning and Design and the Institute of Transportation Engineers (ITE) Pedestrian and Bicycle Council. This nationwide effort provides consistent model of data collection and ongoing data for use by planners, governments, and bicycle and pedestrian professionals.

Methodology

The basic assumptions of the methodology are that, in order to estimate existing and future bicycle and pedestrian demand and activity, agencies nationwide need to start conducting counts and surveys in a consistent manner similar to those being used by ITE and other groups for motor vehicle models.

2009 Count Dates:

The next count/survey days are during the week of May 11, 2010.

- Tuesday, May 11 through Thursday, May 13
- Saturday, May 15 through Sunday, May 16

News

- Is there value in counting bikes and pedestrians? According to the City of San Jose there is! The San Jose Parks website reports the influence of counts on their program: <http://www.sjpark.org/Trails/TrailCount.asp>.
- NBPD would like to thank the many agencies who sent us data and are excited about the great work done! For example:
 - Ithaca, NY counted over 1,800 bicycles and pedestrians in a two-hour period - at one intersection!
 - Using our extrapolation methods, recent counts at the Capitol Square in Columbus, OH would translate into 560,000 pedestrian trips annually!

How NBPD Can Help

- Count/survey instructions
- Example count/survey forms
- Example training presentation
- Overview of automatic count technologies

Data Input: Tally the data

STANDARD BICYCLE INTERSECTION COUNT TALLY SHEET

Enter after field work

Time Period	Bicycle Counts											
	Leaving Leg A			Leaving Leg B			Leaving Leg C		Leaving Leg D			
	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3
00-15	24	17	21									
15-30												
30-45												
45-1:00												
1:00-1:15												
1:15-1:30												
1:30-1:45												
1:45-2:00												
Total												
Leg:												
Street Name A to C:							Location 1 (Total Leg A + Total Leg C) =					
Street Name B to D:							Location 2 (Total Leg B + Total Leg D) =					

How do you count this?



Overview of Automatic Counters

Passive Infrared	Detects change in thermal contrast
Active Infrared	Detects obstruction in beam
Ultrasonic	Emits ultrasonic wave and listens for echo
Doppler Radar	Emits radio wave and listens for change in frequency
Video Imaging	Analyzes pixel changes or Data is played by and analyzed by a person
Piezometric	Senses pressure on tube or underground sensor
In-Pavement Magnetic Loop	Sense change in magnetic field as metal passes over

Automatic Counter Examples



ZELT
Loops

Pyro



- Infrared

- Infrared and Loop Detection

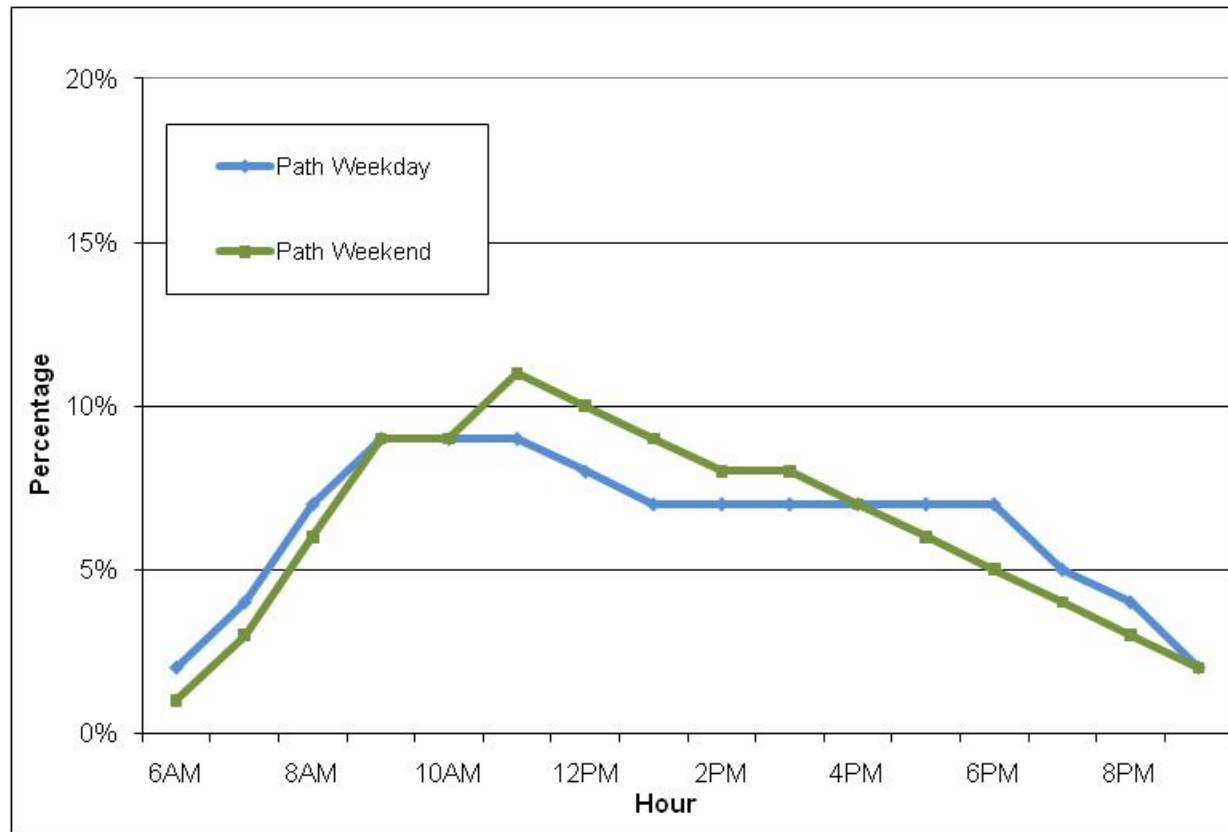
Lessons from Seamless Travel

- Grouping poses automatic count problems
- However, year-long count data provides a wealth of information



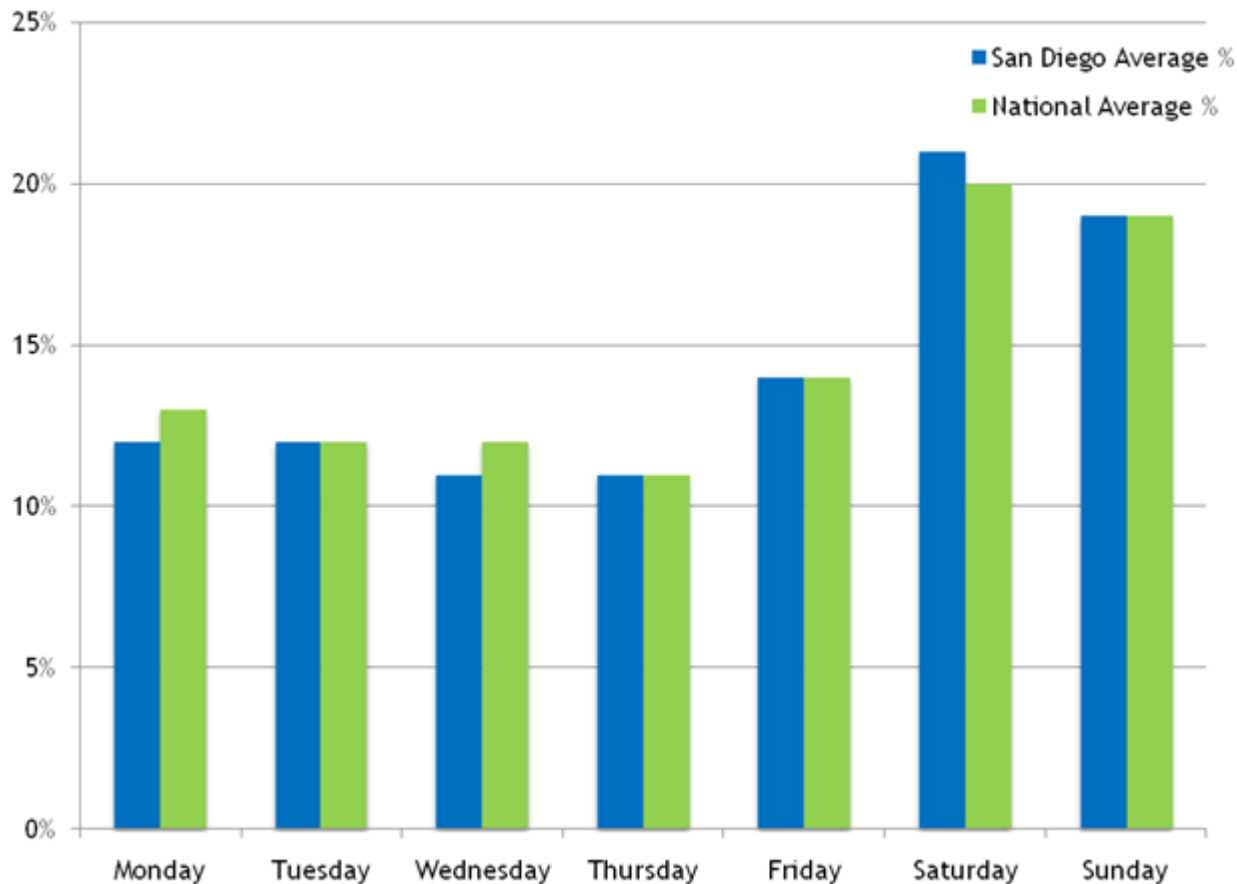
Key Findings: Peaking Periods

- Peaking periods for bicyclists and pedestrians on paths are much different than for vehicles



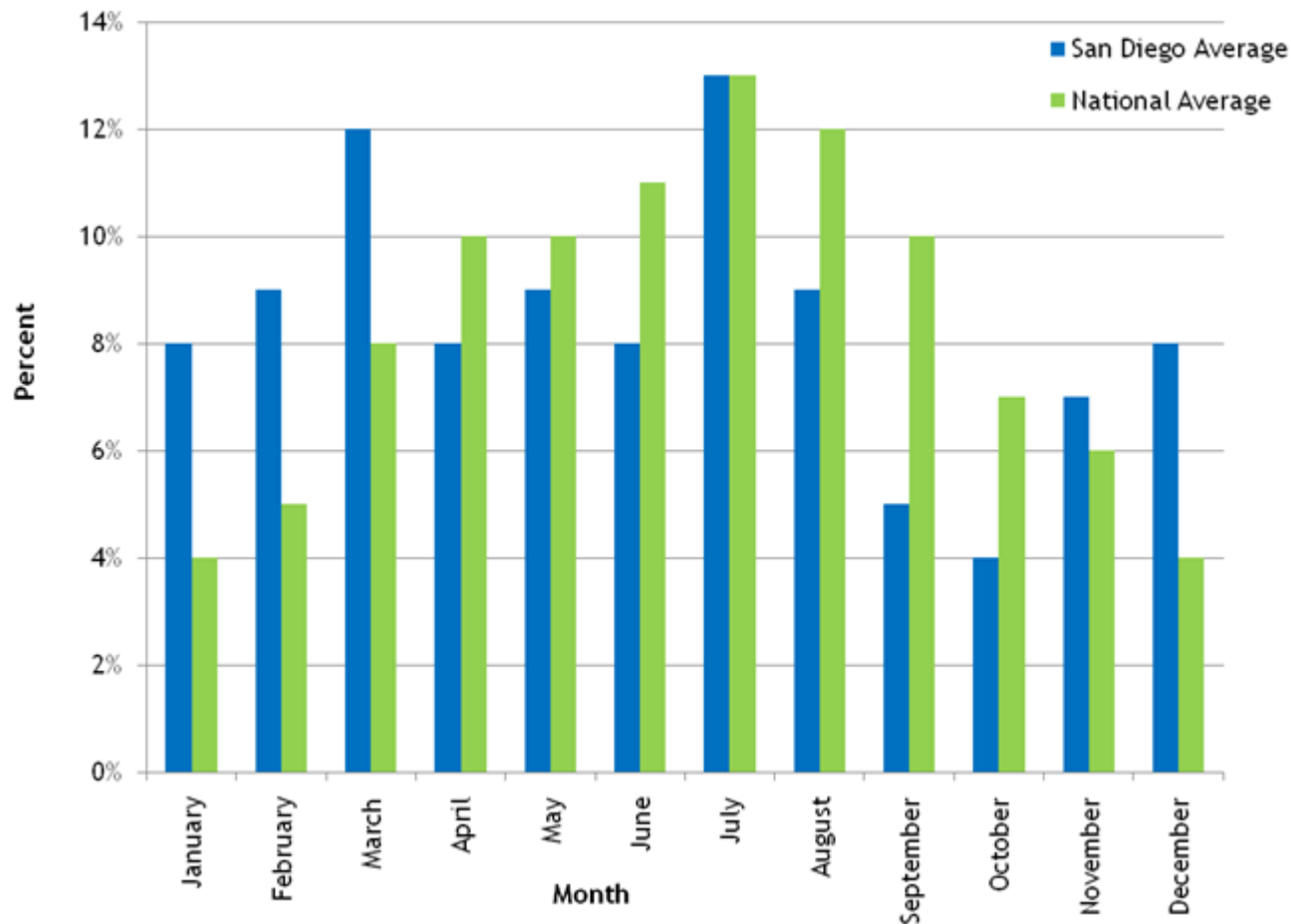
Key Findings: Day of Week Volumes

- Day of week volumes are relatively consistent nationwide



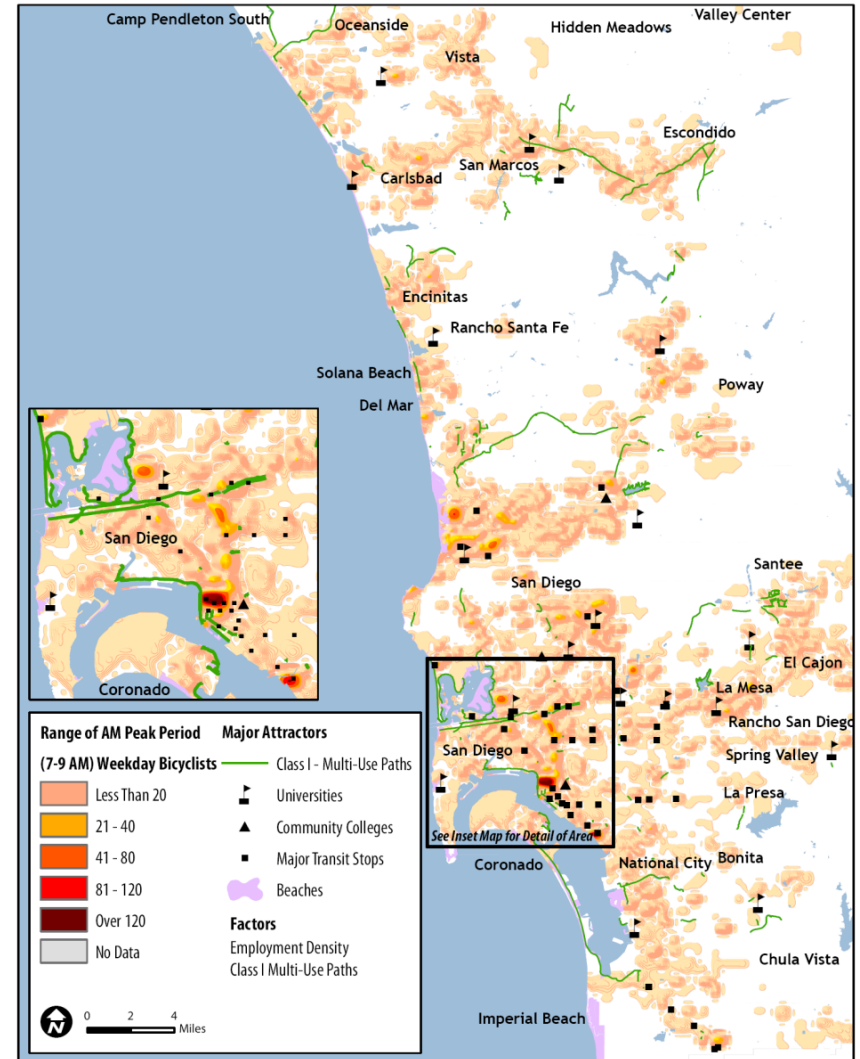
Key Findings: Month of Year Volumes

- Monthly volumes appear to be highly related to localized conditions



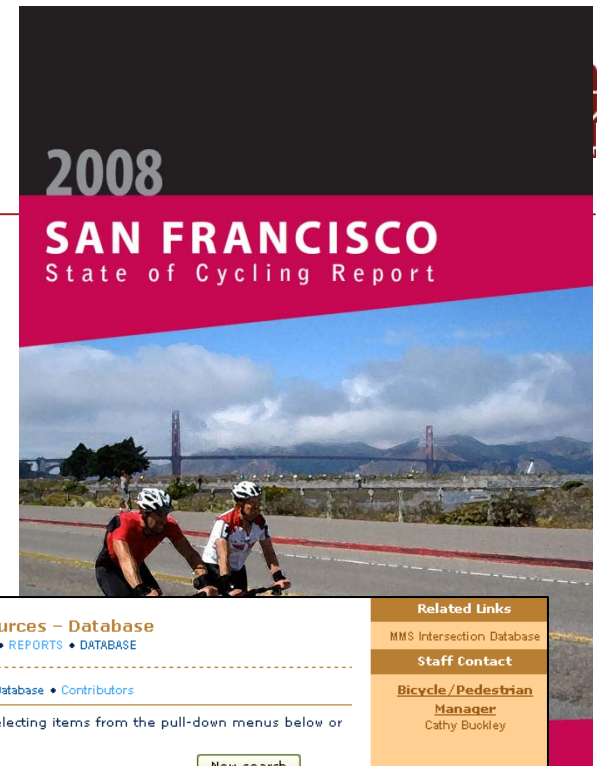
How the Seamless Model Can Help

- Forecast Demand
 - Existing facilities
 - Proposed facilities
- Justify Funding



Who Is Counting?

- Cities
 - Arlington, VA
 - Lincoln, NE
 - Portland, OR
 - San Francisco, CA
- Regional
 - Boston MPO
 - San Francisco MPO
 - Mid-Ohio Regional Planning Commission
- State
 - Washington



Bicycle / Pedestrian Resources – Database
[OVERVIEW](#) • [WALKABLE COMMUNITIES](#) • [REPORTS](#) • [DATABASE](#)

[Overview](#) • [About the Data](#) • [Access the Database](#) • [Contributors](#)

Search for a set of locations by selecting items from the pull-down menus below or by zooming in on the map.

Search by:

Municipality:

Facility:

Date:

Related Links

- MMS Intersection Database
- Staff Contact**
- Bicycle/Pedestrian Manager**
Cathy Buckley

Count locations matching search criteria
Other count locations

Summary Report to the Washington State Department of Transportation

Washington State Bicycle and Pedestrian Documentation Project

Prepared by the Cascade Bicycle Club
2008

Thank you!

Jennifer Donlon

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www.bikepeddocumentation.org
