Measuring What Matters
(We’ll Get There)

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What I find the most difficult is separating what I know right away from what I may not be seeing because I know too much.

—Designer Paula Scher
What We Know, What We Want to Know

• Usage
• Mobility—Network Analysis
• Safety
• Equity
• Asset management
• Performance measures
• Life, the Universe and Everything!
WSDOT’s Bicyclist and Pedestrian Count Program

- Permanent Continuous Counts (40 counters in, +40 coming)
- Short Duration Recurring/Manual Counts
- Short Duration Special Purpose
  - Before/After Project Evaluations
  - Safety Studies

Resource: *Collecting Network-wide Bicycle and Pedestrian Data: A Guidebook for When and Where to Count*
Bicyclist and Pedestrian Count

Data Uses

Estimate Volumes on the Network

- Facility Level
- Can be Aggregated to City, Region, and State Levels
- FHWA: AADBT/AADPT/AADNT
- BMT/PMT

Other Uses

- Safety Analysis/ Exposure Rates
- Network Planning
- Project Scoping and Evaluation
- Performance Management
- More…
WSDOT Count Data Portal
Usage Data Challenges: Agency Work

• Making bike/ped data collection as routine as car data collection
• Getting data from local partners into our portal
• In the short term, making policy-based investment decisions, not volume-based decisions (sorry, traffic modelers)
Usage Data Challenges: What It Doesn’t Tell Us

- Lack of usage does not mean lack of need for infrastructure—it may mean the exact opposite
- Equity issues in crowdsourced data
- ACS commute-only misses 80% of trips, transit-access mode use
Mobility—Network Analysis

- Agency is developing multimodal performance measures
- Active Transportation State Plan Update will provide network analysis methodology: mobility, safety, multimodal connectivity, equity, economic opportunity, other measures
Some of the Mobility Data Challenges

- The network has many owners
- How to track/report network quality, completeness, stress level
- Person throughput, signal wait time, more that we don’t currently count
Currently Approved and Proposed

U.S. Bicycle Routes

State of Washington
Safety Data

- Systematic safety analysis for communities
- Pre/post data on grant-funded projects
- Data gaps identified as priority by Pedestrian Safety Advisory Council and Cooper Jones Bicyclist Safety Advisory Council
Pedestrian/Bicyclist Program

Percentage of Projects Targeting Locations with Crash History 2006-2013

- No Crash History: 69%
- Crash History: 31%

Crash History at Project Location – 3 Years Post Project

- No Crash: 72%
- Crash: 28%
Safety Data Challenges

- Exposure rates unknown
- No near-miss data
- No data collected if no motor vehicle involved
- Focus on numbers misses benefits to all users of starting with safety for vulnerable users
- Crowdsourced data: Quality and risk management questions
Equity Data

- Using demographic data to prioritize technical assistance outreach
- Points awarded to grant applications to address equity
- Factor into future network analysis and performance measures
Asset Management Data

- State Highway Road Log/TRIPS
- ADA Transition Plan
- Bridge Management System
- Local and Regional Agencies
  - Facility data
  - Bicycle and Pedestrian Network Classification Data
- Shared Use Paths within WSDOT ROW—*major gap*
- CPDM Asset Management System

Image by Don Willott
The Question We’ll Start to Address via the Active Transportation Plan

How well do Bicycle and Pedestrian Assets Serve a Safe, Accessible and Connected Network?

- Gaps and Barriers Analysis
- Minimum Standards
  - ADA
  - Geometric Standards
- Contextual Needs
  - Levels of Service
  - Levels of Traffic Stress
- All Ages and Abilities
How Would We Define and Measure Asset Condition?

Network Based Condition Ratings

Physical Conditions: Structural Integrity of the Asset
• City of Dupont
• Montana DOT

Functional Conditions:
• FHWA
• PSRC
• Colorado DOT
Green pieces
How WSDOT protects Washington's wetlands

Information superhighway
WSDOT helps keep travelers updated on conditions

Keeping it quiet
Inside WSDOT's efforts to reduce roadway noise

PEOPLE POWER
WSDOT ON THE MOVE TO IMPROVE ACTIVE TRANSPORTATION
Performance Measures

Pedestrian and bicyclist fatalities increase to 122 in 2017, comprising 22% of all traffic fatalities in Washington
2013 through 2017; number of fatalities and percentage of total traffic fatalities

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017¹</th>
<th>Five-year trend</th>
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<td>Pedestrian fatalities</td>
<td>50</td>
<td>77</td>
<td>86</td>
<td>89</td>
<td>109</td>
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<tr>
<td>Bicyclist fatalities</td>
<td>10</td>
<td>7</td>
<td>14</td>
<td>17</td>
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<tr>
<td>Total non-motorist traffic fatalities</td>
<td>60</td>
<td>84</td>
<td>100</td>
<td>105</td>
<td>122</td>
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<tr>
<td>Percent non-motorist traffic fatalities</td>
<td>14%</td>
<td>18%</td>
<td>18%</td>
<td>20%</td>
<td>22%</td>
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<tr>
<td>Total statewide traffic fatalities² = 100%</td>
<td>436</td>
<td>462</td>
<td>551</td>
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