8-27-2015

Webinar: Pedestrians Count! – How to Measure Foot Traffic

Krista Nordback
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Texas Transportation Institute

Scott Brady
Delaware Valley Regional Planning Commission

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Sprinkle Consulting

David Jones
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Pedestrians Count! How to Measure Foot Traffic

Aug 27, 2015
Webinar Overview and Context

• Project: Pedestrian Monitoring Techniques and Procedures

• Purpose: Inform the Traffic Monitoring Guide

• Project Team
  • Hannah Twaddell, ICF
  • Lindsay Martin, ICF
  • Eliot Rose, ICF
  • Krista Nordback, PSU
  • Sirisha Kothuri, PSU
  • Theo Petritsch, Sprinkle Consulting
  • Peyton McLeod, Sprinkle Consulting
Presentation Overview

1. Project Overview and Context – David Jones, FHWA
2. Pedestrian Monitoring, Count Locations and Technologies – Shawn Turner, TTI
3. Count Duration and Factoring – Theo Petritsch, Sprinkle Consulting
4. Data Management – Krista Nordback, PSU
5. Setting up a Count Program - Scott Brady, DVRPC
6. Q&A
Share your experience!


Access the different questions by clicking on the tabs at the bottom of the spreadsheet.

Share your response by typing in an unclaimed row. See what others have to say in real time.

<table>
<thead>
<tr>
<th>Name and/or organization</th>
<th>What problems have you encountered in trying to count pedestrians?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sirisha Kothuri, PSU</td>
<td>Pedestrians don’t cross at fixed locations, lack of technologies for counting pedestrians.</td>
</tr>
<tr>
<td>Kristin Bennett, City of Milwaukee</td>
<td>Funds for technology to count pedestrians more efficiently; management interest in understanding value of counting pedestrians (not just for traffic or safety purposes but also for real estate, development needs as well)</td>
</tr>
<tr>
<td>Christian Abildso, Morgantown WV</td>
<td>Have to identify a corridor to count; some cost issues; some issues on my side with user error when technology changes</td>
</tr>
</tbody>
</table>
Ask questions using the Questions pane

Type your questions here!
Webinar Poll:

U.S. Department of Transportation
Federal Highway Administration
Project Overview and Context

David Jones
Federal Highway Administration (FHWA)
Office of Highway Policy Information

- Establishes data collection policy and guidelines
- Facilitates the application of technology
- Collects & analyzes highway-related data
- Provide technical assistance and training
- Motor fuel use, Highway financing, Driver’s licensing, Vehicle registration, NHTS, HPMS, WIM, TMAS
- Publications: C&P, Hwy Stats, TMG, HPMS

Project Overview and Context

Pedestrian Travel Monitoring, Count Locations and Technologies

Shawn Turner, P.E.
Texas Transportation Institute (TTI)
Pedestrian Travel Monitoring – Why?

If we don’t count it, it doesn’t count.

• Funding & policy decisions
• To show change over time
• Facility design or infrastructure improvement
• Planning and forecasting
• Economic impact
• Public health
• Safety
• Signal timing
• Crime prevention
Key Challenges with Counting Pedestrians

**TECHNICAL**
- Less confined to fixed lanes/paths
- Unpredictable movements
- Sensor blocking
- Travel in groups (occlusion)
- Weather
- Equipment is limited
- Differentiation between modes

**INSTITUTIONAL**
- Institutional inertia
- Staff unfamiliarity
- Different equipment than cars
- Different roads/areas than cars
Q1. What problems have you encountered in trying to count pedestrians?


<table>
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</tr>
<tr>
<td>Christiana Abildso, Morgantown WV</td>
<td>Have to identify a corridor to count; some cost issues; some issues on my side with user error when technology changes</td>
</tr>
<tr>
<td>Benjamin Krumenauer, ECWRPC</td>
<td>Thus far we have had great success using a variety of counting methods including remote video, field (to a lesser extent) and infrared counters. The biggest issue we have had is the shear size of our urbanized region. It is true that a pedestrian will not always follow a prescribed route, but for us it is the limited number of counters (6 total) and the myriad of locations needed</td>
</tr>
</tbody>
</table>
Pedestrian Counting Locations

- **Much wider variety of location types** than traditional traffic monitoring

- May use different technology/equipment at different location types
Pedestrian Counting Locations

- Traditional: Mid-block sidewalk parallel to street
Pedestrian Counting Locations

- Shared use paths
Pedestrian Counting Locations

- Intersections and crosswalks
Pedestrian Counting Locations

• Stairways, overpasses and underpasses
Pedestrian Counting Locations

- Crowded sidewalks, sometimes stationary pedestrians
Pedestrian Counting Locations

- Pedestrian malls or pedestrian-only streets
Pedestrian Counting Locations

• Select locations based on how you plan to use counts
  • Overall citywide trends?
  • Specific events or sites?
  • Focus on cycling? Walking? Both?
  • Focus on physical activity? Transportation-related? Both?
• Important to have permanent locations providing year-round data (Theo will explain)
### Counting Technologies

- **Primary factors:**
  - What are you counting?
  - How long? (permanent or portable)
- **Other factors:**
  - Cost
  - Accuracy
  - Ease of installation/use
  - What is everyone else using?

#### 1. What Are You Counting?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Bicyclists Only</th>
<th>Pedestrians Only</th>
<th>Pedestrians &amp; Bicyclist Combined</th>
<th>Pedestrians &amp; Bicyclist Separately</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inductance Loops&lt;sup&gt;1&lt;/sup&gt;</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td>$$</td>
</tr>
<tr>
<td>Magnetometer&lt;sup&gt;2&lt;/sup&gt;</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td>$-$$</td>
</tr>
<tr>
<td>Pressure Sensor&lt;sup&gt;2&lt;/sup&gt;</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td>$$</td>
</tr>
<tr>
<td>Radar Sensor</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td>$-$$</td>
</tr>
<tr>
<td>Seismic Sensor</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td>$$</td>
</tr>
<tr>
<td>Video Imaging: Automated</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td>$-$$</td>
</tr>
<tr>
<td>Infrared Sensor (Active or Passive)</td>
<td>○&lt;sup&gt;3&lt;/sup&gt;</td>
<td>●</td>
<td>●</td>
<td></td>
<td>$-$$</td>
</tr>
<tr>
<td>Pneumatic Tubes</td>
<td>●</td>
<td>○</td>
<td></td>
<td></td>
<td>$-$$</td>
</tr>
<tr>
<td>Video Imaging: Manual</td>
<td>○</td>
<td>○</td>
<td></td>
<td>●</td>
<td>$-$$$</td>
</tr>
<tr>
<td>Manual Observers</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>$-$$$</td>
</tr>
</tbody>
</table>

- ○ Indicates what is technologically possible.
- ● Indicates a common practice.
- ○ Indicates a common practice, but must be combined with another technology to classify pedestrians and bicyclists separately.
- $, $-, $-, $-, $-, $-$: Indicates relative cost per data point.
- <sup>1</sup> Typically requires a unique loop configuration separate from motor vehicle loops, especially in a traffic lane shared by bicyclists and motor vehicles.
- <sup>2</sup> Permanent installation is typical for asphalt or concrete pavements; temporary installation is possible for unpaved, natural surface trails.
- <sup>3</sup> Requires specific mounting configuration to avoid counting cars in main traffic lanes or counting pedestrians on the sidewalk.
Pedestrian Count Technologies

A LOT MORE INFO HERE:

TMG Chapter 4, pages 4-2 to 4-20
(https://www.fhwa.dot.gov/policyinformation/tmguide/)
NCHRP Report 797 Guidebook and Web-Only Document 205
(http://www.trb.org/PedestriansAndBicyclists/Blurbs/171973.aspx)
Emerging Technologies – On the Horizon!

- More automated video image processing
  - FLIR (formerly Traficon)
  - MotionLoft
  - Placemeter
- More mobile device ID
  - Bluetooth, WiFi, other location beacons
  - Location-based services: retail, tourism/wayfinding, special events, etc.
- Wearable fitness/health technology
  - Smart watches & fitness trackers
  - Smart clothing (wearable sensors, like Hexoskin)
  - Smart shoes etc.
Q2. Tell us about your pedestrian counting practices, including technologies and locations.


<table>
<thead>
<tr>
<th>Name and/or organization</th>
<th>Tell us about your pedestrian counting practices, including technologies and locations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krista Nordback, PSU</td>
<td>We've used passive infrared sensors for short duration counts on sidewalks and paths.</td>
</tr>
<tr>
<td>Kristin Bennett, City of Milwaukee</td>
<td>Hand counting peds during intersection turning movement counts; conducting hand counts to calibrate Eco Counter Pyro data collected on area trails (we have 2 Pyros now, adding two more).</td>
</tr>
<tr>
<td>Bo Ling, Migma Systems</td>
<td>Migma developed a ped counting system that can automatically count the number of pedestrians walking across the crosswalks, in both directions (e.g., north or south). Pedestrians walking in large groups can be counted with accuracy over 95%. Its technology is a combination of stereo camera and laser scanner. The system was developed under FHWA funding. Information can be found at: <a href="http://www.migmapd.com/migmapedcount.htm">http://www.migmapd.com/migmapedcount.htm</a></td>
</tr>
<tr>
<td>Benjamin Krumauer, ECWRPC</td>
<td>We have six (6) passive infrared counters that have a measured range of 25 ft made by TRAFx and two (2) pneumatic tube counters made by Eco-counter. This way we can separate the bicycle counts from the overall counts. We have had great success using the two options and the report programs are very handy. We also utilize the regions DOT and local municipal traffic camera systems to verify remote counts and conduct rapid counts of targeted areas. We have used manual counts in the field, but compared to the other forms, manual counts are far less efficient.</td>
</tr>
</tbody>
</table>

Share your response by typing in an unclaimed row. See what others have to say in real time.
Count Duration and Factoring

Theo Petritsch, P.E., PTOE
Sprinkle Consulting
Count Duration and Factoring

Automated counts –
• Recommended 7 days
• Up to 14 days

Manual counts –
• Minimum 4 hours
• 12 hours recommended (for time of day)
Count Duration and Factoring Magnitude and Variability

- If non-motorized traffic levels are high and consistent from day-to-day
  - Shorter duration counts may be considered
  - Longer term counts will be needed to confirm

- Weather is a significant factor in variability of non-motorized counts and should be noted during counts
  - Precipitation
  - Fog
  - High temperature
  - Low temperature
Count Duration and Factoring

- Identify what roadways or facilities are to be monitored
- Identify what traffic patterns are to be monitored
Count Duration and Factoring

- What sorts of facilities might require their own seasonal pattern groups?
Factoring – Classification of Facility

Non-motorized traffic patterns can often be classified into one of three categories:

- Commuter (work or school-based trips)
- Recreation and utilitarian
- Mixed trip purposes (both commuter and recreation and utilitarian)
Factoring – Classification of Facility
Establish Seasonal Pattern Groups

High Commute Trip Location

High Recreational Trip Location
Factoring – Classification of Facility
Establish Seasonal Pattern Groups

High Commute Trip Location

High Recreational Trip Location
Factoring – Classification of Facility
Establish Seasonal Pattern Groups

B90007 6TH AVE./VAUGHN ST.

High Commute Trip Location

B90004 US36

High Recreational Trip Location
Count Duration and Factoring

Adjustment Factors –

• MOY
• DOW (may vary by month)
• HOD (may vary by month or day of week)
• Occlusion
Factoring Short Duration Counts

- MOY
- DOW
- HOD (used only for partial day counts, which are not recommended)
- Occlusion
- Weather
135 users between 2:00 and 6:00 pm on a Tuesday in August. Manual counts of pedestrians

\[ \text{AADT} = 135 \times \text{MOY} \times \text{DOW} / (\% \text{ DAILY}) \]
Commuter Route Volume by Month of Year

MOY = \frac{AADT}{MADT} = \frac{1.0}{1.3} = 0.77
Recreational Route Volume by Month of Year

MOY = \frac{AADT}{MADT}

= \frac{1.0}{0.8}

= 1.25
Commuter Route Volume by Day of Week

DOW = \frac{AADT}{DADT}

= \frac{1.0}{1.2}

= 0.83

DADT = Average Daily Traffic for Day of Week
Recreational Route Volume by Day of Week

DOW = \frac{AADT}{DADT}

= \frac{1.0}{0.85}

= 1.18
Step 4: Establish Seasonal Pattern Groups

High Commute Trip Location

40.0% daily traffic
Step 4: Establish Seasonal Pattern Groups

![Graph showing high recreational trip location with 26.4% daily traffic]
Example

\[ \text{AADT} = 135 \times \text{MOY} \times \text{DOW/\%DAILY} \]

- Commuter Facility AADT
  \[ = 135 \times 0.77 \times 0.83 / 0.400 \]
  \[ = \text{215 pedestrians per day} \]

- Recreational Facility AADT
  \[ = 135 \times 1.25 \times 1.18 / 0.264 \]
  \[ = \text{754 pedestrians per day} \]
Q3. Describe your short duration and continuous pedestrian count programs.


<table>
<thead>
<tr>
<th>Name and/or organization</th>
<th>Describe your short duration and continuous pedestrian count programs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kristin Bennett, City of Milwaukee</td>
<td>No defined ped counting program or strategy at this time; only collected during intersection turning movement counts, cordon counts (very infrequently done), and on trails with our Eco Counter Pyros.</td>
</tr>
<tr>
<td>Christiana Abildso, Morgantown WV</td>
<td>We have had infrared sensors at 3 locations on our trail system for the last 9 months or so (but lost 3 months of data due to user error).</td>
</tr>
<tr>
<td>Benjamin Krumenauer, ECWRPC</td>
<td>I developed a counting program and procedure that outlines two duration formats: Option one is based on a three day count length and aligns closer with WisDOT. The second option is based on a seven day count length and captures a higher volume of users with full weekend and week days counted. We tend to follow the seven day format as it gets a statistically more significant volume of users. Our count system is based on mobile technology so we can maximize its utility throughout the three MPO area. Several area municipalities have installed permanent inductive Loop and IR systems, some of which have been measuring with no major issues for ten years.</td>
</tr>
</tbody>
</table>

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Data Management

Krista Nordback, Ph.D., P.E.
Transportation Research and Education Center (TREC)
Portland State University
Elements of Data Management

- Upload
  - Manual Counts
  - Automated Counts
- Storage
- Download
  - Data Visualization
  - Data Checking (QA/QC)
Many Formats
Standard Formats

Traffic Monitoring Guide Format (end of Chapter 7)
Data Transformation

- Automated counts
- Manual counts
- Turning movement counts

Standard format
Elements of Data Management

Manual Counts

Automated Counts

Upload

Storage

Download

Data Checking (QA/QC)

Data Visualization
Data Quality Checking

- Equipment verification checks
  - Initial and annual maintenance checks
  - Calibrate and compute adjustment factor
- Format checks & missing data
- Automated flags
  - Too many consecutive zeros
  - Over an upper bound
  - Repetitive data
  - Compare to previous counts
- Manual data check

![Graph of Total Count per Day]
Elements of Data Management

- Upload
  - Manual Counts
  - Automated Counts
- Storage
- Download
  - Data Checking (QA/QC)
  - Data Visualization
Example: Bike-Ped Portal Schema

- Segment Area
- Facilities
- Flows
- Detectors
- Count Descriptor
- Count Data
Elements of Data Management

Upload

Manual Counts

Automated Counts

Storage

Data Checking (QA/QC)

Data Visualization

Download
Bike Arlington

www.bikearlington.com
Weather

W&OD Columbia Pike

Temperature

Weather Conditions

Ped Count
8/22
2015: 949

Sunday

Saturday

Print Graph
Export to Excel
W&OD Columbia Pike

Temperature vs. Count

Sunday vs. Saturday
W&OD Columbia Pike

Wednesday

Temperature

Weather Conditions

W&OD Columbia Pike

<table>
<thead>
<tr>
<th>Time</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>7am</td>
<td>0</td>
</tr>
<tr>
<td>noon</td>
<td>20</td>
</tr>
<tr>
<td>7pm</td>
<td>40</td>
</tr>
</tbody>
</table>

Pick a mode.
Any mode.

Don't know which transportation option to choose?
Storage and Archival

THE PROBLEM

Local Agencies

Pedestrian counts live here

State Agencies

Some pedestrian counts live here.

Federal (FHWA)

No pedestrian counts live here.
Storage and Archival

THE SOLUTION

Local Agencies → pedestrian counts → State Agencies → pedestrian counts → Federal (FHWA)
Storage and Archival

Local Agencies → Data Warehouse → State Agencies

Data Warehouse

State Agencies

Federal (FHWA)

TMAS

U.S. Department of Transportation
Federal Highway Administration
Q4. Tell us about your pedestrian count data management. How do you manage and share your data?


<table>
<thead>
<tr>
<th>Name and/or organization</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Krista Nordback, PSU</td>
<td>We have created a bike/ped count archive for the nation’s count data. It’s at bp.its.pdx.edu right now. We’ll make it public soon. For now, we’ve loaded data from 11 counties in five states so far. It’s for segment (screenline) counts only right now, but includes manual and automated data, short duration and permanent counters. If you’d like more information let me know.</td>
</tr>
<tr>
<td>Kristin Bennett, City of Milwaukee</td>
<td>Intersection turning movement count data reports include peds but no GIS relationships to our count data (any of it). I maintain my own Eco counter data but freely share access to this data with Dr. Bob Schneider at UW-Milwaukee, counterparts at Milwaukee County Parks (which also have a couple EcoCounter pyros on trails), and the region’s MPO (SEWRPC) which has just started a non-motorized traffic data collection effort. I hope that SEWRPC might take the lead in hosting data for the region.</td>
</tr>
<tr>
<td>Christiaan Abildso, Morgantown WV</td>
<td>I collect the data and send to our trail director, she sends on to a regional rail-trail data collector. I also share our infrared counts with our City Engineer and MPO director. Just me as a volunteer helping out. No public sharing that I’m aware of.</td>
</tr>
<tr>
<td>Benjamin Krumenauer, ECWRPC</td>
<td>As a RPC, our data is managed in house through software provided by companies and custom documents I created. The data can easily be tweaked for any situation and when the uses are more extreme. I can place the data on the forms created in house. The data is available to any municipality who requests it and we regularly cc: our local partners to keep them up to date.</td>
</tr>
</tbody>
</table>

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Setting up a Count Program
Philadelphia Program Design

Scott Brady
Delaware Valley Regional Planning Commission (DVRPC)
Agenda

- Project Background
- Types of Counts
- Equipment & Database
- Examples of Data
• Forty years of history gathering data in the motorized world. Processes and programs are tried and true.
• First was a DVRPC Board insistence that bicycle and pedestrian data be included as part of the Center City Screen Line counts used for Travel Model Validation.
Components of a Monitoring Program (TMG Inspired)

- Permanent Count Program
- Cyclical Count Program
- Project Counts
Permanent Count Program

• Consists of sites where data is collected 24 hours a day, 365 days a year
• These sites are organized into “factor groups” whose locations have similar travel characteristics
• Data is used to develop seasonal correction factors, which when applied to short duration counts yield AADP, the correlative to AADT
• 18 sites on The Circuit, the regional trail network (12 of 12 installed; 6 pending)
• 10 in the City of Philadelphia (grant currently being evaluated); excluding Center City District installations
• Approximately 10 in the suburban counties (grant to be pursued)
Cyclical Count Program

- Consists of sites that are counted on a cyclical basis – generally a three year rotation
- Week long counts are collected, with raw data adjusted to AADP based on the seasonal factors provided by data from the permanent sites
- Data is used to track trends, either in mode share or at a specific site
**Project Counts**

- Consists of sites that are counted for a specific project or purpose
- Week long counts are collected, with raw data adjusted to AADP based on the seasonal factors provided by data from the permanent sites
- Data is used to establish facility use
Project Counts

- This type of count has been performed by the Office of Travel Monitoring for over 5 years
- Include before / after studies of TIGER Grant funded projects, counts for the City of Philadelphia Department of Health, periodic trail counts, even Old City “First Friday” tracking of pedestrian volumes
- To date, over 1,000 of these short duration counts have been completed
Location Selection – Permanent Count Program

- Sought a diversity of trail use types (recreation and commuter) and settings (urban, suburban, and rural)
- Counting equipment requires a paved surface
- Consulted with DVRPC’s counties and other stakeholders
- Staff selected 12 locations
- Worked with trail hosts to identify specific sites
Location Selection – Permanent Count Program
Standards and Guidelines – Permanent Count Program

• American Association of State Highway Transportation Officials (AASTHO) – signs and other traffic control devices should be placed no closer than 2 feet to the edge of the trail

• United States Access Board – tread obstacles cannot exceed one-half inch in height

• Local standards
Examples of Equipment

Permanent

Short Duration
Installation – Permanent Count Program
## Equipment Validation

**Validation of Automated Pedestrian Counting Equipment:** 50 Hours; 25,000 Observations; 6.22% Error

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Manual Count</th>
<th>Total Variance</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th St., Chestnut to Market Sts (W)</td>
<td>04/15/2016</td>
<td>12345</td>
<td>6789012345</td>
<td>3.21%</td>
</tr>
<tr>
<td>10th St., Locust to Walnut Sts (E)</td>
<td>04/15/2016</td>
<td>23456</td>
<td>6789012345</td>
<td>4.56%</td>
</tr>
<tr>
<td>Market St., 11th to 11th Sts (S)</td>
<td>04/15/2016</td>
<td>34567</td>
<td>6789012345</td>
<td>5.78%</td>
</tr>
<tr>
<td>7th St., Chestnut to Market Sts (W)</td>
<td>04/15/2016</td>
<td>45678</td>
<td>6789012345</td>
<td>6.09%</td>
</tr>
<tr>
<td>Broad St., Walnut to Sansome Sts (W)</td>
<td>04/15/2016</td>
<td>56789</td>
<td>6789012345</td>
<td>7.10%</td>
</tr>
</tbody>
</table>

### Comparative Statistics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather</td>
<td></td>
</tr>
<tr>
<td>Rain</td>
<td></td>
</tr>
<tr>
<td>Sunny</td>
<td></td>
</tr>
<tr>
<td>Fog</td>
<td></td>
</tr>
<tr>
<td>Snow</td>
<td></td>
</tr>
<tr>
<td>Wind</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td></td>
</tr>
<tr>
<td>Visibility</td>
<td></td>
</tr>
<tr>
<td>Wind Gust</td>
<td></td>
</tr>
</tbody>
</table>

### Notes

1. Photos: Images of the study locations showing pedestrian traffic and equipment placements.

---

**Attributes:**

- **Weather:** Rain, Sunny, Fog, Snow, Wind
- **Temperature:** 60°F
- **Visibility:** 1 mile
- **Wind Gust:** 25 mph

**Notes:** Photos of the study locations showing pedestrian traffic and equipment placements.
Bicycle and Pedestrian Web Viewer
## Pedestrian Count Detail

### DVRPC - Pedestrian Count

**TAKEN BY:** JH  |  **DATE:** 7/24/2013  |  **PROJECT:** 14-41-050  |  **STATION ID:**

**ROAD:** SCHUYLKILL RIVER TRAIL  |  **FROM:** LOCUST ST  |  **TO:** WALNUT ST BRIDGE

**STATE:** PA  |  **COUNTY:** PHILADELPHIA  |  **MCD:** 420160103 - CENTRAL

**SIDEWALK:**  |  **FC:** 19  |  **TYPE:** PEDESTRIAN

**DVRPC FILE #:** 102741  |  **COUNTER #:** 12-022  |  **WEATHER:** INTERNAL

| COMMENTS: |

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**Pedestrian SEASONAL FACTOR:** 0.900  |  **FACTOR:** 1.0622  |  **AADP:** 3.815
What recommendations would you give others that are just starting a pedestrian traffic monitoring program?


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<th>A</th>
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<tr>
<td><strong>Name and/or organization</strong></td>
<td><strong>What recommendations would you give others that are just starting a pedestrian traffic monitoring program?</strong></td>
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<td>Kristin Bennett, City of Milwaukee</td>
<td>Find some way to tie it back to performance measures that electeds/management care about as that may generate broader support, money for technology, support for partnership with area agencies, possibly university</td>
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<tr>
<td>Christiaan Abildso, Morgantown WV</td>
<td>Use the data in combination with intercept surveys to quantify the health and/or economic impact of trails (or other ped/bike corridor)</td>
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<td>Benjamin Krumauer, ECWRC</td>
<td>Make sure that the data collected is properly calibrated and verified. Once the data is collected, format it in a way that will be most beneficial to the target at hand. The data is powerful and always remember that even if the data shows that a future of current facility is not getting the numbers you expected, it is still important data that should be talked about. Make sure to also have a purpose for collecting the data and as Kristen Bennett stated above, tie it to existing metrics and performance measures.</td>
</tr>
</tbody>
</table>

Share your response by typing in an unclaimed row. See what others have to say in real time.
Contact Information

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