Lessons Learned from the FHWA Bicycle and Pedestrian Count Technology Deployment Pilot Project

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Presentation Overview

- Program objectives
- Background
- Participants
- Program support
- Count programs
- Challenges
- Next Steps & discussion

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Program Objective

Provide assistance (financial and technical) to 10 MPOs to learn more about how to establish an effective regional bicycle and pedestrian counting program using automated counting technology.
Background

- FHWA’s interest in improving data resources to support bicycle and pedestrian investments

- Pilot Project is a research and technology deployment effort to
  - Identify organizational and technical capacity needs at MPOs;
  - Develop resources for addressing these needs; and
  - Transfer lessons learned across the country

- Began May 1, 2015
Participating MPOs

• Objective was for MPOs to conduct data collection to be used at the regional planning level
• Selected MPOs
  – Providence Metropolitan Planning Organization (Providence, Rhode Island)
  – Greater Buffalo-Niagara Regional Transportation Council (Buffalo, New York)
  – Richmond Regional Transportation Planning Organization (Richmond, Virginia)
  – Puerto Rico Metropolitan Planning Organization (San Juan, Puerto Rico)
  – Palm Beach Metropolitan Planning Organization (Palm Beach County, Florida)
  – Fresno Council of Governments (Fresno, California)
  – Indianapolis Metropolitan Planning Organization (Indianapolis, Indiana)
  – Ohio-Kentucky-Indiana Regional Council of Governments (Cincinnati, Ohio)
  – Southeastern Wisconsin Regional Planning Commission (Milwaukee, Wisconsin)
  – Memphis Metropolitan Planning Organization (Memphis, Tennessee)
• Also included informal MPO participants
Program Support

• Technically a 1-year program (for assistance, but the funds have no near-term expiration)
• FHWA to provide $20,000 for purchasing of new counting equipment, MPO must provide a 20% match
• All participants are to provide a final report of experience, to be incorporated into the final program report (MPO reports due in May 2016)
Technical Assistance Team

• Organized by PBIC
  – Carl Sundstrom, PBIC
  – Daniel A. Rodriguez, UNC Chapel Hill
  – Bob Schneider, University of Wisconsin, Milwaukee
  – Frank Proulx, UC Berkeley, SafeTREC
  – Thomas Huber, Toole Design Group
  – Spencer Gardner, Toole Design Group

• Team conducted webinars, maintained a project website, and a participant listserv
Technical Assistance Program: Webinars

• Conducted 4 webinars plus a project kick-off
• Topics intended to coincide with MPOs timeline
• Materials from these webinars will be edited and made public.
Technical Assistance Program: Webinars

- Program Kick-off Call
  - Program logistics and overview
  - Purpose of a counting program
  - Key resources
  - Selecting locations & duration
  - Selecting equipment and vendors
  - Count technology overview
  - Vendor questions
Technical Assistance Program: Webinars

• Webinar 1
  – Context
  – Selecting locations
  – Example of selection locations and factor groups
  – Duration and accuracy
  – Permissions and installation
  – Calibration introduction

Source: Miranda-Moreno, Nosal, Schneider, & Proulx (2013)
Technical Assistance Program: Webinars

- Webinar 2
  - Site Selection/Equipment Placement
  - Calibration and Testing of New Equipment
  - Introduction to Data Management
Technical Assistance Program: Webinars

• Webinar 3
  – Factoring & Data Analysis
  – Download Data
  – Clean Data
  – Apply Automated Counter Correction Function
  – Analyze Data
    • Identify different types of activity patterns
    • Expand short-term counts to annual volume estimates (AADT)
  – Discussion of Progress & Challenges
Technical Assistance Program: Webinars

• Webinar 4
  – Using Your Data: Example Analysis Techniques
    • Using data from a statewide count program
    • Using count data to represent pedestrian exposure
    • University partnerships for leveraging count data
    • Demand estimation
Counters Selected

• MPOs mostly purchased tube and infrared counters

• Procurement:
  – Some MPOs were able to sole source through one vendor after conducting research
  – Others had to have a competitive bid process
MPO’s Count Program Goals

• Mix of objectives, many trail locations and some before/after analysis

• Examples:
  – Richmond – Bike boulevard corridor study, lending library for jurisdictions use for regional database
  – Indianapolis, Cincinnati – Combination of trails and city facilities
  – Milwaukee - Trails, comprehensive exam of dedicated facilities
Data Collected

- We have received sample data from Fresno and SEWRPC (Milwaukee)
- Will continue to ask MPOs for copy of data to help develop national database
Challenges

• Procurement challenges
  – All MPOs did some count sites, roughly half have collected counts in the field

• Coordination with other agencies
  – Both an issue of locating on facilities with other jurisdictional control and also forming new partners and institutional relationships
Next Steps and Discussion

- Outcomes report – developing resource and support for monitoring pedestrian and bicycle travel at the regional level
- Providing resource materials online

DISCUSSION QUESTIONS:
- Provide ideas about how best to promote bicycle and pedestrian counting
- For new FHWA resource development – Want agency feedback on why you are counting, what you are doing counts
- FHWA has strong Agency support – Provide any ideas about how to continue this momentum