



Bicycle and Pedestrian Counting Resources

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Cooperative Research Program

TEXAS A&M TRANSPORTATION INSTITUTE
COLLEGE STATION, TEXAS

in cooperation with the
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<http://tti.tamu.edu/documents/5-6927-01-P2.pdf>

Bicycle and Pedestrian Counting Resources

The Bicycle and Pedestrian Program has compiled a set of resources to answer your questions about nonmotorized counting, from site selection and counter setup to quality control and data uses. Check back frequently as this page is continuously updated with the latest guidance from TxDOT and best practices found in research.

Talk to an Expert

We encourage you to take a look at the resources on this page to answer any questions you may have, but if you can't find your answer, ask an expert.

- [TxDOT's Bicycle and Pedestrian Program](#) – For questions about TxDOT policy, the count equipment loan program, and information about districts.
- [Robert Benz, TTI Houston](#) – For questions about count site locations, equipment setup, and maintenance.
- [Phil Lasley, TTI Austin](#) – For questions about the Bicycle and Pedestrian Count Exchange (BP | CX), data quality and quality control, factoring, and data use.
- [Shawn Turner, TTI College Station](#) – For questions about Strava data, factoring, how to use data once you have it.

Topic Resources

The TxDOT Count Equipment Loan Program

TxDOT has developed a loan program for districts, cities, and other agencies who wish to develop their own count program.

[Click here](#) for more information about registering and acquiring the counters.

Count Site Selection and Installation

TxDOT and researchers have developed guidance on identifying count sites and installing permanent and short-duration count equipment.

For specific guidance on site selection, see slide 36-52 in the [Bicyclist and Pedestrian Count Data in Texas](#) training materials.

For specific guidance on count equipment installation and deployment, see slides 53-86 in the [Bicyclist and Pedestrian Count Data in Texas](#) training materials. You may also review the following videos:

- [How to install an Eco-Counter bicycle and pedestrian permanent counter.](#)
- [How to build an urban box for a TRAFx counter.](#)
- [How to install a TRAFx short-duration counter on a wooden post.](#)
- [How to install a TRAFx short-duration counter on a metal post.](#)

Additional resources can be found for common count equipment brands.

- [Eco-Counter](#)
- TRAFx ([Counter instructions](#) and [Communicator software](#))
- [TimeMark Incorporated](#)

The Bicycle and Pedestrian Count Exchange (BP|CX)

TxDOT and researchers have developed an online count exchange to import, manage, quality review, factor, and export your count data for use. You must register with the BP|CX to submit data.

- [BP|CX Public Visualization](#) – View all the counts performed in Texas in one place. View helpful statistics and download data from individual count locations.
- [BP|CX User Portal](#) – Register and upload data to the BP|CX. Quality review, factor, and bulk export data you own.
- [BP|CX User Manual](#) – Step-by-step instructions for using both the BP|CX Public Visualization and the BP|CX User Portal.

Other states, cities, and universities have also created nonmotorized count repositories that can be viewed online.

- [National Catalog of Bike and Pedestrian Data](#)
- [Colorado DOT](#)
- [Washington State DOT](#)
- [Arlington County, VA](#)
- [Los Angeles County, CA](#)
- [Boston, MA](#)
- [Eugene/Springfield, OR](#)
- [Philadelphia, PA](#)
- [Seattle, WA](#)
- [NC State University](#)
- [Portland State University Bike-Ped Portal](#)

General Resources

Key TxDOT Guidance Documents for Pedestrian and Bicyclist Counts

[Bicyclist and Pedestrian Count Data in Texas](#)

Training Materials, March 2020

- Count site selection.
- Counter installation and collecting count data.
- The quality review process and factoring
- Summarizing, reporting, and visualizing your data in the BP|CX.

[Bicyclist and Pedestrian Count Data in Texas](#)

Webinar, February 2020

- Overview of the TxDOT Bicycle and Pedestrian Program counting efforts.
- Why it is important to count bicyclists and pedestrians.
- Collecting count data.
- Summarizing, reporting, and visualizing your data.

[Project Summary Report](#)

Report 0-6927-PSR, August 2018

- Two-page summary of TxDOT Research Project 0-6927, which outlined a pedestrian and bicyclist count monitoring process and developed a consolidated database of pedestrian and bicyclist counts.

[Improving the Amount and Availability of Pedestrian and Bicyclist Count Data in Texas](#)

Report 0-6927-R1, February 2019

- A comprehensive research report describing the state of practice, monitoring process, site selection, counter equipment, pilot tests, crowdsourced data, seasonal adjustment factors, and the statewide database.

[Guide for Seasonal Adjustment and Crowdsourced Data Scaling](#)

Report 0-6927-P6, December 2018

- Practitioner's guide for applying seasonal adjustment factors to short duration counts, as well as scaling crowdsourced data samples to represent total biking activity.

Key National Guidance Documents for Pedestrian and Bicyclist Counts

[FHWA 2016 Traffic Monitoring Guide](#)

Chapter 4 Traffic Monitoring for Non-Motorized Traffic

- Automatic counter technology and equipment
- Systematic monitoring using combination of permanent and short-duration count sites
- Non-motorized traffic patterns
- Standardized non-motorized traffic data format

[Coding Nonmotorized Station Location Information in the 2016 Traffic Monitoring Guide Format](#)

Report FHWA-HEP-17-011, 2016

- Extensive guidance and interpretation on the standardized non-motorized traffic data format and attributes in the Traffic Monitoring Guide
- Relevant for submitting non-motorized count data to FHWA's Travel Monitoring Analysis System

[FHWA Bicycle-Pedestrian Count Technology Pilot Project - Summary Report](#)

Report FHWA-HEP-17-012, 2016

- Automatic counter technology and equipment
- Identifying suitable count locations
- Practical lessons learned in collecting and using count data

[Guidebook on Pedestrian and Bicycle Volume Data Collection](#)

NCHRP Report 797, 2014

- Systematic monitoring of counts
- Automatic counter technology and equipment, calibration and validation, and technology evaluation

[Methods and Technologies for Pedestrian and Bicycle Data Collection: Phase 2](#)

NCHRP Web-Only Document 229, 2016

- Extensive and most up-to-date evaluation of automatic counter technology

[Exploring Pedestrian Counting Procedures: A Review and Compilation of Existing Procedures, Good Practices, and Recommendations](#)

Report FHWA-HPL-16-026, May 2016

- Automatic counter technology and equipment
- Automatic counter validation and calibration
- Recommended count practices for various facility types
- Data management procedures (quality assurance, metadata, data analysis)

[Innovation in Bicycle and Pedestrian Counts: A Review of Emerging Technology](#)

Alta Planning + Design, 2016

- Automatic counter technology and equipment
- Innovative and emerging technology for non-motorized counts

H-GAC Resources for Pedestrian and Bicyclist Counts

- [Pedestrian and Bicyclist Counts Studies](#)
- [Pedestrian and Bicyclist Count and Demand Estimation Study](#)
- [Pedestrian and Bicyclist Counting Workshop](#)