



About Data & Modeling

SPC continually researches, acquires, compiles and maintains large amounts of data, maps and other information from a variety of sources to support both in-house and outside agency planning activities. The wide range of data resources readily available through SPC helps to advance many projects, programs and plans. Key data items are made available on SPC's website through SPC's Data Library.

SPC is a Regional Affiliate of the Pennsylvania State Data Center (PaSDC). In this role, SPC operates as an extension of the PaSDC by responding directly to the information needs of requestors in the SPC region. SPC provides ongoing access to information available from the PaSDC and assists in disseminating data released by the U.S. Census Bureau. Data analysis, technical assistance, and consultation services are also provided.

One of the fundamental uses for SPC's data resources is for the maintenance and calibration of SPC's regional models. These models are essential to providing planning support to PennDOT, SPC's members, and other regional partners, as well as for developing the LRP and TIP and in processing air quality conformity determinations.

SPC utilizes a REMI TranSight forecasting model to develop regional population, household and employment forecasts for each member county and the City of Pittsburgh. SPC's Mature Economic Region Land Use Allocation Model (MERLAM) is used to allocate the regional forecasts derived from the REMI TranSight model to the municipalities and traffic analysis zones in the SPC region.

SPC's current regional travel demand model was designed to use the Citilabs Cube Voyager software. The model is a traditional 4-step travel demand model that utilizes outputs from MERLAM for trip generation. SPC's travel demand modeling process provides data and analysis to help the region prepare effective transportation plans, manage congestion and meet air quality standards. SPC routinely provides technical assistance to its members and partner agencies to develop traffic forecasts and air quality assessments for key transportation and economic development improvements throughout the region.

The Clean Air Act (CAA) requires that transportation planning must be consistent with air quality goals in areas experiencing air quality problems. This is determined through the transportation conformity process. Transportation conformity applies to transportation plans, programs, and projects receiving federal funding or requiring federal approvals in areas that do not meet, or previously have not met, air quality standards for ozone, carbon monoxide, particulate matter, or nitrogen dioxide. These areas, designated by the federal Environmental Protection Agency (EPA), are known as nonattainment areas or maintenance areas, respectively. SPC utilizes EPA's Motor Vehicle Emissions Simulator (MOVES) model to estimate current and future emissions from mobile sources in the SPC region.

Significant ongoing data collection, data management and coordination is needed with federal, state and local agencies to maintain SPC's data systems and models.

For more information please contact:

Southwestern
Pennsylvania
Commission

(412) 391-5590
spcregion.org

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