Delaware Valley Regional Planning Commission
Information Resource Exchange Group

Highlights from meeting of Wednesday, March 02, 2011

Presentation

"DVRPC's New Regional Network Model - Using Google Transit Feeds and OpenStreetMap in Transportation Planning"

Wolfgang Scherr, a Senior Transportation Engineer in the Office of Modeling and Analysis at DVRPC gave an overview of travel forecasting at DVRPC. Eight full-time staff are responsible for the majority of travel forecasting in this region, which includes simulations for air quality, the Long-Range plan, and special corridor projects. The purpose of a network model is to forecast supply, and allows the computation of travel time, travel cost, and routes for highway and transit users. It requires accurate geography and routable street and transit data. TIM 1.0 (the current model) was created in 2009 mainly by migrating the legacy network model to the latest software. The current model extends over the entire 9-county DVRPC region, and includes major highways and arterials. Upon starting at the Commission just over a year ago, Wolfgang was assigned the task of building a new regional network model (TIM 2.0), which is in development and uses new data sources, such as Google Transit Feeds (GTFS) and OpenStreetMap (OSM). Web 2.0 data such as OSM and GTFS is desirable because there is no cost and no copyright restrictions on its use. Over 170 transit agencies in the USA and Canada use GTFS, including SEPTA, NJ Transit and PATCO. TIM 2.0 expands on the existing model by covering 25 counties in an extended area, which covers 99% of the Journey-to-Work shed and provides better forecasting at the edge of the region. The new model also includes every street in the DVRPC region plus major highways in the extended area. Linework is also visually more accurate than the legacy network model. Street segments, transit stops, transit service patterns and traffic analysis zones (TAZ) have all been significantly increased in TIM 2.0. Wolfgang also demonstrated a few applications, including Transit service analysis, Network flow simulation and Travel time computation. Wolfgang ended with an open question, on whether the use of OSM would be a one-time, one-way data exchange, or if our enhancements would somehow be fed back into the project. As there is no active user group in the Delaware Valley for OSM, what role could the Commission play in the future of OSM?

Discussion/Demonstrations

"Accessing and Properly Using Census Data"

Whittona Burrell, Information Services Specialist and Noemi Mendez, Geographer from the U.S. Census Bureau provided members with literature on current and soon to be released Census data products, such as the ACS, Redistricting Data (PL 94-171), the 2010 Census and Longitudinal Employer-Household Dynamics (LEHD) and answered questions from attendees. *(NOTE: At the time of the meeting, only NJ and MD data had been released for 2010, but since then both DE and PA data has also been released.)* The data release schedule as printed in September 2009 is still accurate. FactFinder2 is replacing the legacy FactFinder as the place for releasing new data, and users are encouraged to get familiar with the new system on the Census Bureau's website. Questions regarding geography for the ACS and the 2000 Census Long Form data were discussed. The 2010 Count Question Resolution (CQR) program, which is the official mechanism for challenge counts of housing units and group quarters for your government, begins on June 1st 2011. Only certain criteria can be challenged, and must be approved by the highest level official.

"Census Data Profile Web Map"

Chris Pollard is a Senior GIS Specialist at DVRPC. Why recreate what the Census Bureau already does (such as County and Municipal profiles). To allow users to quickly access Census Data Profiles, including the recently released municipal-level American Community Survey (ACS) profiles, Chris has created a simple map-based navigation tool to the profiles for the DVRPC Region on FactFinder2. Where FactFinder2 requires many clicks to get to the information you need, DVRPC's Web Map requires 5 or less clicks, with just one additional click to view data from adjacent municipalities. Chris hopes to expand on this as other data sets are released.

"ACS Data Import Tool"

Elizabeth He is the Database Administrator at DVRPC. As part of her role at the Commission, she needed to download the first American Community Survey (ACS) 5 year estimates, which were released in December 2010. With the elimination of the long form in the Year 2000 Census, the ACS provides critical data for planning purposes and this was the first release of ACS that provided data down to the municipal, census tracts, and block group geographies. For the casual user, most of the data can be found on the American FactFinder website, however, not all variables are represented there. When users need more detailed data, there are 295 tables to be downloaded as comma separated value (.csv) files and the user will need Microsoft Excel 2007 to extract any Block Group or Block-level data. Elizabeth calculated that it would take up to 41

hours to import 117 .csv files for just one state (and DVRPC collects Census Data for a 28-County Extended Data Service area covering four states). Since this would be a task she would need to perform annually, Elizabeth was determined to find a better way. Using open source programming, Elizabeth created an ACS Data Java Import Tool to read the files one at a time, create the tables needed in DVRPC's enterprise database (Oracle), import the data and generate a log file (for verification and trouble shooting). During her short presentation, Elizabeth demonstrated her tool by importing data for the state of Delaware into properly created tables in the Oracle database in just a couple of minutes. Her program can be easily customized for other database architectures, and she is offering it for free to any of DVRPC's partners that are interested in it. She is also talking with the Regional Census Bureau Office to see if there are other ways of sharing this time-saving tool.

Member Roundtable

Seth Hackman announced NJ DEP's 24th Annual NJDEP Mapping Contest which will take place on Thursday, April 21st in Trenton and is open to employees in the public and nonprofit sectors as well as students. All winning maps will be sent out to the Esri Conference in San Diego, CA. Kim Korejko from DVRPC won 1st place in last year's contest in the category "Best Data Integration" for her map "*Greater Philadelphia Food System*", which was selected by Esri for inclusion in the 2010 Esri Map Book, which is a great honor. Published annually since 1984, the Esri Map Book is the only publication dedicated to acknowledging the important and innovative accomplishments of GIS users around the world.

DVRPC Work Program Updates

Joe Fazekas highlighted a few of the 18 reports that were released by DVRPC since the December meeting. Glenn McNichol reported on the 2010 Aerial Imagery. DVRPC recently received final imagery for Burlington, Mercer and Philadelphia counties. Camden and Gloucester county imagery is expected by the end of March with Chester county due in April. With aerials completed, DVRPC is now evaluating the methodology for the 2010 Land Use update. An intern is researching how others are currently doing it, and county governments will receive an email shortly to join the discussion on how we can make this an even better product. Will Stevens reported on the Region-wide Transportation GIS project. DVRPC has accepted final delivery on a product from GeoDecisions, which was not a complete product, but it was the best that they could produce. Additional questions need to be answered at the local level, which DVRPC has been sorting through, identifying data gaps and ways to close those gaps so that counties have something they can use and keep current.

Information Items

- 45 people attended this meeting. The next IREG meeting will be held on June 1, 2011.
- Government Web Professionals of NJ will have their next meetings on April 1, 2011 (Morris County) and June 2011 (Burlington County).
- 24th Annual GIS-T Symposium will be held March 28-30, 2011 in Hershey PA.
- 19th Annual PA GIS Conference will be held May 23-26, 2011 in Grantville PA.
- Mid-Atlantic Geospatial Transportation Users Group will meet on June 2, 2011 in Exton PA.