Paper Session:

4154 Handling attribute data uncertainty in geographical analysis

is scheduled on Friday, 4/11/2014, from 8:00 AM - 9:40 AM in Grand Salon C, Marriott, Second Floor

Sponsorship(s):
Cartography Specialty Group
Spatial Analysis and Modeling Specialty Group
Geographic Information Science and Systems Specialty Group

Organizer(s):
Min Sun - GMU
David W. Wong - University of Hong Kong

Chair(s):
Min Sun - GMU

Abstract(s):

8:00 AM Author(s): *Nicholas Nagle - University of Tennessee; Oak Ridge National Laboratory

Abstract Title: *Small Area Survey Estimation with Incomplete or Uncertain Administrative Records*

8:20 AM Author(s): *Min Sun - George Mason University
David Wong - Hong Kong University

Abstract Title: *Using spatial aggregation to reduce sampling error*

8:40 AM Author(s): *James L Wilson - Northern Illinois University
Christopher J Mansfield - East Carolina University

Abstract Title: *Issues in Rezoning Mortality Statistics*

9:00 AM Author(s): *Amy L Griffin - UNSW Canberra
Jason Jurjevich - Portland State University
Meg Merrick - Portland State University
Seth Spielman - Colorado University at Boulder
Nicholas Nagle - University of Tennessee at Knoxville
David Folch - Colorado University at Boulder

Abstract Title: *Which attribute uncertainty visualization techniques support decision making among urban planning students making decisions with American Community Survey data?*

9:20 AM Author(s): *Tunaggina Khan -
Kevin M. Curtin -

Abstract Title: *EVALUATING THE ERRORS ASSOCIATED WITH ZIP CODE POLYGON WHEN EMPLOYED FOR SPATIAL ANALYSES*

Session Description: Attributes of spatial data may include population, health and

economic characteristics of geographical features. Most attribute data are in fact estimates derived from samples. Therefore, errors in the estimates with sampling error as a major source are unavoidable and thus create uncertainties. However, analysis and visualization of spatial data often ignore these uncertainties in the data, and error information, even if provided, is usually discarded. Thus analysis results may be biased and provide misleading conclusions. What spatial data users should do, particularly in conducting spatial analysis and mapping, to take attribute error into consideration has not been discussed thoroughly.

We invite papers that offer ideas about how attribute data uncertainty should be considered in spatial analysis and mapping at the 2013 Association of American Geographers Annual Meeting in Tampa, FL. Topics may include but are not limited to:
1. Mapping and geovisualization of estimates and associated data uncertainty metrics
2. Methods and technologies to "reduce" error and control error propagation
3. Computational or information systems that support geospatial studies with data uncertainty information
4. Spatial analysis applications in population, health and economic geography with error information incorporated.
To be a presenter in this session, please:
1. Register and submit your abstract online following the AAG Guidelines (http://www.aag.org/cs/annualmeeting).
2. Email your presenter identification number (PIN), paper title, and abstract to Min Sun (msun@gmu.edu) by Nov 14, 2013.

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