

# Curriculum Vita

## Nicholas N. Nagle

University of Tennessee-Knoxville  
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865-974-6035

Revised 9 Aug 2016

### Research Expertise

*Geographic Information Science*: spatial statistics, small area estimation, survey methodology  
*Population Geography*: small area demography, population forecasting  
*Statistical mapping*: Visualizing uncertain spatial data

### Teaching Expertise

*Quantitative Methods in Geography*: Spatial and temporal statistics, sample design  
*Urban Geography*: neighborhood segregation, local governance and planning, city life

### Education

Ph.D., University of California, Santa Barbara, 2005, Geography. Thesis: "Continuous field statistical methods for spatial analysis in the social sciences"  
M.A., University of California, Santa Barbara, 2002, Geography. Thesis: "A point-based regression analysis of industrial location"  
M.A., University of California, Santa Barbara, 2001, Economics  
B.A., University of Chicago, 1999, Public Policy

### Appointments

2015–present. Associate Professor, Department of Geography, University of Tennessee  
2009–2015. Assistant Professor, Department of Geography, University of Tennessee  
2012–present. UT Joint Faculty Affiliate, Oak Ridge National Laboratory.  
2009–2012. Research Assistant Professor, Center for Business and Economic Research, University of Tennessee.  
2005–2009. Assistant Professor, Department of Geography, University of Colorado at Boulder.

### Articles Published in Refereed Journals

18. Amy Rose and Nicholas N. Nagle. 2016. "Validation of Spatiodemographic Estimates Produced Through Data Fusion of Small Area Census Records and Household Microdata." *Computers, Environment and Urban Systems*. 1 August, 2016.
17. Kathryn Grace, Nicholas N. Nagle and Greg Husak. 2016. "Can small-scale agricultural production improve children's health? Examining stunting vulnerability among very young children in Mali, West Africa" *Annals of the Association of American Geographers*. Forthcoming.
16. Kathryn Grace and Nicholas N. Nagle. 2015. "Using high resolution remotely sensed data to examine the relationship between agriculture and fertility in a pre-transitional

setting: A case study of Mali." *The Professional Geographer* 67(4): 641-654.  
<http://dx.doi.org/10.1080/00330124.2015.1032899>

15. Emily J. Smith, Christopher S. Marcum, Adam Boessen, Zack W. Almquist, John R. Hipp, Nicholas N. Nagle and Carter T. Butts. 2015. "The relationship of age to personal network size, relational multiplexity, and proximity to alters in the Western United States." *The Journals of Gerontology, Series B - Social Science*. 70(1): 91-99.
14. Anne Kershenbaum, Josh Price and Nicholas N. Nagle and Paul Campbell Erwin. 2014. "The pattern of association between US economic indicators and infant mortality rates at the state level." *Journal of Health Care for the Poor and Underserved*, 25(3): 1332-1448. <http://dx.doi.org/10.1353/hpu.2014.0144>
13. Adam Boessen, John R. Hipp, Emily J. Smith, Carter T. Butts, Nicholas N. Nagle, and Zack Almquist. 2014. "Networks, space and residents' perception of cohesion." *American Journal of Community Psychology*. 53(3-4): 447-461.  
<http://dx.doi.org/10.1007/s10464-014-9639-1>
12. Nicholas N. Nagle, Barbara P. Battenfield, Stefan Leyk, and Seth Spielman. 2014. "Dasymetric Modeling and Uncertainty." *Annals of the Association of American Geographers*. 104(1): 80-95. <http://dx.doi.org/10.1080/00045608.2013.843439>
11. Stefan Leyk, Matt Ruther, Barbara P. Battenfield, Nicholas N. Nagle, and Alexander Stum. 2014. "Modeling residential developed land in rural areas: A size-restricted approach using parcel data." *Applied Geography*. 47: 33-45.  
<http://dx.doi.org/10.1016/j.apgeog.2013.11.013>
10. Seth E. Spielman, David Folch and Nicholas N. Nagle. 2014. "Understanding uncertainty in the American Community Survey." *Applied Geography*. 46: 147-157.  
<http://dx.doi.org/10.1016/j.apgeog.2013.11.002>
9. Stefan Leyk, Barbara P. Battenfield, Nicholas N. Nagle, and Alexander Stum. 2013. "Establishing relationships between parcel data and landcover for demographic small area estimation." *Cartography and Geographic Information Science*. 40(4): 305-315.  
<http://dx.doi.org/10.1080/15230406.2013.782682>.
8. John R. Hipp, Carter T. Butts, Ryan Acton, Nicholas N. Nagle, and Adam Boessen. 2013. "Extrapolative simulation of neighborhood networks based on population spatial distribution: Do they predict crime?" *Social Networks*. 35(4): 614-625.  
<http://dx.doi.org/10.1016/j.socnet.2013.07.002>.
7. Matt Ruther, Galen Maclauren, Stefan Leyk, Barbara Battenfield, and Nicholas N. Nagle. 2013. "Validation of spatially allocated small area estimates for 1880 census demography." *Demographic Research*. 29: 579-616.  
<http://dx.doi.org/10.4054/DemRes.2013.29.22>

6. Stefan Leyk, Barbara Buttenfield, and Nicholas N. Nagle. 2013. "Modeling ambiguity in census microdata allocations to improve demographic small area estimates." *Transactions in Geographic Information Science*. 17(3): 406–425.  
<http://dx.doi.org/10.1111/j.1467-9671.2012.01366.x/>
5. Stefan Leyk, Nicholas N. Nagle, and Barbara Buttenfield. 2013. "Maximum entropy dasymetric modeling for demographic small area estimation." *Geographical Analysis*. 45: 285–306. <http://onlinelibrary.wiley.com/enhanced/doi/10.1111/gean.12011/>
4. Carter T. Butts, Ryan M. Acton, John R. Hipp, and Nicholas N. Nagle. 2012. "Geographical variability and network structure." *Social Networks*. 34(1): 82–100.  
<http://dx.doi.org/10.1016/j.socnet.2011.08.003>
3. Nicholas N. Nagle, Phaedon Kyriakidis, and Stuart Sweeney. 2011 "A geostatistical linear regression model for small area data." *Geographical Analysis*. 43(1): 38–60.  
<http://dx.doi.org/10.1111/j.1538-4632.2010.00807.x/>
2. Nicholas N. Nagle. 2010. "Geostatistical smoothing of areal data: Using factorial kriging to plot employment concentration." *Geographical Analysis*. 42(1): 99–117.  
<http://dx.doi.org/10.1111/j.1538-4632.2009.00784.x/>
1. Nicholas N. Nagle. 2009. "Spatial linear regression from census microdata: Combining microdata and small area data." *Environment and Planning A*. 41: 2215–2231.  
<http://dx.doi.org/10.1068/a41273>

### **Manuscripts Under Preparation**

Nicholas N. Nagle and Ephraim Love. "The statistical foundations of Dasymetric Modeling"  
To be submitted to *International Journal of Geographic Information Science*.

Nicholas N. Nagle. "A Generalized Linear Modeling Framework for Dasymetric Mapping"  
To be submitted to *Annals of the Association of American Geographers*.

Nicholas N. Nagle and Jesse Piburn. "A New Method for Visualizing Uncertain Data in Choropleth Maps." To be submitted to *Cartography and Geographic Information Science*

Nicholas N. Nagle, Carter Butts, John Hipp and Adam Boessen. "Large Scale, Spatial Structure in Personal Networks across the Western United States." This manuscript was reviewed and accepted for presentation at the 2014 meeting of the Population Association of America.

### **Papers in Refereed Conference Proceedings**

9. April Morton, Jesse Piburn, Ryan McManamay, Nicholas Nagle and Robert Stewart. "A Dasymetric-Based Monte Carlo Simulation Approach to the Probabilistic Analysis of Spatial Variables." *GIScience 2016. Proceedings*. Montreal, Canada. September 27-30.
8. April Morton, **Nicholas Nagle**, Jesse Piburn, Robert N. Stewart, Ryan Mcmanamay. 2016. "A hybrid dasymetric and machine learning approach to high-resolution residential electricity consumption modeling." *Proceedings of the International Conference on Geocomputation*. Conditionally Accepted 19 January, 2016.
7. Stefan Leyk, Barbara P. Bittenfield, **Nicholas N. Nagle**, and Alexander K. Stum. 2013. "Identifying Residential Land in Rural Areas to Improve Dasymetric Mapping." *Proceedings of the International Cartographic Conference*. Dresden, Germany. 25–30 August.  
[http://www.icc2013.org/\\_contxt/\\_medien/\\_upload/\\_proceeding/370\\_proceeding.pdf](http://www.icc2013.org/_contxt/_medien/_upload/_proceeding/370_proceeding.pdf)
6. Seth Spielman, David Fold, John Logan and **Nicholas N. Nagle**. 2012. "Thinking inside the box: mapping the microstructure of urban environments (and why it matters)." *AutoCarto 2012*. Columbus, Ohio.  
[http://www.cartogis.org/docs/proceedings/2012/Spielman\\_etal\\_AutoCarto2012.pdf](http://www.cartogis.org/docs/proceedings/2012/Spielman_etal_AutoCarto2012.pdf).
5. **Nicholas N. Nagle**, Barbara P. Bittenfield, Stefan Leyk and Seth Spielman. 2012. "An Uncertainty-Informed Penalized Maximum Entropy Dasymetric Model." *GIScience 2012. Seventh International Conference on Geographic Information Science*. Extended abstract available online at  
[http://www.giscience.org/proceedings/abstracts/giscience2012\\_paper\\_179.pdf](http://www.giscience.org/proceedings/abstracts/giscience2012_paper_179.pdf).
4. Stefan Leyk, Barbara P. Bittenfield and **Nicholas N. Nagle**. 2010. "Uncertainty in Demographic Small Area Estimates." In Tate, Nicholas J. and Peter F. Fisher (Eds) *Accuracy, 2010: Proceedings of the 9<sup>th</sup> International Symposium on Spatial Accuracy*, Leicester, UK. Available online at <http://www.spatial-accuracy.org/Accuracy2010>.
3. Phaedon C. Kyriakidis and **Nicholas N. Nagle**. 2010. "Geostatistical Regression for Areal Data." In Tate, Nicholas J. and Peter F. Fisher (Eds) *Accuracy, 2010: Proceedings of the 9<sup>th</sup> International Symposium on Spatial Accuracy*, Leicester, UK. Available online at <http://www.spatial-accuracy.org/Accuracy2010>.
2. **Nicholas N. Nagle**. 2007. "On Block Bootstrapping Areal Data." *Proceedings of the 9<sup>th</sup> International Conference on Geocomputation*. Maynooth, Ireland.  
[http://www.geocomputation.org/2007/7C-Spatial\\_statistics\\_3/7C1.pdf](http://www.geocomputation.org/2007/7C-Spatial_statistics_3/7C1.pdf)
1. Phaedon C. Kyriakidis, Michael F. Goodchild and **Nicholas N. Nagle**. 2007. "Geostatistical Alternatives for Incorporating Covariates in Areal Interpolation." *Proceedings of the 9<sup>th</sup> International Conference on Geocomputation*. Maynooth, Ireland.

## Peer-reviewed Research Grants

### Grants Awarded

Year	Title	Amount to Dr. Nagle's Institution
2014	Department of Energy, Oak Ridge National Laboratory. A high-performance, data-driven simulator of the American Population for Urban Dynamics. Laboratory Director's Research and Development Fund. <b>Role: PI.</b> Co-Investigators: Michael Hilliard, Robert N. Stewart & Devin White.	\$320,000
2012	National Science Foundation. NCRN-SN: SSCRN: Spatial Sciences Census Research Node-Supplement PI: Seth Spielman, University of Colorado, Boulder. <b>Role: co-PI.</b> Total Funding Amount: \$275,000	\$56,531
2011	National Science Foundation. NCRN-SN: SSCRN: Spatial Sciences Census Research Node. PI: Seth Spielman, University of Colorado, Boulder. <b>Role: co-PI.</b> Proposal Number: SES-1132008. Total funding amount: \$1,195,245.	\$512,022
2010	National Science Foundation. Collaborative Research: Putting People in Their Place: Constructing a Geography for Census Microdata. <b>Role: PI.</b> Proposal Number: BCS-0961294.	\$ 293,433
2008	National Science Foundation. Large-scale Spatially Embedded Interpersonal Networks: Measurement, Modeling and Dynamics. PI: Carter Butts, UC Irvine. <b>Role: co-PI</b> and Project Director for Colorado subcontract. NSF: Human and Social Dynamics. Proposal Number: BCS-0827027. Total funding amount: \$ 749,245.	\$ 149,276

### Grants Under Review

Year	Title	Amount to Dr. Nagle's Institution
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### Grants Submitted but not Awarded in the last 5 years

Year	Title	Amount to Dr. Nagle's Institution
2014	National Institutes of Health. Improving spatial-temporal certainty of population data for health studies. <b>Role: PI.</b> Co-Investigators: Budhendra Bhaduri & Robert Stewart – ORNL; Elisabeth Root – CU-Boulder; Xun Shi – Dartmouth; Mike Emch – UNC-Chapel Hill.	\$2,994,285

2013	National Institutes of Health. Demographic and Spatial Structure of Health Information and Support Networks: Measurement and Modeling. PI: Carter Butts, UC-Irvine. <b>Role: co-Investigator.</b> Total funding amount: \$2,488,866	\$342,942
2013	National Science Foundation. IBSS: Comparative Analysis of Interpersonal Networks Across Urban Areas: Geography, Structure and Community Outcomes. PI: Carter Butts, UC-Irvine. <b>Role: co-PI.</b> Total funding amount: \$999,945	\$169,977
2012	National Aeronautics and Space Association. Testing the Hypothesis of Fine-Scale Fluvial Dissection on Titan. PI: Devon Burr, UTK (Earth and Planetary Sciences). <b>Role: co-PI.</b>	\$489,801

## Internal Research Grants

### Grants Awarded

Year	Title	Amount
2013	University of Tennessee. Summer Graduate Research Assistant Award. New data for studying the relationship between land cover and population health: Improving the detection of land cover in moderate resolution, multi-temporal imagery. This competitive grant pays for graduate student research assistance during the summer to develop fundable research ideas.	\$3,600

### **Presentations** (student presentations are denoted by an asterisk)

#### **2016**

- Nagle, Nicholas N. "Statistical dasymetric modeling for small area population estimates." Annual Conference of the Association of American Geographers, San Francisco, California.
- Sinha, Parmanand; Nicholas Nagle "Effective sample size for the American Community Survey in the presence of spatial autocorrelation." Annual Conference of the Association of American Geographers, San Francisco, California.
- Stachowiak, L.A.\*, H.D. Grissino-Mayer, and N.N. Nagle. Multiscale Spatial Analyses of Fire Activity and Surface Roughness in a Pine Rockland Ecosystem, Big Pine Key, Florida, USA. Annual Conference of the Association of American Geographers, San Francisco, California.

#### **2015**

- Nagle, Nicholas. "Geographic Aspects of Direct and Indirect Estimators for Small Area Estimation." Presentation at the National Academies, Committee on National Statistics (CNSTAT). "Presenting the NSF-Census Research Network". Washington, DC. 8 May.
- Nagle, Nicholas. "Dynamic Time Series models for Modis NDVI Time Series" Annual Meeting of the Association of American Geographers. Chicago, IL. 23 April.

#### **2014**

- Nagle, Nicholas. "Survey weighting with informative but imprecise benchmarks." Part of the NSF-NCRN Virtual Seminar Series. 5 November

Nicholas N. Nagle. *Invited*. "'That's about the size of it': geographic scale and small-area estimation."

Annual Meeting of the Population Association of America. Boston, Massachusetts. 3 May.

Nicholas N. Nagle, Carter Butts, John Hipp and Adam Boessen. "Large Scale, Spatial Structure in Personal Networks across the Western United States: Evidence from a Geocoded, Randomized Survey." Annual Meeting of the Population Association of America. Boston, Massachusetts. 1 May.

Nicholas N. Nagle. "Small Area Survey Estimation with Incomplete or Uncertain Administrative Records." Annual Meeting of the Association of American Geographers. Tampa, Florida. 11 April.

Amy L. Griffin, Jason Jurjevich, Meg Merrick, Seth Spielman, Nicholas Nagle and David Folch. "Which attribute uncertainty visualization techniques support decision making among urban planning students making decisions with American Community Survey data?" Annual Meeting of the Association of American Geographers. Tampa, Florida. 11 April.

Amy N. Rose and Nicholas N. Nagle. "Increasing the Demographic Resolution of Large Area Population Distribution Data." Annual Meeting of the Association of American Geographers. Tampa, Florida. 10 April.

Lauren A. Stachowiak\*, Henri D. Grissino-Mayer, Nicholas N. Nagle and Grant L. Harley. "Applied GIS and Fire Behavior in a Pine Rockland Ecosystem, Big Pine Key, Florida, USA." Annual Meeting of the Association of American Geographers. Tampa, Florida. 8 April.

### **2013**

Sarah L. Lewis-Gonzales\*, Nicholas N. Nagle and Kathryn Grace. "Accuracy of supervised classification of cropland in sub-Saharan Africa." Fall Meeting of the American Geophysical Union. San Francisco, California. 9–13 December.

Nagle, Nicholas N. "How Spatial are Public Use Microdata? Experiments in combining microdata and small area data." Minnesota Population Center. Minneapolis, MN. October 28

Kathryn Grace, and Nicholas N. Nagle. "Using high resolution remotely sensed data to re-examine the relationship between agriculture and fertility in a pre-transitional setting." Agricultural and Applied Economics Annual Meeting. Washington, D.C. 4–6 August.

Jesse Piburn\*, Nicholas N. Nagle and Ronald Kalafsky. "Spatial econometric origin-destination modeling of U.S.–Canadian trade flow." 7<sup>th</sup> Annual Meeting of the Spatial Econometric Association. Washington, DC. 12 June.

Kathryn Grace and Nicholas N. Nagle. "Using high resolution remotely sensed data to re-examine the relationship between agriculture and fertility in a pre-transitional setting." Vienna Institute for Demography. Vienna, Austria. May.

Emily J. Smith\*, Zack Almquist, Adam Boessen, Carter Butts, John Hipps and Nicholas N. Nagle. "Social cohesion across demographics and space." Annual Meeting for the International Network for Social Network Analysis. Hamburg, Germany. 22 May.

John R. Hipp, Emily J. Smith, Carter T. Butts and Nicholas N. Nagle. "Understanding the job lead ties of Los Angeles residents." Annual Meeting of the American Sociological Association. August.

Amy Griffin, Nicholas Nagle and Seth Spielman. "How do planners use maps and consider uncertainty in mapped data in their work?" Annual Meeting of the Association of American Geographers. Los Angeles, California. 12 April.

Kathryn Grace and Nicholas N. Nagle. "Using high resolution remotely sensed data to re-examine the relationship between agriculture and fertility in a pre-transitional setting." Annual Meeting of the Population Association of America. New Orleans, Louisiana. 11–13 April.

Nicholas N. Nagle. "American community survey: Under the hood." Panelist. Annual Meeting of the Association of American Geographers. Los Angeles, California. 10 April.

Nicholas N. Nagle and Lisa Lindley. "Spatio-temporal analysis of pediatric access to hospice care." Annual Meeting of the Association of American Geographers. Los Angeles, California. 12 April.

Stefan Leyk, Matt Ruther, Galen Maclaurin, Barbara Buttenfield and Nicholas Nagle. "Validating methods of demographic small area estimation using historical census enumerations." Annual Meeting of the Association of American Geographers. Los Angeles, California. 9 April.

Kathryn Grace and Nicholas N. Nagle. "Using high resolution remotely sensed data to re-examine the relationship between agriculture and fertility in a pre-transitioning setting." Annual Meeting of the Population Association of America. New Orleans, Louisiana. April 11–13.

Matt Ruther, Galen Maclauren, Stefan Leyk, Barbara Buttenfield, and Nicholas N. Nagle. "A first validation of demographic small area estimates." Annual Meeting of the Population Association of America. New Orleans, Louisiana. April 11–13.

## **2012**

Adam Boessen\*, John R. Hipp, Carter T. Butts, Nicholas N. Nagle, Ryan Acton, Christopher Marcum and Zack Almquist. "Neighborhoods and Space: Situating Residents' Networks." Annual Meeting of the American Society of Criminology. Chicago, Illinois. November.

Nicholas N. Nagle. *Invited*. "Modeling sparse demographic data with random effects: Studies in migration modeling and small area estimation. Annual Meeting of the Population Association of America. San Francisco, California. May 3.

John R. Hipp, Carter T. Butts, Ryan M. Acton, Nicholas N. Nagle, Christopher S. Marcum and Zack W. Almquist. "Spatial networks and the perception of neighborhood." Annual Meeting of the International Sunbelt Social Network Meeting. Redondo Beach, California. March.

Adam Boessen\*, John R. Hipp, Carter T. Butts, Ryan Acton, Nicholas N. Christopher Marcum and Zach Almquist. "If there's a crime in your neighborhood, Who You Gonna Call?" Annual Meeting of the International Sunbelt Social Network Meeting. Redondo Beach, California. March.

Nicholas N. Nagle, Barbara Buttenfield, Stefan Leyk. "Accounting for uncertainty in small area estimation with random effects." Annual Meeting of the American Geographers, New York City, New York. February.

## **2011**

Nicholas N. Nagle. *Invited* Participant at "Future Directions in Spatial Demography," Specialist

Meeting, Center for Spatial Studies, University of California, December 12–13.

John R. Hipp, Adam Boessen, Carter T. Butts, Nicholas Nagle, Ryan Acton, Christopher Marcum and Zack Almquist. "If there's a crime in your neighborhood, who you gonna call?" Annual Meeting of the American Society of Criminology. Washington, D.C. November.

John R. Hipp, Carter T. Butts, Nicholas N. Nagle, Ryan Acton, Christopher Marcum and Zack Almquist. "Homophily, propinquity, and their consequences for the structure of neighborhood networks and crime: Simulating networks." Annual Meeting of the American Society of Criminology. November.

John R. Hipp, Ryan M. Acton, Nicholas N. Nagle, and Adam Michael Boessen. "Population distribution, neighborhood networks and neighborhood crime: A simulation study." Annual Meeting of the American Sociological Association, August.

Nicholas N. Nagle. "Imputing spatial location for public use microdata." Minnesota Population Center, August.

Nicholas N. Nagle, Barbara Buttenfield, and Stefan Leyk. "Constructing small area estimates with uncertain census data," Annual Meeting of the Association of American Geographers. Seattle, Washington. 12 April.

Stefan Leyk, Stefan, Barbara P. Buttenfield, and Nicholas N. Nagle. "Choosing related variables in dasymetric modeling to refine microdata allocations." Meeting of the Association of American Geographers. Seattle, Washington. 12 April.

## **2010**

Nicholas N. Nagle, Stuart H. Sweeney, and Charlynn Burd. "Age-specific migration profiles with spatial variation." Annual Meeting of the North American Regional Science Council, Denver, Colorado, November.

Nicholas N. Nagle, Stefan Leyk, and Barbara Buttenfield. "Integrating census microdata with census summary files." International Cartographic Association, Symposium of the Census Cartography Working Group. Orlando, Florida. 19 November.

Nicholas N. Nagle, Bruce A. Ralston, and Barbara Buttenfield. "Interactively mapping geographic time series with uncertainty: An example from the small area income and poverty estimates program." International Cartographic Association, Symposium of the Census Cartography Working Group. Orlando, Florida. 19 November.

Nicholas N. Nagle. "Geostatistics, GWR, GAM and company: A review of regression models in geography." Annual Meeting of the Association of American Geographers. Washington, D.C. 18 April.

John Sakulich\*, Justin L. Hart, Saskia L. van de Gevel, Nicholas N. Nagle, and Henri D. Grissino-Mayer. "Spatial analysis of the climate response of *Tsuga canadensis* across its geographic range." Annual Meeting of the Association of American Geographers. Washington, D.C. 15 April.

Nicholas N. Nagle, Nicholas N., Barbara Buttenfield, and Stefan Leyk. "Estimation spatially-explicit microdata by using data from small area statistics and public-use microdata." Annual Meeting of the Western Regional Science Association. Sedona, Arizona. 21–24 February.

John R. Hipp, Carter T. Butts, Nicholas N. Nagle, Adam Boessen, and Ryan Acton. "Neighborhood networks and neighborhood crime: A simulation study." SunBelt XXX, International Network for Social Network Analysis. Riva del Garda, Italy. 2 July.

Phaedon C. Kyriakidis and Nicholas N. Nagle. "Geostatistical regression for areal data." Spatial Accuracy 2010. Liecester, UK. 20–23 July.

Stefan Leyk, Stefan, Barbara P. Buttenfield, and Nicholas N. Nagle. "Uncertainty in small area estimates at multiple resolutions." Spatial Accuracy 2010. Liecester, UK. 20–23 July.

## **2009**

Nicholas N. Nagle, Barbara Buttenfield and Stefan Leyk. "Simulating spatially explicit populations: Combining public microdata and summary files." Invited Seminar at Oak Ridge National Laboratory, Geographic Information Science and Technology. Oak Ridge, Tennessee. 13 November.

## **2008**

Nicholas N. Nagle. "Geostatistical smoothing of areal data: Using factorial kriging to plot employment concentration." Annual Meeting of the North American Regional Science Association, New York City, New York, 19–22 November.

Nicholas N. Nagle. "Spectral analysis for irregularly aggregated, univariate spatial processes." Annual Meeting of the Western Regional Science Association, Waikaloa, Hawaii, 17–20 February.

Stuart H. Sweeney and Nicholas Nagle. "Intraurban industrial location under institutional and accessibility constraints: An empirical approach." Annual Meeting of the Western Regional Science Association, Waikaloa, Hawaii, 17–20 February.

## **2007**

Nicholas N. Nagle, Nicholas. "Bootstrapping the mean of aggregated data." North American Regional Science Association, Savannah, Georgia, 7–11 November.

Nicholas N. Nagle. "Nonparametric covariance estimation." Spatial Econometrics Association, Cambridge, UK, 11–14 July.

Nicholas N. Nagle. "Spectral analysis for areal data." Annual Meeting of the Association of American Geographers, San Francisco, 19 April.

## **2006**

Nicholas N. Nagle. "The change of support problem and the regression analysis of areally aggregated data." Annual Meeting of the Association of American Geographers, Chicago, 7–11 March.

Nicholas N. Nagle. "A GMM approach for combining micro and macro data." Annual Meeting of the Western Regional Science Association, Santa Fe, New Mexico. 22–25 February.

## **2005**

Nicholas N. Nagle. "A nonparametric model of spatial correlation." Annual Meeting of the Western Regional Science Association, Maui, Hawaii. 25–28 February.

### **Organized Sessions at Professional Conferences**

Chair. Measurement in Population and Environment. Annual Meeting of the Population Association of America. San Diego, CA. 30 April, 2015.

Discussant. Methods and Measurement in Population, Development and Environment Research. Annual Meeting of the Population Association of America. San Diego, CA. 1 May, 2015.

Chair, Organized Session: Spatial Analysis for Historical Census Demography. Annual Meeting of the Association of American Geographers. Los Angeles, California. April 2013.

Panelist: American Community Survey: Under the Hood. Annual Meeting of the Association of American Geographers. Los Angeles, California. April 2013.

Chair, Organized Session: Geographic Frontiers in the Federal Statistical System. Annual Meeting of the Association of American Geographers. New York City, New York. February 24-28, 2012.

Chair, Organized Session: Small Area Estimation Methods, Uncertainty, and Applications 1. Annual Meeting of the Association of American Geographers. New York City, New York. February 24-28, 2012.

Chair, Organized Session: Small Area Estimation Methods, Uncertainty, and Applications 2. Annual Meeting of the Association of American Geographers. New York City, New York. February 24-28, 2012.

Chair, Organized Session: Interpolation and Uncertainty in Small Area Estimates 1. Annual Meeting of the Association of American Geographers. Seattle, Washington. April 12-16, 2011

Chair, Organized Session: Interpolation and Uncertainty in Small Area Estimates 1. Annual Meeting of the Association of American Geographers. Seattle, Washington. April 12-16, 2011

### **Awards and Honors**

2013 Outstanding Teacher Award. Department of Geography, The University of Tennessee.

2010 Spatial Accuracy 2010: Best Conference Paper: Phaedon C. Kyriakidis and Nicholas N. Nagle. "Geostatistical regression for areal data."

2004 Benjamin Stevens Graduate Student Fellowship in Regional Science. (\$18,000)

### **Courses Taught**

#### **University of Tennessee, Department of Geography (2009–present)**

611 Seminar in GIS: Spatial Data Fusion and Classification  
515 Quantitative Methods in Geography  
509 Special Topics in Geography: Spatial Demography  
441 Geography of US Cities  
415 Introduction to Quantitative Methods

#### **University of Colorado at Boulder, Department of Geography (2005–2009)**

1992 Introduction to Human Geographies  
3023 Statistics for Earth Sciences  
3612 Geography of American Cities  
3662 Economic Geography  
4023/5023 Quantitative Methods in Geography  
4622 City Life

### **Continuing Education Activities**

“Teaching in a Nutshell” Workshop by UC Faculty Teaching Excellence Program, October, 2008 (6 hours).

“Teaching the First Day of Class” Workshop by UC Faculty Teaching Excellence Program. 20 August 2008 (2 hours).

### **Graduate Advisors**

Stuart Sweeney and Phaedon Kyriakidis; University of California, Santa Barbara

### **Departmental Service:**

Search Committee Chair (Two GIScience positions) (2015-2016)  
Undergraduate Curriculum Committee (2013–2014)  
Curriculum Committee (2014-2015)  
Web Committee (2013–2014)  
Graduate Program Committee (2009–2010; 2011–2012; 2014-2015; 2015-2016);  
Graduate Student Application Review Committee (2010–2011; 2013–2014)  
Graduate Examinations Committee (2014-2015; 2015-2016)  
Search Committee (Climatology) (2012–2013)  
Search Committee (Transportation Geography) (2010–2011)

### **University Service**

College of Arts & Sciences Award Committee; 2014-2015

### **Professional Service**

2015 National Academy of Sciences Standing Committee on Reengineering Census Operations  
2016 Panel Member, National Science Foundation, Geography and Spatial Sciences

- 2015 Panel Member, National Science Foundation, Geography and Spatial Sciences
- 2014 National Science Foundation, Methods and Measurement. External Reviewer of one proposal.
- 2014 Associate Editor of Population Research and Policy Review.
- 2014 Review Board Member. Atlanta Census Research Data Center.
- 2013 Associate Editor of Population Research and Policy Review.
- 2013 National Science Foundation, Methods and Measurement. External Reviewer of one proposal.
- 2013 Invited Lecture to Cornell University class “Economics and Social Data” (Info 7470). 15 April, 2013. Topic: “Spatial Data and Analysis.” This is a distance learning course offered to approximately 30 students from 8 campuses across the nation, as well as Census Bureau Staff.
- 2013 Surveys and Censuses. Seminar given at ORNL Geographic Information Science and Technology Group, Brown Bag Lunch Series. 15, February.
- 2012 Associate Editor of Population Research and Policy Review.

### **Outreach Service**

- 2013 Invited Speaker at Blue Cross Blue Shield of Tennessee, Hispanic Heritage Program. “Tennessee’s Latino Population.” 3 October, 2013.
- 2013 Keynote Speaker and Discussant at La Paz Chattanooga Latino Awareness Series. 17 April, 2013.
- 2013 Served on Ad-Hoc Advisory Committee for Population Forecasting to Greater Chattanooga MPO, July 2012
- 2011 Invited talk on “Immigration and Aging in Tennessee and the US” to the Downtown Knoxville Rotary Club, June, 2011.

### **Student Committees**

#### **PhD Student Committees Directed – completed**

Amy Rose, Geography, Ph.D. (Chair) “Data Fusion Methods for Improved Demographic Resolution of Population Distribution Datasets.” 2015

#### **PhD Student Committees Directed – In Progress**

Kyle Landolt (to begin in Fall, 2016)

#### **M.S. Student Committees Directed – In Progress**

Nathan Trombley, M.S. “Remittance behavior among migrants in the United States.”

#### **M.S. Student Committees Directed – Completed**

Sarah Lewis-Gonzales, M.S. “Cropped Area Land Cover detection in Sub-Saharan Africa.” 2015

Joseph, Roberts, M.S. “An Analysis of Historical Urban Landscapes Using Fire Insurance Maps and Early Aerial Photography.” 2015

Ephraim Love, M.S. “MODIS Time-Series Analysis of Post-Settlement Changes in Land User and Land Cover due to Adaptation.” 2015

### **Service on PhD Student Committees – In Progress**

Evah Odoi. “Spatial and Temporal Analysis of Salmonella in Tennessee.”

Jeremy Auerbach. “Micro-level modeling and simulation of migration in the United States.”

Donghee Koh. “A study of Korean immigrants to the Chicago”

Lauren Stachowiak, Geography, Ph.D. Applied GIS and Fire Behavior in a Pine Rockland Ecosystem, Big Pine Key, Florida, USA.

Richard Cartwright, Earth and Planetary Sciences, Ph.D. Morphological processes in the Saturnian System.

Huairan Ye, Geography, M.S. “Distribution of Primary Care Physicians in the U.S.”

Kevin Krivacsy, Geography, Ph.D. “Understanding the Spatial and Temporal Dynamics of House Prices: Essays in Household Valuations and Stability.”

John Dickey, Political Science, Ph.D. Title TBD.

Eric Carr, Geography, Ph.D. TBD.

### **Service on Ph.D. Student Committees – Completed**

Ingrid Luffman, Geography, Ph.D. “Geographic and Socioeconomic Risk Factors for Sporadic Cryptosporidiosis and E. coli infection in East Tennessee.” 2013.

Sarah Ellwood, Sociology, Ph.D. “Mobility and Isolation: Latino Immigrant Adjustment in Atlanta, Georgia.” 2013.

Charlynn Burd, Geography, Ph.D. “Culling the Creative Class: Regional Economic Development, Migration and Urban Residential Preference.” 2012.

Bruno Wichmann, Economics, Ph.D., “Valuation of Public Goods with Network Effects.” 2012.

Melanie Cozad, Economics, Ph.D. “A Consideration of the Potential Side Effects of Health Insurance.” 2012.

Brian Jones, Geography, University of Colorado. Ph.D. “Small Scale Population Forecasting.” 2011.

Kara Kockelman, Economics, Ph.D. “Essays on State Lottery Participation and Public Goods.” 2011.

John Sakulich, Geography, Ph.D. “Climate induced range dynamics in eastern U.S. forests.” 2010.

### **Service on MS/MA Student Committees – In Progress**

Vincent Brown, M.S. “Changes in Tornado Activity in Tennessee”

Scott Markley, M.S. TBD

Kyle Landolt, M.S. “Reconstruction of Historic Carbon Flux”

Anne Meltzer. M.S. "Redefining African Regions: Agricultural Trade and Institutions."

**Service on MS/MA Student Committees - Completed**

Yicong (Joe) Zhong, Geography, M.S. "Spatiotemporal analysis of taxi availability and rider's demand: a case study of Suzhou, China using a location-based approach."

Jessica Moehl, Geography, M.S. "Comparing models of demographic sub populations." 2014.

Jason Kaufman, Geography, M.S. "An Analysis of the Patterns of Crime and Socioeconomic Status Visualized Through a Self-Organized Map." 2014

Maria Martinez, Geography, M.S. "Evaluating the Uncertainty in Identifying Urban Fringe Zones." 2013.

Jesse Piburn, Geography, M.S. "The Effect of Distance in U.S. - Canadian Trade." 2013.

Melanie Barron, M.S. "Truth and Reconciliation in Boston." 2013.

Peggy Jackson, Geography, M.S. (qualifying examiner only). 2011.