EDITORIAL

**Editorial Welcome:
Why *Spatial Demography*?**

Frank M. Howell Jeremy R. Porter
Mississippi State University City University of New York
Editors-in-Chief

There were two graduate students back in 1980 who were experimenting with computer-to-computer communication. It was ahead of its time in that what later came to be called “instant messaging” was a feature that the two implemented between the City University of New York (CUNY) and Yale University. Users of this “free” system grew, not because there was some pent-up demand for an unknown form of communication but “because it was there”. This network grew in terms of nodes where other institutions were allowed to connect through dedicated telephone lines and modems. A decade later, this emerging computer network had 500 organizations with 3,000 nodes. The current name for it was BITNET, an acronym for “*Because It's Time Net*” (see wikipedia entry on BitNet).

In many ways, that is our motivation for launching another specialty journal. Voss has argued (2004) that demography as an academic enterprise has always had spatial roots. Indeed, the origins of the early Chicago School of social ecology which used social demography to identify neighborhoods was invoked through the use of maps (Porter and Howell 2012). It was their reading of the sociologist of rural communities, Charles J. Galpin, at the University of Wisconsin, which gave Park and Burgess the exemplary template for spatializing localities in social dimensions.

Demography was inhibited from continuing this

spatial turn due to several factors.

One, the computing power needed for depicting data in map form was nonexistent or very expensive. It is ironic that the Hollerith Card largely led to the first mainframe computer for use in the U.S. Decennial Census! (see Bureau of the Census) Nonetheless, the massive amount of data from the Census and other standard demographic sources caused even large-scale data archives such as ICPSR challenges to acquire, maintain, and distribute. That computing power, storage capacity, and Internet accessibility inhibition has largely been resolved today.

Two, the development of geographic information systems through which to visualize demographic data in spatial dimensions took years to develop, largely due to the computational power needed and the relative lack of high resolution graphic displays. With the widespread availability of high quality commercial and free and open-source GIS software, that barrier has been significantly reduced as well.

Three, it is well-known in scientific data visualization circles that color is a must for the full exposition of data exploration. John Tukey's methods gave rise to a new generation of statistical computing artisans who have created many data viz tools. While color

graphics on computer screens are commonplace, academic journals have lagged far, far behind. Without low-cost full color illustrations in academic journals, scholars have had to “dumb down” their results to gray-scale graphics or face expensive color-plate charges. Using online media for the publication process solves this roadblock in large measure. Even so, there are often “author-pay” page charges for these submissions. We have committed to not charge either submission fees or page charges to submitting authors. This reduces the color graphics barrier to scholars whether they have grant funding or not or are at large institutions or small.

Four, time is an intimate partner to space. The most common form of temporal representation has been the time-series graph or some variant of it. However, the spatial visualization at each time point tends to be under-represented at minimum. One solution is the use of motion-video to represent simultaneous representation of space and time through a series of maps with the time interval reflecting each frame of the color movie. Print journals are statically-bound in terms of these types of representations. The movies can be posted on a separate website for independent viewing by a reader but this separation reduces the fluidity of reading and comprehending the scientific results in a given paper. Using a multi-media journal format through an Internet-based website is now a reality. This is one solution to facilitate spatio-temporal work such as that in spatial demography.

Five, learning new methods and using them to develop or test new theory can be challenging for a scientific specialty using conventional in-person conferences and print journals or newsletters as the media for sharing knowledge. Adapting multi-media Internet-based technologies is one strategy through which to “spread the word” of new ideas and methods. Online forums have been available to scholars since before the Internet was available (see Howell and Garson 1985; Howell et al. 1986). However, demographers have been slow to adopt many of these technologies with some exceptions. The focus on spatial demography can be one of those in which rapid success can be had without cost to the individual scholar.

Six, the development of spatial statistics has only

been recently moved forward to a point where the blending of spatial technologies such as remote sensing, GIS, spatial statistics, scientific data visualization, small-area demographic data, and large-scale databases is a reality using desktop PCs, online servers, and fast Internet connections. This progress has been fostered significantly by the work at CSISS and the GeoDa Center, among others, which has coalesced significant resources and open software to the scientific community.

We are sure that there are other issues involving demography and the use of spatial approaches that continue to serve as inhibitors to progress in the specialty. However, it is relevant to ask why launch an online multi-media journal focusing on *Spatial Demography*?

Our answer is fairly simple: *because it is time to do so*. We are very pleased to have our editorial group come on board in agreement. And, we hope that others doing work in spatial demography will join our online community to discuss substantive issues as well as submit high quality work for peer-reviewed publication.

References

- Bureau of the Census. https://www.census.gov/history/www/innovations/technology/the_hollerith_tabulator.html.
- BITNET. <http://en.wikipedia.org/wiki/BITNET>.
- Frank M. Howell and G. David Garson. 1985. “Professional Networking in the Social Sciences: Creating SocNet and PoliNet.” *Social Science Computer Review* 3 (2): 85-92.
- Howell, Frank M., Michael L. Vasu and Ellen S. Vasu. 1986. “Telecommunications Systems and Evaluation Research: Using SocNet and PoliNet as Examples.” *Evaluation Review* 10 (5): 661-681.
- Porter, Jeremy R. and Frank M. Howell. 2012. *Geographical Sociology: Theoretical Foundations and Methodological Applications in the Sociology of Location*. New York: Springer.
- Voss, P. R. (2004). Demography as a spatial social science. Paper presented at the Annual Meeting of the Southern Demographic Association.