Future research in spatial demography will require new and better data which, in turn, will challenge data providers and analysts to balance research data needs with adequate protections for human subjects.

New data for spatial demography will ideally include in-depth local studies, such as the Los Angeles Family and Neighborhood Survey (L.A.FANS) which I co-direct with my colleague Anne R. Pebley (UCLA), together with nationally-representative data, such as the Panel Study of Income Dynamics (PSID) on which I serve as the co-Principal Investigator along with several colleagues at the University of Michigan.

The in-depth local studies have the capacity to provide rich and detailed information on specific study sites. The concentration of study samples in a single area—such as Los Angeles County in the case of L.A.FANS or Chicago in the case of PHDCN, the Project on Human Development in Chicago Neighborhoods—offers the opportunity to collect measures that are otherwise extremely expensive or entirely impractical to obtain. For instance, L.A.FANS and PHDCN have both conducted systematic observations of the physical and social environments of study neighborhoods, which would be essentially impossible to do for a national study such as PSID. These two studies are also designed to support the construction of sample-based estimates of neighborhood social indicators, such as measures of collective efficacy, that have proven highly valuable for understanding the contextual social processes through which neighborhood structural characteristics, such as concentrated disadvantage, operate to affect outcomes for children, adults, and families in domains such as health, development and well-being. Finally, L.A.FANS is one of the few population-representative surveys that has collected detailed information on the spatial locations of activities (such as where people go to shop, worship, work, exercise, etc.). Analysis of spatial activity space is important for a better understanding of individuals’ contextual exposures and how these exposures, in turn, affect a variety of outcomes of interest.

Among the shortcomings of existing in-depth local studies is that there are few of them and those that do exist tend to focus on a relatively small number of areas (including Chicago, Los Angeles, and New York City); they are often not collected with frequently enough to support panel analysis; and it can be difficult to place their results within the national context.

The last shortcoming can be addressed by studies such as PSID, which trade-off the detailed geographic information available in local studies with the advantage of having nationally-representative data collected at frequent periodicity (two- or five-year intervals, depending on specific study component). A study such as PSID is also better-able to study geographic moves away from study areas—which is a challenge for local area studies—and to collect a
complementary set of measures on topics such as income, wealth, and consumption expenditures, family dynamics, outcomes over the entire life-cycle, intergenerational effects, and time use. This last topic—time use for children and adults—is one particular area of innovation for PSID which is ripe for integration with local-area studies or with the spatial location of activities. In particular, knowing the amount of time and the specific time of day and day of the week that individuals spend in specific locations conducting particular activities is likely to be incredibly valuable for understanding spatial patterns of time use, contextual exposures, and a variety of other topics. A final topic that national data sets such as PSID often have an opportunity to lead on is linkages with administrative records. Matching respondent records from surveys with detailed administrative data from schools, employers, health care providers, the criminal justice system, and other sources provides a new and unique set of avenues for future research.

There are, of course, a number of challenges associated with collecting new data for the next generation of research on spatial demography. First, the costs of collecting these data are high, and the difficulty of securing adequate financial support in a time of stagnant or shrinking government research budgets is an enormous challenge. This situation makes it extremely important that the data that are collected are used widely and effectively—which is facilitated, in particular, by providing the broadest possible data access within the constraint of protecting respondents’ confidentiality. This is the second challenge: how to provide broad and democratic access to restricted data files that include the necessary geographic specificity to conduct detailed and in-depth spatial demographic analysis. Many of the necessary variables simply cannot be included in public use data files because of the possibility of deductive disclosure of respondents’ identities. Yet the access to restricted data is vastly easier for established researchers at major institutions who have secured their own grant funding. Among the groups at a disadvantage are scholars at lower-tier institutions that do not have adequate funding for the necessary secure computing infrastructure, undergraduate and graduate students, and junior researchers and faculty. Efforts to help overcome access barriers through the use of new technology—while continuing to protect respondents’ confidentiality—is an important priority. A final challenge, which is really an important opportunity, is for demographers to join forces with scientists in other disciplines to enhance the richness and depth of contextual and spatially-referenced data collected as part of, or in conjunction with, these surveys. The connection with geographers is an obvious one, but demographers should also be collaborating with environmental scientists, epidemiologists, education researchers, and others to establish and develop collaborative links.