

## RESEARCH YOU CAN USE

### Mixing Methods for Clearer Results

I've written two columns in recent years on the relative strengths of quantitative versus qualitative research. In October 2007, I took the side of qualitative research when the topic or data are inherently subjective. In January 2009, using the example of the transfer of development rights, I took the opposite side, arguing for quantitative research when the variables at play are easily measured.

This time, I'm stumping for "mixed methods research"—collecting and analyzing both quantitative and qualitative data as part of the same study or successive studies. Mixed methods research, which dates back to the 1970s, has become increasingly popular since the *SAGE Handbook of Mixed Methods in Social & Behavioral Research* came out in 2003, followed in 2007 by the first issue of the quarterly *Journal of Mixed Methods Research*. According to the handbook's second edition, the number of doctoral dissertations using mixed methods zoomed from 23 in 1997 to 718 a decade later.

The argument for mixed methods goes like this. First, quantitative and qualitative studies answer different, but equally important, questions. Qualitative research deals with the why and how, while quantitative research mostly responds to questions of how much. Second, qualitative research, as I wrote in my 2007 column, is often the best way to determine causality between variables, not just correlation. Third, quantitative and qualitative studies can provide independent validation of the same phenomenon. Triangulation, or the use of multiple methods to double-check results, was first advocated by Todd Jick of Cornell University, one of the pioneers of mixed methods research. In a 1978 article he wrote, "The convergence or agreement between two methods . . . enhances our belief that the results are valid and not a methodological artifact."

Adam Millard-Ball, an assistant professor of environmental studies at the University of California, Santa Cruz, has

just completed a mixed methods study of climate action planning by California cities. The quantitative portion of the study, published late last year in the *Journal of Urban Economics*, finds that cities with climate action plans have more green buildings, spend more on pedestrian and bicycle infrastructure, and implement more programs to divert waste from methane-generating landfills. The same study concludes that these actions result not from the climate plans themselves, but rather from the pressure of citizen groups. In short, the correlation between climate action planning and emission-reduction measures does not mean that the former

tive study validates the findings of the earlier quantitative study. Second, the quantitative study provides a clever method of comparison. By selecting cases for the qualitative study that outperform expectations in the quantitative study, Millard-Ball can do cross-case comparisons of two cities that perform above expectations on environmental indicators (only one with a climate plan) and two cities with climate plans (only one performing above expectations).

What does this tell the researcher? Consider mixed study designs, which to date are rare in planning circles. And what does this tell the practitioner? Aim high when you develop climate action plans

### Three Ways of Mixing Quantitative and Qualitative Data



Merge the data



Connect the data



Embed the data

From *Designing and Conducting Mixed Methods Research* (Sage Publications, 2007)

causes the latter, revealing a classic problem with quantitative studies.

To get at the thorny issue of causation, Millard-Ball has conducted a second study, upcoming in the spring issue of the *Journal of Planning Education and Research*. The second study is qualitative. Based on case studies of municipal climate action planning, he finds little evidence of causal impacts. Instead, cities use climate plans to codify policies that were likely to happen anyway. This result is not too surprising, since climate action planning is strictly voluntary. He acknowledges that other urban plans—mandated comprehensive plans, for example—may in fact have causal impacts.

The connection between Millard-Ball's quantitative and qualitative studies is twofold. First, and most obviously, the qualita-

because you want to do more than codify the status quo. ■

Reid Ewing

Ewing is a professor of city and metropolitan planning at the University of Utah and an associate editor of *JAPA*.

## LETTERS

### Sticky issues

Ruth Knack's article, "Ethics in the Time of Twitter" (December), was both timely and on target. It highlights many of the quandaries facing planners on a daily basis, especially those without an easy answer.

I was particularly pleased to see the emphasis on the hits taken by sound ethi-