**Week 2: Challenges and Benefits of Representing Neighborhoods Quantitatively**

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Representing neighborhoods quantitatively has its limitations due to the lack of its attention on “quality.” In other words, quantitative research can only produce findings arrived at by statistical procedures and other means of quantification. While this approach is useful to answer a clear and quantifiable question (i.e., How different are the vacancy rates for Illinois and California in 2020? Which neighborhood has the highest poverty rate in Chicago?), it is difficult to provide insight into the open-ended research questions (i.e., What is the experience of the residents who live in a high-vacancy neighborhood? What are the possible neighborhood issues that arise because of urban vacancy issues?). This is because quantitative approaches tend to test the validity of the hypothesis based on theory and previous studies. Thus, they require a deductive approach and standardized data collection and analysis protocols, which may hinder researchers from gaining in-depth, detailed information of the people, situations, contexts, and cases studied. It can also negatively impact the researchers in ways that we can simplify the cases without understanding the complicated nature of the issues surrounding the neighborhood.

Nevertheless, there are many benefits of quantitative research approaches and methods associated with neighborhood-level analysis. The major strength of quantitative approaches is in their usefulness in generating as close to an accurate picture of the neighborhood as possible at the time based on large representative samples and the logic of generalization. By comparing datasets in different neighborhoods and using appropriate statistical tools, researchers can identify a general pattern of the current situations and the interrelated causes and effects (e.g., a statistically significant relationship between poverty rates and vacancy rates). Also, quantitative data can be used in graphical forms, such as tables and charts, which would ensure data visualization and an easy understanding of the neighborhood’s characteristics and stories.

Despite some limitations noted earlier, quantitative approaches are a less time-consuming and more cost-effective way to study and understand the narrative of the neighborhood, compared to other approaches. Acknowledging that representing the neighborhood quantitively is not perfect, I would be interested in using multiple sources for understanding the neighborhoods I study, including interviews, focus groups, field notes, and gray literature analysis. Such multiple sources of converging evidence will support an explanation and make the story more interesting and complete.