

SOCIOLOGY COLLOQUIUM SERIES PRESENTS:

# Relational Segregation in U.S. Metro Areas:

## Using Facebook and Safegraph Data to Assess Racial Segregation

**SPEAKER:** Yongjun Zhang, PhD (SUNY Stony Brook)

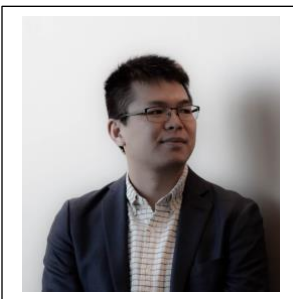
**DATE:** Oct 28, 2021 (Thu) **TIME:** 12:30-1:30 p.m.

**ZOOM LINK:** <https://buffalo.zoom.us/j/95325542584>

Meeting ID: 953 2554 2584

### Abstract

Sociologists and demographers have devoted decades' efforts to measure residential segregation and have consistently shown the persistence of racial segregation and its negative impact on minority communities in the United States. These segregation measures tend to be aspatial and static. Even though some of these measures account for spatial proximity between neighborhoods, they often ignore social connectedness. This talk will introduce a new approach to capture residential racial segregation. We reconceptualize segregation as a relative lack of relations such as ties, interactions, and transactions among social categories in a social system. We then use large-scale friendship network and daily human mobility data from Facebook and Safegraph to demonstrate the multiplex segregation by online and offline social relations in the U.S. metro areas. Unlike existing studies showing that residential segregation decays as the geographic units expand, we find some nuances that mobility-based segregation decreases when the ego-centric spatial network expands but friendship-based segregation first grows exponentially and then plateaus. Friendship-based segregation is more severe than mobility-based segregation in U.S. metro areas and friendship-based segregation is a strong predictor of mobility-based segregation. We also find that relational segregation is more severe when a U.S. metro has a larger white, poor, and unemployed population and a high level of Black-White residential segregation. There is also some evidence showing the regional difference. Metro areas in the West region have a significantly low level of relational segregation.



Yongjun Zhang is Assistant Professor of Sociology and Institute for Advanced Computational Science at Stony Brook University. He received his PhD in 2020 from the University of Arizona. Combining statistical, network, and computational methods with large-scale datasets, Zhang studies social, political, and organizational behavior. His past work focuses on the interplay between social movements and social or political changes in the U.S. and the globe. These work has been published in *Journal of Marriage and Family*, *Demography*, *Poetics*, *International Journal of Comparative Sociology*, *American Journal of Sociology*, and *PLoS One*. He has won the 2020 James Coleman Award from Sociology of Education Section at American Sociological Association and the 2021 SIM Best Paper Submission at Academy of Management.

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430 Park Hall

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