

Transit Service Area Segregation

According to Carole a good thesis is:

- ❑ A finished thesis
 - ❑ The goal is for you to finish your thesis, which may mean that one should drop a line of inquiry, or to stop working on part of your project and move on, even if it isn't perfect yet
- ❑ Ideally your thesis marks the beginning of a journey that will span the rest of your career, **but this should not be the primary goal of your thesis**
- ❑ Thesis should be narrow...enough
 - ❑ Must actually answer the question while appealing to broader audience and form a relationship with existing literature
- ❑ Your research should be presented in a clear way that is reproducible

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What and why:

Activity space segregation research is an emerging field. Currently, spatial segregation research focuses on residential patterning of social groups across urban neighborhoods (Massey and Denton, 1988; Tammaru et al., 2015)

- ❑ This has provided valuable knowledge on the social fabric of our cities, and how physical and social characteristics of neighborhoods affect the life outcomes of their residents
- ❑ Just as individuals are influenced by their residential neighborhoods they are also exposed to and shaped by the other socio-spatial contexts of their daily life
- ❑ Less theoretical and empirical attention has been applied to the question of how segregated individuals' everyday lives in all their activity spaces are → this aspect of segregation, segregation in transit service areas, is what I am interested in studying
- ❑ This approach proposes that segregation is (re)produced across all locations that a person visits (for both social and asocial activities), and routes and areas the person travels through and around

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(...cont.):

Currently, there are gaps in this realm research that can be filled through this analysis, contributing to a larger body of research

I believe that public transportation is more than just a provider of connectivity and instead is a holistic service that acts as a public benefit that advances social change

- ❑ Research has uncovered that government regulations enforced segregation in the mid-1900s increased violence, inequality, voter apathy, and discrimination. I am interested in exploring public transportation's role in remedying or exacerbating these trends

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Question:

Analysis addresses the question of whether block-based isolation indices at a metropolitan scale suggest less or greater isolation than those based on transit service areas

- ☐ I will examine isolation in terms of race, income, nativity, and social capital
- ☐ My geography will be ½ mile walkshed around bus lines
- ☐ This analysis will include Los Angeles and Chicago (may change)

Hypothesis:

Isolation indices will suggest less isolation in transit service areas than metropolitan areas

Why is this important?:

Truly a public good

- ☐ Public transportation is a “useful social actor” rather than just a provider of mobility (Allen H., 2008, p. 1)
- ☐ Those with greater interaction with people of a different race and class are more tolerant and more likely to care about issues that affect other people (Gibbons, 2018)

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(...cont.):

Crucial to Social Inclusion

- ❑ To build resilient and sustainable communities, communities must be easily connected to “markets, employment, health services, and education” (Allen H., 2008, p. 7)
The question of access becomes much more relevant in areas highly segregated by income and race (Manville et al., 2018)

Minimize Inequality and Poverty

- ❑ By connecting low-income individuals with economic opportunity, education, and healthcare as well as by expanding interaction among people of different races and classe (Gibbons, 2018)

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Definitions

I will refer to research that has captured segregation beyond residential neighborhoods across individuals; multiple activity locations and/or mobility broadly as activity space segregation.

Preliminary literature review has underscored two key concepts: segregation and activity space.

- ❑ Segregation is defined as spatially uneven distributions and relationships – spatial arrangements and patterning and/or spatial interactions – between people belonging to different populations (Yao et al., 2019)
- ❑ Activity spaces are defined with reference to Golledge and Stimson (1997) as geographic space that captures an individual's activity locations and mobility over a period of time

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Data Sources:

Traditional data sources have largely been most utilized when conducting research on segregation (e.g. census data).

Research on activity space segregation is relatively young compared to the longer history of residential segregation

- ❑ Research in this field has developed in tandem with the accessibility of big data, and can include big data to supplement traditional data (Wang et al., 2018)

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Social Dimension:

Most studies have taken the perspective of one social dimension

- ❑ Socioeconomic, ethnic, racial, etc
- ❑ Some studies have formed population groups by intersecting background characteristics
 - ❑ Age and language (Silm et al., 2018), and race and income level (Wang et al., 2018)

Spatial Dimension:

Activity space segregation studies vary in terms of the extent to which they are examined

- ❑ Some studies investigate: an individual's entire activity space; mobility between main anchor points; or out of home activities, out of home activities not related to employment, out of home activities during a specified day or time

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Measurement of Activity Spaces:

Activity spaces are calculated at the individual level or the aggregate level – measured by social group, spatial unit, or flows between locations.

Segregation Measurement:

Activity space segregation can be calculated for a spatial unit (place-based), a movement flow (flow-based), an individual's or group's activity space (people-based), or a mixed approach (combined measure)

- ❑ Researchers have calculated individual-level segregation indices (Schell, 2001), some use statistical regression measurements (Li and Wang, 2017), and others apply a geovisual map comparison method (Greenberg, Raanan, and Shoval, 2014).
- ❑ Researchers will often aggregate data on individual activity spaces into predefined spatial units

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Conceptual and Methodological Heterogeneity:

Heterogeneity between studies is not necessarily counterproductive yet can produce fuzziness in conceptualization

- ❑ How are segregation and socio-spatial contexts understood and represented

Understanding segregation in movement flows, which based on preliminary review has been studied the least, is equally important as it uncovers the mobility of people

- ❑ Deeper understanding of spatially uneven patterns and relationships between people enables policy-makers and planners to develop more targeted policies that facilitate integration by focusing on place, people, connections

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Research Gaps and Opportunity:

- ❑ Turn abstract concepts into measurable observations
- ❑ Ensure strong links to segregation theory
- ❑ Central perspectives when examining segregation – place, people, and movement flows
- ❑ Central questions – “how segregated are neighborhoods?”, “how segregated are individuals activity spaces?” and “how segregated are mobility flow patterns between activity locations?”
- ❑ Future research should bring people- and place-based methods together as well as flow-based perspectives (Sheller and Urry, 2019; Shen, 2019)
- ❑ My research will tackle segregation across movement flows, which reflects and reinforces mobility injustice (Cook and Butz, 2018)