1. INTRODUCTION
- Older adults’ mobility may decline with age, due to driving cessation, location, and physical and cognitive constraints (Nordbakke, 2013; Karthaus and Falkenstein, 2016).
- Low mobility is correlated with social isolation and poor health outcomes (Lucas, 2012; Dobbs, Hussey, and Phibonchokkhi, 2018).
- Age-friendly public transportation is important for older adults’ mobility and social participation (Cutkovich and Wister, 2001; Dickerson, Molnar, Bédard, Eby, and Weger, 2017).

2. LITERATURE REVIEW
- Minority, low-income, and disabled individuals face greater transport barriers and are more likely to be transit-dependent (Lubitow, Rainer, and Bassett, 2017; Turdialeva and Edling, 2018; Syed, Gerber, and Sharp, 2013).
- Growing availability of open-source data like General Transit Feed Specification (GTFS) makes it viable to measure accessibility via public transit (Boisjoly and El-Geneidy, 2016; Chia and Lee, 2020; Widener, Farber, Neutens, Rainer, and Bassett, 2017; Turdalieva and Schmidt, 2018).
- Older adult accessibility studies focus on individual-level barriers, capabilities, and perceptions (Boyajian, 2011; Nordbakke, 2013; Ryan, Wrettisland, and Schmidt, 2015) and many are based in Europe and Canada (Nordbakke, 2013; Ryan, Wrettisland, and Schmidt, 2015).

3. CASE STUDY AREA: PHILADELPHIA, PA
- Poorest major American city and minority-majority (Figure 1)
- Southeastern Pennsylvania Transportation Authority offers bus, rail, and trolley service
- Uneven dispersion of SEPTA stations and route frequency (Figure 2)
- Geographic disparities in poverty and senior center placement (Figure 3)

4. METHODS
RQ 1: How does the accessibility of senior centers via public transit vary between census tracts?
RQ 2: How do demographic factors like income and race correlate with older adults’ access to senior centers?

5. DEFINING THE ‘SENIOR CENTER’
Senior centers in Philadelphia offer a wide variety of services and programming including food, religious services, housing, and social activities. In this study, we use the Philadelphia Corporation for Aging (PCA’s) list of senior centers that they partner with.

6. PRELIMINARY FINDINGS
Figure 5: Senior Center Accessibility, Philadelphia
Figure 6: Senior Center Accessibility and Census Tract Demographics

7. IMPLICATIONS
GEOGRAPHICAL:
1. Accessibility is highest in Center City and lowest in the Northwest, Northeast, and South.
2. This is expected, as the majority of senior centers are in the Center City district.

DEMOGRAPHIC:
3. Majority Black and majority Hispanic census tracts have better access to senior centers than Philadelphia as a whole.
4. Census tracts with high shares of older adults who are in poverty, living alone, disabled, and carless have better senior center accessibility than tracts with low shares.
5. These findings are surprising because the literature suggests that these traits correlate with lower transit accessibility and more transport barriers (Lubitow, Rainer, and Bassett, 2017).
6. These trends may be indicative of successful efforts by the City of Philadelphia, Pennsylvania Department of Aging, Philadelphia Corporation for Aging, and SEPTA to make transit and senior centers accessible to older adults with differing needs and levels of mobility.

REFERENCES
- Lucas, K. (2012). Transport and social exclusion: Where are we now?