# Introduction

Asian American comprises a panoply of differing and unique intersectional identities, histories, and experiences, yet Asian Americans are essentialized as a group and broadly stereotyped as the model minority, which shapes information to college access and campus resources (Museus & Truong, 2009; Palmer & Maramba, 2015; Poon & Byrd, 2013). Scholars and researchers have frequently called for the disaggregation of Asian American data to ensure that ethnic minorities are supported within the Asian American racial category (Museus & Truong, 2009).

In the pursuit of data disaggregation, I hope to map the different experiences of Asian American ethnic groups across Philadelphia and their access to higher education. I’m particularly looking at East Asians in Central Philadelphia and Southeast Asians (broadly) in South Philly.

# Literature Review

### Asian American Geographic Differences

Liu's (2018) ethnography highlighted highlights the differences in Asian American perspectives, they built a framework that includes three parts. One part of that framework is the discourse on Xi Jinping's "Chinese Dream," which emphasizes class advancement and ethnic empowerment through market liberalization and expansion of, specifically, Chinese capital. The Chinese Dream can be applied to the Chinese immigrants' movement that moved into ethnoburbs following Japanese and Mexican Americans, which fundamentally reshaped the ethnoburb (Cheng, 2013).

Race as a geographic cultural construct shapes how students experienced being Asian American. In Chan’s (2017), study on geographic differences in being Asian American the theme of race as a social identity was broken updivided into four subthemes: (1) distancing racial identity, (2) the strategic use of racial identity, (3) shifting experiences of race and racial identity to describe the importance of students' hometowns and high schools, and (4) how they now felt about their racial context. This theme described how some students felt closer to their identity, while other students felt more distanced because they no longer were the only Asian American identifying person in their hometown.

The literature on Asian American geographic differences is not extensive, but the literature that does exist indicates that there are differences in access to locations and socialization. Patterns of immigration and discourse also shaped where Asian Americans could move to, and the environment that Asian Americans occupy also shape their own ideas perceptions of self. Geography plays an important role in shaping the Asian American experience; however, very little has been done to explicitly understand geography and its relationship to college access for Asian American populations.

## College Access Frameworks

Postsecondary institutions in the United States are critical for developing a workforce and providing individual opportunities for development. Although the need for postsecondary education is evident, the need is often mismatched by various factors (Dache et al., 2021). Perna (2006) offers a conceptual model of higher education which encompasses four layers: (1) habitus, (2) school and community context, (3) higher education context, (4) social, economic and policy context. Although this framework does consider context, it does not explicitly address the geographic context (Turley, 2009). Turley argues that college choice must be situated in the geographic context and found that high school seniors had a wide range of colleges within commuting distance, zip code had a small but significant increase in the odds of applying to college. Finally, schools that are more conveniently accessible had higher application rates.

Hillman (2016) builds upon the geographic distance of higher education institutions to argue for the existence of education deserts — places where there are no educational opportunities. These education deserts show that place shapes the decision-making process in deciding whether to attend and where to attend college. The idea of applying the term geography of opportunity is to show that there are unequal opportunities to higher education. Like food deserts, education deserts are constrained along the lines of race and class. Individual choices to go to college are shaped by their geographic context, which constrains the options of school context, community context, and their social habitus. Dache-Gerbino (2016) argues that geographic context is critically important using a Critical Geographic College Access (CGCA) framework to visually show how urban development and modernization failed black communities and that locations of colleges are not just coincidences but socially constructed around a history of residential segregation.

Although geographic analysis considers the way residents and communities can see and access higher education (Dache-Gerbino, 2016; Turley, 2009), Colleges and universities must recognize and reach out to these communities. Jaquette and Salazar (2018) found that college recruiters strategically select high schools for recruiting, typically picking high schools that are whiter and wealthier. Even when schools primarily made of students of color performed well on tests, colleges would still visit the predominately white high schools. This proposed study challenges college access from a student perspective to the responsibility of higher education institutions. College access is not just about what school students visually see and are conveniently close to, but what schools have taken the time to reach out and recruit.

# Framework

# Methods

To understand the geographic context of the data, I am pulling from five different sources of data, (1) U.S Census Bureau data (TidyCensus), (2) IPEDS University Database, (3) SafeGraph, (4) Carnegie classification, and (5) Open Transit Planner - SEPTA Metro and Bus GTFS files.

# High-level summary of Methods

During this capstone, I want to try a couple quantitative methods that I have not really been able to test.

1. K-clustering analysis – I want to use this to show how schools are clustered or not.
2. Moran’s I – use moran’s I to show that there is spatial autocorrelation that exists
3. Logistic Regression – Not sure if it’s possible, but perhaps with pairing IPEDS data with Census track data I will be able to predict likelihood of enrollment by census track.
4. Machine Learning Methods – These are methods that I’m aware of and can apply without geographic context. I have yet to attempt any of these without classroom supervision and would like a place to attempt these.
   1. LASSO
   2. Neuronet
   3. Random Forest

# Format of your final deliverable

Rather than a markdown, I am going to speak with my adviser to see how I can use this capstone towards my Ph.D. I realized that this capstone will be a good opportunity to allow me to use many of the skills that I’ve learned to explore the data.