

Evidence and Inquiry Certificate

The College of Natural Sciences Honors Center
Home of Polymathic Scholars

Public Transit in the United States

"There are many reasons to encourage Americans to use transit, yet nationally, it is a marginal mode of transportation, avoided, ignored, and often ridiculed. Understanding how our society arrived at the present state is the key to forming a smart transportation policy for the future."

Ryan Young
Natural Sciences
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● ***Describe your field of study. What are some of the questions you would like to answer, and what academic disciplines do you think will be useful in answering them?***

In my interdisciplinary field of study, I propose to study the question of how cities can increase the usage of public transit in the United States. By “public transit,” I refer to the use of high-capacity vehicles such as buses and trains to move the traveling public along fixed routes in urban and suburban areas. There are many reasons to encourage Americans to use transit, yet nationally, it is a marginal mode of transportation, avoided, ignored, and often ridiculed. Understanding how our society arrived at the present state is the key to forming a smart transportation policy for the future.

Less than five percent of American commuters use mass transit to get to work. The overwhelming majority of trips are made using personal automobiles, mostly occupied by solo drivers - a highly inefficient use of both land and resources. The car is largely responsible for the air pollution that engulfs U.S. cities and is the number one cause of accidental deaths among American teenagers. The average motorist also faces the mental stress induced by the presence of other motorists. Aggravating bumper-to-bumper traffic is an increasingly common sight across the country, and city planners are all too aware of the consequences of simply expanding roads: even more cars, and even more congestion.

Why are Americans so dependent on such a troublesome mode of transportation? The reasons are numerous and complex, but to summarize, there are two key points. First, American society has undergone a major spatial transformation over the last century. The post-WWII middle class fled to the suburbs, where transit was inefficient and automobile ownership was subsidized. Second, transit agencies have failed to adapt and innovate in the face of this new reality. All too often, service is slow, inconvenient, and confusing.

My goal is to study American public transit from a Polymathic perspective that considers the history and composition of the society it serves. Comprehensive transit planning must go beyond typical engineering studies and marketing campaigns. What factors caused Americans to embrace the automobile at the expense of transit, walking, and bicycling? Why are so many of today’s Americans simply unaware of the services that transit agencies provide? For example, surveys by Long Beach Transit suggest that many would try the bus if only they understood how to use it.

My field will draw upon the fields of Geography and Urban Studies, with potential branches into History and Government.

● ***Why are you interested in studying this topic?***

Since my youth, I have always been fascinated with mass transportation.

This manifested itself in various ways over the years. As a child, I developed a passion for airline travel and its marvelous ability to whisk hundreds of passengers to faraway destinations. Then I became enchanted by the mega-freeways of Southern California, engineering feats of high-speed mass motoring. My introduction to public transit came when I was twelve and my family used the Washington Metro system to explore the capital city.

Riding speedy electric trains that glided effortlessly from station to station was a remarkable experience. Seeing and hearing the cars accelerate away from the platform was a thrill. Here, truly, was the pinnacle of convenient and efficient transportation.

The public transit experience in my suburban hometown in California's Central Valley is considerably less impressive. The humble bus, along with its associated stigmas, is the sole available option. Growing up, my parents made it clear that the bus was for social degenerates and the transit center for felons. Unsurprisingly, I never made use of public transit until one summer when I commuted to and from the local university. To avoid begging for rides, I rode the bus home every day.

Despite my parents' misgivings, I always made it back in one piece. In fact, transit was a pleasant experience. On the bus, I could relax, do work, and socialize with the community. Most importantly, with transit, I could go whenever and wherever I wanted, without being dependent on friends and family. For me, transit meant freedom - from car payments, traffic, accidents, and stress. Yet mainstream Americans still cling to the stereotypes that my parents hold about public transit. As twenty-first century society becomes entranced with quixotic dreams of self-driving cars and Internet ridesharing, American transit systems sit underfunded and neglected.

Today's United States is an automobile-addicted society. Its culture and public makers deify the personal car as the end-all be-all solution to transportation. I perceive a completely unjustified conspiracy against public transit and non-automobile travel. Society's most disadvantaged members pay the price. My Vietnamese grandmother, whose husband lost his license, is frustrated by her inability to leave the house. My Serbian high school math teacher must retire back in Europe because the costs of owning a car in the U.S. are too high. Public transit can free great people like them. It can free all of us.

- Name two faculty with research interests in your area. Include their home departments and relevant research interests. If a research interest isn't obviously related to your topic, explain its relevance.**

Dr. Rich Heyman

- Dept of Urban Studies and Geography
- Urban geography, history of geography, public space

Dr. Ming Zhang

- Community and Regional Planning, School of Architecture
- Urban transportation planning, land use, urban form and travel patterns

- Explain how each course is relevant to this field. What do you hope to learn from each?**

Primary Courses

URB 301

Introduction to Urban Studies

This course provides an introduction to the field of urban studies and the study of urban geography. It discusses the history of cities from ancient to modern times with an emphasis on the Industrial Revolution and the twentieth century. This is contextualized through the analysis of land use patterns in cities, including a group project to analyze land use changes in downtown Austin. Key topics include industrialization, suburbanization, ghettoization, and gentrification. By taking this course, I will become conscious of the forces that shaped the city - which public transit is designed to serve - and the challenges that it continues to face today.

GRG 337

The Modern American City

This course discusses major spatial and socioeconomic changes that American cities have undergone over the past three decades and connects them with contemporary issues, such as the ongoing economic depression. Modern developments in cities are emphasized, such as suburban sprawl, urban renewal campaigns, and the proliferation of gated communities. Taking this course will allow me to examine in detail present-day cities in the United States. I will explore pressing questions concerning housing, transportation, urban economics, and public policy, all of which are key factors in the design and operation of a public transit network.

GOV 370L

Urban Politics

This course focuses on the political forces that shaped American cities, such as the shift in power from rural to urban America and the rise of the American suburb as a new center of political influence. Topics include political machines, urban reform movements, racial segregation, and the governance of modern American metropolises. By learning about urban politics, I will familiarize myself with the decision-making processes that shape transportation policy in American cities. Public transit is intensely politicized. Today's services reflect the needs and priorities of citizens, interest groups, and the various levels of regional and federal governments.

URB 352

Urban Design History/Theory/Criticism

This course discusses the history and theory of urban architecture and designing and building cities and public spaces. Topics include urban planning, new urbanism, transportation, and infrastructure, as well as various case studies from the twentieth century. Taking this course would give me a greater understanding of the essential role that public transit plays in the urban landscape.

HIS 317

Building America

This course examines the historical, cultural, and social impacts of large-scale American infrastructure projects throughout the twentieth century, such as the Brooklyn Bridge, the Interstate highway system, and the Glen Canyon Dam. Special emphasis is placed on the

conflicts between the governments, engineers, and builders that executed their construction and the environmentalists and naturalists who sought to halt it. By taking this course, I hope to investigate the relationship between infrastructure and the society it serves. Massive transit projects, such as the Bay Area Rapid Transit system in San Francisco and the Washington Metro in Washington, DC have captured the public's imagination and have continued to shape American popular culture.

RHE 328

Writing for Nonprofits

This course discusses writing for nonprofit organizations, such as charities and government agencies. Students are taught to harness language and media skills to promote a nonprofit's mission and are given the opportunity to produce a feature article for a local nonprofit agency. By taking this course, I hope to become familiar with the challenges that nonprofit transit agencies face when communicating with the general public, whether via newspaper ads about the latest service changes or social media updates announcing last-minute bus detours.