



University of Kentucky
UKnowledge

Theses and Dissertations--Geography

Geography

2014

ENTREPRENEURIAL PLANNING AND URBAN ECONOMIC DEVELOPMENT: THE CASE OF ESTABLISHING COMMUTER RAIL IN ORLANDO, FLORIDA

Timothy J. Brock

University of Kentucky, tim.brock@uky.edu

Right click to open a feedback form in a new tab to let us know how this document benefits you.

Recommended Citation

Brock, Timothy J., "ENTREPRENEURIAL PLANNING AND URBAN ECONOMIC DEVELOPMENT: THE CASE OF ESTABLISHING COMMUTER RAIL IN ORLANDO, FLORIDA" (2014). *Theses and Dissertations--Geography*. 27.

https://uknowledge.uky.edu/geography_etds/27

This Doctoral Dissertation is brought to you for free and open access by the Geography at UKnowledge. It has been accepted for inclusion in Theses and Dissertations--Geography by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student's advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student's thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

Timothy J. Brock, Student

Dr. Andrew M. Wood, Major Professor

Dr. Patricia Ehrkamp, Director of Graduate Studies

ENTREPRENEURIAL PLANNING AND URBAN ECONOMIC DEVELOPMENT:
THE CASE OF ESTABLISHING COMMUTER RAIL IN ORLANDO, FLORIDA

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy
in the College of Arts and Sciences
at the University of Kentucky

by

Timothy J. Brock

Lexington, Kentucky

Director: Dr. Andrew M. Wood, Associate Professor of Geography

Lexington, Kentucky

Copyright © Timothy J. Brock, 2014

Abstract

ENTREPRENEURIAL PLANNING AND URBAN ECONOMIC DEVELOPMENT: THE CASE OF ESTABLISHING COMMUTER RAIL IN ORLANDO, FLORIDA

Rooted in the theories of urban entrepreneurialism, this dissertation employs a political economy framework as a means of analyzing urban governance and economic development in the contemporary US city. This case study of Orlando adds to our understanding of how entrepreneurial narratives are being applied to transportation infrastructure projects in pursuit of local economic development.

The empirical case study explores the relationship between planning narratives, urban governance and economic development in the establishment of the SunRail commuter rail system in central Florida. I present the political history of economic development and the role of local boosters in shaping the sociospatial distribution of urban infrastructure and public investment in Central Florida. Utilizing a qualitative research methodology, the case study is based on a series of extended interviews with transportation planners, urban policymakers and community leaders in the Orlando area. The empirical data was complemented with official documents and archival records concerning the planning of transit-oriented developments along the SunRail system.

This research presents the current efforts of Central Florida boosters to apply governance approaches to reshape the urban form and to direct the ensuing flows of capital investment through the restructuring of the region's transportation infrastructure and employing planning narratives that draw heavily on creating amenity growth strategies. Local boosters expect that by providing dense development corridors through the region, including transit-oriented development centers, the city will have met the pre-conditions for attracting private capital investment. Specifically, local leaders are seeking to attract investment by the type of firms that will provide high-wage jobs to the region to balance the glut of low-wage service sectors jobs found in the region's theme park industry. In the case of Central Florida, early private investment in SunRail adjacent property has come from local firms that tend to have a high level of local fixity and existing investments in the Orlando market.

Keywords: Commuter Rail; Orlando, Florida; Transit Oriented Development; Urban Entrepreneurialism; Urban Governance.

Timothy J. Brock
Student Signature

August 1, 2014
Date

ENTREPRENEURIAL PLANNING AND URBAN ECONOMIC DEVELOPMENT:
THE CASE OF ESTABLISHING COMMUTER RAIL IN ORLANDO, FLORIDA

By

Timothy J. Brock

Dr. Andrew M. Wood
Director of Dissertation

Dr. Patricia Ehrkamp
Director of Graduate Studies

August 1, 2014
Date

To the Gin Palace Society;
Never stood such a collective of scholars dedicated to the pursuit of intellectual
merriment.

Acknowledgments

I would like to offer my heartfelt thanks to a number of people who assisted and supported me in my dissertation research endeavor. I am grateful for the time, energy and efforts so many members of the academic community have invested into my doctoral process and my growth as a scholar.

I am especially appreciative of the guidance and mentorship of my advisor and friend Andy Wood. His tireless tutelage and keen editorial vision not only enhanced my current research, but helped my scholarship mature. I am thankful for the guidance and insight offered by my committee members: Matt Zook, Michael Samers, Kristin Monroe and Ted Grossardt.

In addition, a kudos is due to the Geography Department at the University of Kentucky for providing a theory-laden community of scholarship. Special thanks to the graduate student camaraderie and the countless academic discussions that unfolded at happy hour. My research also greatly benefited from a sustained conversation with the critical minded urban scholars in Geography and Anthropology – most notably Meg Maurer.

I greatly appreciate the productive work space and professional support provided by my colleagues in the policy section at the Kentucky Transportation Center – Ted, Ben, John, Len and Michael. Ted provided me with great insight into project management and the intersection between the practice and theory of transportation geography. Ben and John's GIS expertise was a great help in this – and many other – research projects. Len challenged my theory at every turn. And I found our office 'race to finish' – being a dead heat between Michael, Ben and myself – to be a daily motivator down the stretch.

On the home front, I owe a huge amount of love and gratitude to my inspiring wife Victoria Dekle. In addition to her constant support and love, I found our weekend morning research discussions over coffee theoretically rich and immensely motivating.

Thanks to all the research participants who took the time to be interviewed, offered candid discussion on SunRail and providing me with mountains of planning documents and economic impact reports. Without their enthusiastic participation, this research would not be possible.

I would also like to acknowledge and thank the research support and graduate school funding that assisted me in the dissertation process: Kentucky Transportation Center research assistantship, Transportation Systems Management scholarship program in the UK College of Engineering, Ezra Gillis Graduate Tuition Scholarship from the UK Graduate School, Barnhart-Withington award from the UK Department of Geography and the Dissertation Enhancement Award from the UK Graduate School. A special thanks to Reg Souleyrette and the NuRail Center for partnering with me to conduct a national comparative study of commuter rail systems that informed sections of my introductory chapter.

Table of Contents

ACKNOWLEDGMENTS	III
LIST OF TABLES	VII
LIST OF FIGURES	VIII
INTRODUCTION	1
METHODOLOGY.....	2
<i>Semi-Structured Interviews.....</i>	3
<i>Documenting Sites with Visits.....</i>	5
<i>Document Collection.....</i>	5
<i>Data Analysis</i>	6
SITUATING US COMMUTER RAIL.....	7
<i>History of Passenger Rail and Commuter Rail</i>	9
<i>Commuter Rail Systems</i>	12
CONCLUSION.....	14
ENTREPRENEURIAL GOVERNANCE AND URBAN MOBILITY:.....	16
NEOLIBERAL GOVERNANCE AND THE CITY.....	17
URBAN ENTREPRENEURIALISM.....	19
<i>Inter-Urban Competition</i>	21
<i>Speculative Public Investment</i>	26
<i>Placemaking and Marketing an Urban Imaginary.....</i>	29
SPATIAL FIXES AND THE ATTRACTION OF MOBILE CAPITAL.....	30
CONCLUSION.....	33
ORLANDO'S 'MOVERS AND SHAKERS':.....	34
ORLANDO'S ECONOMIC GROWTH: FROM THE AGRICULTURAL ECONOMY AND THE POST-WAR BOOM.....	37
<i>The Road to a Military-Industrial Economy</i>	38
<i>Entertainment Tourism and the Theme Park Agglomeration.....</i>	41
CURRENT ECONOMIC GROWTH: MEDICAL TOURISM, BIOMEDICAL RESEARCH AND SIMULATION TECHNOLOGY.....	44
<i>Public Subsidies and Technology Agglomerations</i>	45
<i>Biomedical Technology Research and Health Care Clusters</i>	47
<i>Entrepreneurialism versus Traditional Boosterism</i>	56
<i>Coalition Building and Placemaking in Central Florida.....</i>	59
ESTABLISHING SUNRAIL.....	66
PREVIOUS ATTEMPTS AT ORLANDO RAIL TRANSIT	66
<i>Maglev Rail Project – 1980s</i>	67
ORLANDO LIGHT RAIL SYSTEM – 1990s.....	69
THE HISTORY OF SUNRAIL PLANNING AND POLITICS	72
<i>The Politics of Financing SunRail.....</i>	77
<i>Political Coupling of SunRail and High Speed Rail</i>	81
<i>Florida Rail and Tea Party Politics</i>	85
THE SUNRAIL COMMUTER RAIL SYSTEM: FINANCING AND TRANSIT-ORIENTED DEVELOPMENT.....	88
<i>SunRail Financing.....</i>	90
<i>Shared Corridor and Right-of-Way</i>	93
<i>Transit-oriented development and Connectivity.....</i>	94
CONCLUSION.....	96

SUNRAIL AS ENTREPRENEURIAL GOVERNANCE:.....	98
SUNRAIL NARRATIVES AND THE PUBLIC DISCOURSE	99
TRANSIT-ORIENTED DEVELOPMENT	108
<i>SunRail Transit-oriented development</i>	110
MOBILITY OF PRIVATE INVESTMENT: THE BUILT ENVIRONMENT AND THE SPATIAL FLOWS OF CAPITAL.....	115
CONCLUSION.....	118
CONCLUSION	119
REFERENCES	121
APPENDICES	132
APPENDIX A: RESEARCH INTERVIEWS	133
APPENDIX B: US COMMUTER RAIL SYSTEMS.....	134
VITAE	136

List of Tables

Table 1: Typology of American Rail.....	8
Table 2: Waves of Orlando Economy	34
Table 3: The Population of Orange County, Florida.....	37
Table 4: Local Investment in Transit-Oriented Development Projects.....	116

List of Figures

Figure 1: SunRail Commutershed with Orlando Economic Centers	35
Figure 2: Orlando's Proposed Light Rail System	70
Figure 3: 'Blood Map' of Roadways Projected Over Capacity in 2050'Blood Map' of Roadway	76

Chapter One

INTRODUCTION

Rooted in the theories of urban entrepreneurialism and the neoliberal city, this research employs a political economy framework as a means of analyzing transit-oriented development in the contemporary North American city. Transportation infrastructures have an inherent tension between fixity and mobility, both as manifestations of politico-economic regulatory mechanisms and as material constructions in the built environment. Local economic development strategies situate transportation infrastructure as a pre-condition for attracting inward investment and restructures the flows of private investment along dense transportation corridors. This dissertation highlights the relationship between capital investment, urban infrastructure and local economic governance. The spatial restructuring of cities under neoliberal conditions creates new narratives of urban competition; mobile capital investment circulates among cities and fosters increased inter-urban competition. As cities scramble for more investment they establish funding and infrastructure packages to meet the needs of growth industries, providing public funding to entice inward investment.

This research presents a case study of a commuter rail system currently being established in Central Florida. By employing semi-structured interviews with the planners, policymakers and business leaders involved in the establishment of the SunRail commuter system, I analyze the discourse surrounding the transit infrastructure project. The work of establishing a commuter rail route began in the late 1990s as an alternative analysis scenario in an environmental assessment to mitigate air pollution and reduce traffic congestion. Additional funds became available when the commuter rail system was framed as a viable means to mitigate capacity on US Interstate-4 during a proposed expansion project. While environmental sustainability and congestion mitigation were early narratives to justify SunRail, those narratives soon turned to economic development. With the 2007 recession, local policymakers looked to SunRail to provide much needed job creation in the region and stimulate economic growth through transit-oriented development projects. Local boosters began backing the commuter rail project as a means of stimulating the economy by creating a more ‘competitive city’ for attracting capital investment.

In the research that follows, I draw upon the concept of urban entrepreneurialism and the claim that entrepreneurial strategies foster inter-urban competition in the attempt to attract inward investment. This, in turn, increases the mobility of private investment, as public funds are spent to attract investment that is constantly in search of economic advantage. The ephemeral nature of

any advantage created means that a city is left to deal with the economic cost of infrastructure amenities once industries depart in search of more lucrative public subsidies. In this introductory chapter, I outline my methodological approach and situate the context of commuter rail in the United States. I present the methods employed to study the case of Orlando commuter rail. Lastly, I establish the broader context of US commuter rail and particularly how planners and engineers situate the goals of commuter rail.

Methodology

My empirical case study explores the complex relationship between urban governance and economic development in the establishment of the SunRail commuter rail system in Central Florida. In order to better understand this relationship, I use primary and secondary sources to examine the political history of economic development in Orlando and the role of local boosters in shaping the socio-spatial distribution of urban infrastructure and public investment. Utilizing a qualitative research methodology, the research is based on a series of extended interviews with transportation planners, urban policymakers and business leaders in the Orlando area. Additionally, I visited each commuter rail station site to document land use and its place in the built environment prior to the construction of SunRail stations. I complemented the primary data collected by analyzing official documents and archival records concerning the planning of transit-oriented developments along the SunRail system.

In spring 2011 and 2012, I undertook research trips to Orlando, Florida to conduct interviews, site visits and document collection. The trips generated 27 semi-structured interviews with 24 research participants, including local boosters, planners and policymakers involved with the SunRail system (see Appendix A: Research Interviews). The initial study visit enabled me to interview seven SunRail planners and policymakers, one newspaper reporter at the local transportation desk and one planner with the Tri-Rail commuter system in Miami, Florida. These interviews helped establish a list of other potential research participants for future interviews. The current urban form and level of economic development at each of the 17 future SunRail stations sites were documented with field notes and photographs. With the Governor of Florida waiting until July 1, 2011 to issue his decision to proceed with the SunRail project, planners and policymakers interviewed were very ‘on-point’ with their interview responses in May 2011. Follow up interviews with planners interviewed during the first research trip provided interviewees an opportunity to be more candid as the project became more certain and less politically contentious.

Follow-up interviews during the second research trip in March 2012 provided me with the opportunity to compare interview responses prior to the official project approval with responses during the construction phase. The second round of interviews allowed new research participants to be identified and interviewed. During this phase of the research, I was able to attend the quarterly SunRail Technical Advisory Committee (TAC) meeting. The TAC's role is to provide planning, design and engineering leadership for the project. The Governance Board is the more political component of the project leadership and allows the TAC to steer the technical elements of establishing the commuter rail. The next four subsections present more detail on the interviews, site visits, documentation collection process and data analysis.

Semi-Structured Interviews

I conducted semi-structured one-on-one interviews with transportation planners, urban policymakers and community leaders in the Orlando, Florida metropolitan area. The methodological appropriateness for qualitative interviews follows from Silverman (2006) and the standard for interview rigor from Baxter and Eyles (1997) and Mays and Pope (1995). Urban researchers employ qualitative and ethnographic methodologies to study policy issues. My research examines the case of local transportation policy in Orlando as a means of better understanding the relationship between urban governance practices, economic development and the politics of planning. While this research is local and place specific, I situate it within a more global context to illuminate a more general understanding of the interplay between urban governance, economic development schemes and capital investment in the restructuring of urban transportation infrastructure.

Interviewees were selected in an ex officio and professional capacity with no prejudice or criteria for demographic characteristics. My interview request focused on public sector planners and local officials, including the quasi-public and private sector consultants involved in the planning of the SunRail system and transit-oriented development. I also sought interviews with local boosters and larger booster organizations, including local chambers of commerce. The public planning and policymaker participants included members of: SunRail Governing Board, Florida Department of Transportation (FDOT), SunRail Technical Advisory Committee (TAC), MetroPlan Orlando, the Orlando Mayor's Office and several city and county commissioners. The governing board consists of county and municipal representatives from Orange, Osceola, Seminole, and Volusia counties and the City of Orlando. The technical advisory board consists of members from FDOT, planners and project engineers from local county and municipal

governments and representatives from private consulting firms. The local metropolitan planning organization (MPO), MetroPlan Orlando, coordinates the long term transportation planning needs of the three metropolitan Orlando counties. Local business leaders interviewed include representatives of the Central Florida Partnership, MyRegion, Orlando Hispanic Chamber of Commerce, Leadership Seminole and various county business development groups.

In my initial attempt to reach potential interviewees, I sent a request for an in-person interview to individuals and organizations to publically listed email addresses. A second set of interviewees was derived by employing a ‘snowballing’ technique (Heckathorn, 2002; Goodman, 1961). Some research participants suggested other local leaders that could help benefit my research, with many of interviewees providing me the contact information for their suggested participants. This was a valuable tool to acquire contact information and solicit potential research participants and to trace social relationships among Central Florida planners, policymakers and boosters.

I conducted semi-structured interviews that allowed for both continuity and flexibility during the interview process. While everyone was asked a baseline of questions, regarding topics such as project goals, ideal outcome for SunRail and the impact of a commuter rail system on the city/region, a semi-structured format allowed me to delve into more detailed planning issues with urban planners and more detailed visions of economic growth with local booster organizations. It also allowed me to build on information from previous interviews, to verify information from other participants and expand my data set on specific topics.

Most interviews were documented in two ways: (1) audio recordings using a digital voice recorder and (2) handwritten notes. The interview data was transcribed, reviewed, annotated and verified for accuracy by revisiting the digital audio recordings. All participants consented to the interview and each interviewee signed a consent form indicating their preferred level of anonymity in reporting the results. Many of the interviewees gave their consent to be audio recorded using a digital voice recorder and those interviews were recorded for later review. However, some interview participants declined to be recorded for various reasons, including: a representative from the City of Orlando was politically cautious and declined; based on policies from their legal department Tri-Rail representatives declined; the members of the Seminole County Economic Development booster group were not recorded due to the time constraints of this impromptu series of interviews arranged by the representative from Leadership Seminole and a phone interview with the project’s transit-oriented development consultant from engineering firm AECOM was not recorded due to scheduling issues and a technology malfunction. While these interviews were not available for further review, they did provide great insight into the

planning narrative that I recorded with hand written notes. Another opportunity to better understand the public debate without the benefit of an audio recording was the March 2012 TAC meeting, where I took notes and scheduled further interviews. Attending the meeting allowed me an opportunity to situate the public debate surrounding the SunRail system and to meet some new planners, policymakers and private consultants. No formal interviews were conducted at these public meetings and no audio recording was taken of the public meeting.

Documenting Sites with Visits

During the 2011 research trip to Orlando, I visited all 17 future SunRail station sites to document the existing level of development and the socio-economic landscape before the construction of commuter rail. I took field notes and photographs for each site. In addition to adding context to the current research project, this provides me with the later opportunity to examine development at subsequent future dates. Once SunRail is operational, I can return to the stations to document the economic growth, restructured built environment and changing sense of place. Given current transit-oriented development plans and the amount of property being parceled off in anticipation of the commuter rail, it is expected that land adjacent to the station sites will develop rapidly in the coming years. In addition to documenting the planned SunRail station sites, I traveled to south Florida to document the Tri-Rail system in Miami. These site visits allowed me to better situate the spatial arrangement of commuter rail in Florida and document a specific moment in the development of the Florida commuter rail.

Document Collection

The research used two document sources – primary planning documents and local media accounts. The primary planning documents consisted of technical reports, land use plans, ridership projects and public outreach materials. Most of these documents were produced or distributed by the Federal Transit Administration (FTA), Florida Department of Transportation (FDOT), MetroPlan Orlando and local - county and city - planning agencies. With the SunRail planning documents being public record, obtainable by open records request or publicly published, these documents were readily accessible. Much of the public outreach materials, basic land use planning, economic development projections and minutes for public meetings were obtained from the SunRail website. Documents that could not be acquired online were informally requested during interviews. I also received unsolicited reports, plans, maps and documents from my interviewees.

Another source of documents was local booster organizations and economic development groups, such as the Central Florida Partnership, MyRegion and county economic development organizations. These organizations produced and distributed documents on integrated land use planning, transportation connectivity and economic development. The documents provided by county development agencies and booster groups tended to focus on the more localized impact of SunRail on the built environment and economic growth and commonly focused on what SunRail could bring to specific suburban centers along the commuter rail route. Central Florida Partnership, a local regional booster organization, and its subsidiary planning organization, MyRegion, conducted research on integrated land use planning and economic development for the seven county region of Central Florida. These documents focus on the impact of rail connectivity, dense urban development corridors and environmental amenity preservation on the region's potential to attract inward private investment.

My research also used media accounts of the SunRail debate, specifically articles and editorials from the local newspaper, *The Orlando Sentinel*. I conducted a thorough and systematic survey of *Orlando Sentinel* archives on SunRail related articles published between January 2002 and July 2013. I also employed more targeted searches for specific *Sentinel* accounts on topics such as the failed Orange County light rail in 1999 and medical city and healthcare tourism development in recent years. In addition to the *Orlando Sentinel*, I acquired articles from other newspapers in Florida including the *Tallahassee Democrat* and two south Florida newspapers, *The Miami Herald* and *The Sun Sentinel*. I also drew on some Central Florida business news sources and trade publications for information on transit-oriented development growth in the region.

Data Analysis

The data obtained from interviews, planning documents and media accounts were documented and reviewed for reoccurring themes and narratives. I transcribed the interview data and compared the transcripts for common narratives and themes across research participants. To ensure the accuracy of this data, I cross-referenced information among interviews and compared the data provided during interviews with project planning documents. I manually transcribed and reviewed the interview sessions, annotating themes in the planning narrative and comparing reoccurring themes among interview transcriptions and primary planning documentation. Some interviewees provided me with planning documentation that served as an extension of the

interview narrative. I hand coded for reoccurring thematic narrative clusters and cross referenced each interview transcript and accompanying documentation.

By examining interview records – transcriptions, interview notes, the original audio recordings, primary source documentation and media accounts – I was able to employ a triangulation method of data verification. Triangulation is an accepted approach for establishing the validity of empirical qualitative data in the social sciences (see Denzin, 1970; Flick, 1992; Baxter and Eyles, 1997) and Sayer (1992) has argued that triangulation methods are appropriate for critical realist approaches to research. In addition to checking the validity, cross-referencing the interview data among research participants provided an opportunity to see how the narratives varied and the diffusion of ideas from booster groups and planning agencies.

Situating US Commuter Rail

Understanding the difference between commuter rail and other categories of rail transportation is crucial to understanding the complex political history of SunRail, especially as the political discourse begins to couple the SunRail commuter rail system with the terminated Florida high speed rail (HSR) project. Understanding the broad national context of financing and planning commuter rail helps to situate the local expectations of Central Florida commuter rail.

Alternative modes of urban transportation are becoming more important in sprawling urban areas with increasingly congested roadways. Many cities are turning to commuter rail as a viable mode of public transportation. Currently, there are 26 operational commuter rail systems located in 29 major U.S. metropolitan areas. Long term trends indicate that commuter rail service will continue to grow nationally, as forecasted by the 28 percent increase in national ridership between 1997 and 2007. During this period, commuter rail added 100 million additional riders (FRA, 2009).

Planners view commuter rail as a means of managing urban sprawl, stimulating economic development and reducing the environmental impacts of transportation. Commuter rail systems, which move passengers between the suburbs and downtown on shared corridors, are beginning to have a large impact on the way people and freight move through US cities. Commuter rail and its subsequent transit-oriented development (TOD) provide opportunities for cities to re-shape their urban form and stimulate economic development. By creating dense, mixed use TOD zones along commuter rail stations, urban transportation planners hope to foster the establishment of livable, economically prosperous and environmentally sustainable communities.

Despite the recent increase in commuter rail systems, there is often confusion in differentiating commuter rail from light rail and heavy rail. In situating commuter rail systems in the broader context of rail transportation it is necessary to highlight the policy history of U.S. commuter rail systems. American rail systems can be divided into four broad categories: freight rail, inter-urban passenger rail, urban rail transit and commuter rail. The Federal Railroad Administration (FRA) regulates passenger rail and freight rail, as these two industries often share track infrastructure and right-of-way corridors. FRA's primary concern is the safe and efficient integration of both services on shared corridors (FRA, 2009). Urban rail transit, an electric powered vehicle on a fixed guideway, serves to transport passengers within the city center. Urban rail transit is divided into the two categories of heavy rail and light rail and is regulated by the Federal Transit Administration (FTA). Heavy rail, called subways or rapid rail transit, operates on a separated right-of-way and moves large numbers of passengers at once. Light rail, sometimes called streetcars, operate on reserved corridors along highway medians, at-grade with street traffic or on separated right-of-ways. In common parlance, 'light rail' usually refers to a separated right-of-way, while 'streetcar' usually refers to at-grade vehicles that mix with traffic (APTA, 2012; Pushkarve et al., 1982).

Table 1: Typology of American Rail
(Brock and Souleyrette, 2013)

	Internal Typology	Regulatory Agency	Geographic Scale
Freight Rail	Class I Regional Rail Shortline	FRA	National/Regional Network
Passenger Rail	Amtrak Alaska Railroad High Speed Rail	FRA	National Intercity Connectivity
Commuter Rail	Legacy New Start	FTA, FRA	Greater Metropolitan Commuter Shed
Urban Rail Transit	Light Rail (Street Cars) Heavy Rail (Subway or Metro)	FTA	Intra-Urban /Downtown

Commuter rail, sometimes called regional rail or suburban rail, is uniquely situated between standard passenger rail and urban rail transit. Commuter rail refers to a rail route that connects the downtown of a major city to the surrounding suburban communities. Commuter rail systems operate frequent and regular services that are scheduled around traditional peak commuting hours. These services are designed to move commuters within the greater metropolitan commuteshed, establishing a connection between suburban communities and the city center (APTA, 2012; Pushkarve et al., 1982). Commuter rail systems operate on shared corridors with freight rail carriers and Amtrak passenger rail. These shared commuter corridors usually range between 30 and 200 miles of track, although the very largest systems in the country have up to several hundred miles of track (see Appendix B).

History of Passenger Rail and Commuter Rail

The 1920s were the golden age of rail, as the number of US passenger miles hit its peak. By 1970 passenger miles had dropped to twenty percent of the miles traveled in 1920 (Fisher and Nice, 2007). While passenger miles peaked in the late 1920s, ridership increased until the 1940s. Rail ridership peaked between 1944 and 1945, due in part to war related gasoline rationing and the suspension of automobile production (Post, 2007). Since 1945, rail ridership has been in state of steady decline, as privately held commuter and passenger rail companies became financially unviable (Fisher and Nice, 2007; Dilger, 2003). Two reasons for passenger rail service decline in the post-war era were the lack of public subsidies for rail and the increased desire for more personal mobility. Unlike the highway and aviation industries, which did not own their modal infrastructure, the rail industry owned both the infrastructure, such as tracks and right-of-ways, and their rolling stock, including locomotives and train cars (Nice, 1998). Other modes of transportation were served by public investment in infrastructure, most notably federally funded highway projects, including the Eisenhower Interstate System (FRA, 2009). This business model exposed passenger rail to more risk than the highway and aviation industries, since the rail industry had a vertically integrated operation with privately owned infrastructure. The initial government subsidies provided to railroads in the late 1800s and early 1900s had been paid back by railroads in the form of heavily discounted movement of US military personal and equipment during both World Wars (Nice, 1998).

While early rail structures often conflated freight and passenger operations, these two rail industries became distinctly separate after World War II. Passenger rail was the first to fall into decline; a victim of the new demand for fast and flexible personal mobility (Perl, 2002). When

the decline began in the passenger rail industry, freight carriers learned from the hardships of passenger rail. The freight rail industry appealed to public policymakers and distinguished itself from the passenger rail industry (*ibid*). As a result of this separation, the two industries now have very different business models, employ different financial policies and advocate for distinct public policies.

With little public investment in rail infrastructure and rapidly increasing post-war demand for personal transportation, operating private passenger rail services became less and less profitable. Many privately held regional rail companies began discontinuing passenger rail routes and ending regional commuter rail services (Perl, 2002; Hilton, 1980). The closure of these failing rail services had traditionally been regulated by state government, allowing each state to set their own conditions by which companies could withdraw passenger rail services. In an attempt to more uniformly regulate and manage rail service, the Interstate Commerce Commission (ICC) was charged with approving service closure in 1958 (Hilton, 1980). While this federal intervention provided more consistent terms of discontinuation, it did not slow the rate at which local and regional rail lines were closing.

Wanting to establish a coherent national policy on public rail transit in 1962, the Kennedy Administration asked Congress to conduct a comprehensive study of US urban mass transit policy and passenger rail right-of-ways, as a means to facilitate the creation of a national multimodal transit system. This emphasis on multi-modal transport was a departure from the planning convention of the time, which sought to improve the US transportation network by updating and expanding the US interstate system (Stilgoe, 2007). However, the Kennedy administration's emphasis on an increased network of passenger rail connectivity was not enough to curb the high rate of rail closures across the country.

In response to the rapid decline of passenger train routes, the US government consolidated the declining private network of intercity passenger rail carriers into a federally subsidized national rail system. The Nixon administration passed the *Rail Passenger Service Act of 1970*, establishing the National Railroad Passenger Corporation. Beginning service in 1971 under the title of Amtrak, the new national rail system was established as a for-profit enterprise formed by a board of incorporators picked by the Nixon administration. The board was to be composed of 15 directors: 8 presidential appointments that required Senate confirmation, 3 elected by the common stockholders, and four elected by preferred stockholders. Existing railroads were the only companies allowed to participate as common stockholders and invested in the new company by providing Amtrak with rolling stock. Existing rail lines were allowed to opt out of the Amtrak common share program, however the bill required all non-participating

railroads to maintain their current service routes for at least four years (Hilton, 1980). While freight rail services still operated as private, for-profit entities, the *Rail Passenger Service Act of 1970* allowed the federal government to relieve freight rail lines of their common carriage responsibilities to transport passengers (FRA, 2009; Hilton, 1980).

It quickly became apparent that Amtrak was losing money and would require fiscal support from the federal government. The years that followed were peppered with additional funding bills, policies to regulate fares and various other interventions, creating a strong partnership between the federal government and Amtrak. Despite the need for public funding, Amtrak was successful in increasing the number of passenger miles traveled. By 1991, the number of intercity passenger miles in the US had doubled the 1972 levels (Fisher and Nice, 2007). This success has been attributed, in part, to increased destination side connectivity, resulting from the resurgence of urban commuter rail systems and new light rail systems.

Urban rail transit systems began their resurgence with President Kennedy's 1962 special message to Congress, in which he called for new planning efforts and capital assistance for US urban mass transit. In 1964, Congress established the Urban Mass Transit Administration (UMTA), precursor to the Federal Transit Administration, to address the need for new urban transit infrastructure. UMTA began providing capital grants for public transit projects to metropolitan areas with a comprehensive transportation plan. The initial focus of the grants was to address the problem of deteriorating commuter rail services (Post, 2007). The timing of federal transit funding coincided with urban environmental and anti-freeway movements, both of which called for better public transit systems. The availability of federal transit funds and the increasing public support for urban rail immediately made an impact on urban transit projects, specifically the establishment of urban rail projects to replace proposed highway projects. The two largest and most notable transportation projects that embraced this rail renaissance were San Francisco and Washington, DC. San Francisco was planning an elevated superhighway project that was rejected in favor of building what would become the BART light rail system. Washington DC opted for the construction of the DC Metro heavy rail system over a proposed 8 lane highway that would have cut across the city (Post, 2007). In an effort to improve funding for urban transit, the 1974 *National Mass Transportation Assistance Act*, allowed some funds from the Highway Trust Fund, which is funded by fuel taxes, to be diverted to rapid transit projects (Post, 2007).

Commuter Rail Systems

Commuter rail systems can be classified into ‘legacy’ and ‘new start’ systems. Currently, there are 9 legacy rail systems and 17 new start systems operating in the US. Legacy rails are systems that were in operation as privately owned transit or passenger rail services, prior to 1950. With the decline of rail ridership after World War II, many private rail companies discontinued regional rail services. Some of these systems were then acquired by local public transit agencies as a means of maintaining a vital part of the urban transportation network of large traditional American cities. Most of these systems began current operations under the auspices of a public transit agency in the 1970s and 1980s, although their private precursors often date back to the mid-1800s. Municipal transit authorities often acquired these systems as a turn-key operation, complete with right-of-way and rolling stock. Many legacy systems were purchased from Conrail by public transit authorities in 1983 and 1984, as a part of the *Northeast Rail Service Act of 1981* (NERSA). NERSA relieved Conrail from its commuter service obligations, allowing the nearly bankrupt company to sell its commuter rail systems to state and municipal transit agencies (FRA, 1998; TRB 2010). The systems purchased from Conrail as a result of NERSA are: Maryland Area Regional Commuter (MARC), Massachusetts Bay Transportation Authority (MBTA), Metro North, New Jersey Transit and Southeastern Pennsylvania Transportation Authority (SEPTA).

New start systems are commuter rail projects originally established by public transit agencies after 1980. Rather than purchasing the right-of-way and rolling stock from an existing private commuter service, new start systems have had to negotiate the terms of establishing a new shared corridor with the freight rail carriers that own the track infrastructure. Currently, most legacy and new start commuter rail systems subcontract the day-to-day operations to private companies. However, these systems are still under the governance of local public transit agencies. For the past 30 years, the Federal Transit Authority has offered funding through new start grants for fixed guideway transit systems, including commuter rail systems. These grants are designed to offer financial support for local and state governments to plan, implement and operate an urban mass transit system. The agency has been charged with establishing and evaluating the grant criteria for each phase of new start commuter rail – alternatives analysis, preliminary engineering and final design (FTA, 2012).

A survey of new start systems shows three common scenarios faced by local transit agencies as they consider establishing new commuter rail systems. Many new start commuter rails are built in areas that have recently begun to urbanize rapidly. These systems are designed

and built from the ground up, often with no previous history of commuter rail service. Occasionally, the initial justification for these new start systems is as a temporary solution to mitigate congestion from a major highway project, as required by the Federal Department of Transportation. The Shore Line East in New Haven, Connecticut originated as a temporary congestion mitigation plan, but the success of the system has lead to the permanent operation of the commuter service. In similar fashion the initial alternative analysis study for the forthcoming SunRail system in Orlando, Florida was implemented as a means of mitigating a major construction project on US Interstate 4.

The second scenario is the reestablishment of long dormant commuter lines that existed in large urban centers but were not acquired by public transit agencies after their closure. Some new start commuter rails had commuter services operating prior to 1950, but those services were abandoned for several decades prior to the implementation of new commuter rails. One example is the Virginia Railway Express, which services Washington, DC and Alexandria, Virginia. The contemporary commuter service began operations in 1992, nearly four decades after the last commuter rail system in Northern Virginia was discontinued. The third scenario is the modification of an existing passenger rail service to provide commuter rail services. These new start systems expand the capacity of existing Amtrak passenger rail services, allowing a set of commuter express trains to run hourly at peak hours. The Downeaster in Portland, Maine and the Keystone Line in Pennsylvania are both examples of this approach to establishing commuter rail.

One of the most important components of establishing a new start commuter rail system is acquiring rail corridor access from the freight carriers that own the infrastructure. There are three arrangements for acquiring commuter right-of-way. The first is the outright purchasing of the corridor and track infrastructure. This usually requires the transit agency to allow the freight carrier to lease an exclusive right-of-way for freight movements on the tracks. The second is to purchase an easement from the freight carrier. The third is leasing time on the corridor. The Sounder in Seattle, Washington combined both arrangements, purchasing a section of track between Tacoma and Lakewood and agreeing to a long term lease to run 30 commuter trains a day from Seattle to Tacoma. The acquisition of the right-of-way requires commuter rail systems to expand the capacity of the corridor to accommodate future commuter and freight needs. Actions to accomplish this include double tracking of the shared corridor as well as funding infrastructural improvements for alternate lines to bypass the shared corridor.

Purchasing the corridor requires the commuter rail system to maintain track infrastructure, including the dispatching services. By controlling dispatching services, a commuter system can give priority to commuter trains. The RailRunner system in

Albuquerque/Santa Fe, New Mexico purchased their corridor and operates the dispatch services for the line. Easement and leasing arrangements, such as that for the Tri-Rail system in Miami, Florida, allow the freight lines to maintain the signaling and dispatching operations on the line, thereby allowing the freight carrier to prioritize freight trains over commuter trains. The Tri-Rail system has historically had problems with their on-time performance record given their inability to control system dispatching services, thus allowing the freight dispatchers to prioritize freight trains over commuter trains. The Tri-Rail system recently restructured their lease agreement to purchase the tracks used by the commuter system (Progressive Railroading, 2013). Tri-Rail was able to establish this new agreement mirroring the SunRail contract to purchase track infrastructure in Orlando.

Conclusion

Having established a brief history of commuter rail and the research methodology underpinning this research, I will set out the structure of the argument that follows. Chapter One, lays out the theoretical argument. Situating the relationship between neoliberal policy at the national scale and entrepreneurial governance at the urban scale, the Chapter makes the case that urban entrepreneurialism provides a means to explore issues of amenity-based economic development and the spatio-economic restructuring of urban infrastructure that accompanies development.

Chapter Two explores the history of economic development in Orlando and Central Florida and highlights the role of local boosters in restructuring the city to foster economic growth. Starting with Orlando's early citrus agriculture economy, the chapter sets out four distinct waves of booster led economic development. World War Two brought a thriving military-industrial economy to Central Florida and with an US Army airfield, space and missile center and private aerospace firms, the region developed around the Cold War era arms race. The third wave of economic development was centered on entertainment tourism and the region's cluster of theme parks. Starting with Disney and followed by Sea World, Universal Studios and the International Drive entertainment district, this wave brought many low-wage service sector jobs to the area. The new emerging fourth wave of economic development is centered on an attempt by local boosters to establish a medical tourism industry in Orlando. With a cluster of both hospitals and hospitality capacity, local boosters established a new Medical City research development and a College of Medicine at the University of Central Florida.

The political history, technical planning and financing of SunRail is set out in Chapter Three. The SunRail commuter rail system has been a politically contentious issue for over a decade. Emerging as a strategy to address the issues of urban sprawl, traffic congestion and air pollution in the aftermath of Orange County's rejection of a light rail project in 1999, SunRail became a battleground issue for local Orlando boosters seeking to stimulate economic development and a Tea Party governor seeking to employ austerity policies in Florida.

The final chapter presents the analysis of the Orlando case study; exploring the specific impacts of the SunRail project on structuring the politico-economic climate and built environment in the region. Making the case that SunRail functions as a classic example of urban entrepreneurialism, I examine the political narratives surrounding the rail transit system and highlight the discourse of placemaking and inter-urban competition utilized by local boosters, planners and policymakers. The material manifestation of this entrepreneurial discourse is the restructuring of rail adjacent land use to establish transit-oriented development projects.

Copyright © Timothy J. Brock, 2014

Chapter Two

ENTREPRENEURIAL GOVERNANCE AND URBAN MOBILITY: A CASE FOR REVISITING URBAN ENTREPRENEURIALISM

Although Harvey (1989) articulated the concept of urban entrepreneurialism over two decades ago, the elements of entrepreneurial governance remain common practice for urban economic development (see Leitner 1990). Often conflated with neoliberalism, entrepreneurial governance is also at the epicenter of more recent work on the ‘competitive city’ and the ‘creative city’. Three elements of urban entrepreneurial governance deserve exploring in relation to contemporary theories of the ‘neoliberal city’: (1) inter-urban competition, (2) speculative public investment and (3) placemaking. Often associated with the reduction of state welfare services in favor of privatized service delivery, entrepreneurial strategies dovetail with broader neoliberal governance policies at the national and global scales. By comparing urban entrepreneurialism to broader constructions of the ‘neoliberal’, the case is made that the more focused theory of urban entrepreneurialism continues to serve as a useful analytic to understand the politics of economic development in the contemporary city.

Many authors frame contemporary urban governance as a neoliberal process, pursuing research on the ‘neoliberal city’ (Keil, 2009; Hackworth, 2007; Harvey, 2007). Indeed the ‘neoliberal city’ has become a near ubiquitous concept in urban geography, standing for everything that occurs in the contemporary city. Arguably, the reach of the term leads to a flat and monolithic understanding of the processes that constitute the urban. While broadly and ambiguously situated in relation to the transition from managerialism to entrepreneurialism, the neoliberal analytic has blanketed the study of local entrepreneurial governance without explicitly addressing the relationship between the neoliberal and the entrepreneurial. The ‘neoliberal city’, as an object of study, has tended to obscure a coherent body of work on urban entrepreneurialism (see Hall and Hubbard, 1998; Wood, 1998a, 1998b; Roberts and Schein, 1993; Leitner, 1990; Harvey, 1989). In an effort to better understand the means by which neoliberalism is enacted in the city, I suggest a return to entrepreneurialism as a means of furthering analysis.

Drawing from the literature on entrepreneurialism, contemporary urban governance can be framed as the manifestation of a symbiotic relationship between national neoliberal policy and local entrepreneurial governance. I will highlight entrepreneurialism as a strategy employed at the urban level as a means of adapting to the overall shift to neoliberal policies embraced at the national and even global scales. Contemporary North American cities have followed an entrepreneurial route, seeking to create a competitive business environment and increasing the

commodification of urban form through speculative public investment in economic development projects. By exploring the complex relationship between neoliberalism and entrepreneurialism, a case can be made that scholars should return to the ideas of urban entrepreneurialism in preference to the vast and sprawling connotations of the ‘neoliberal city’.

This should not be taken as a rejection of neoliberalism as an object of study per se, nor should it be taken as an attempt to deny the impacts derived from neoliberal policy and practice. Rather, I seek to provide a clearer understanding of how neoliberalism is adapted in the way that cities undertake governance and social reproduction. Neoliberalism can be thought of as an overarching ideology mobilized at the national scale working toward privatization and a conservative political project to reduce the involvement of the state. Entrepreneurialism is a form of local governance that employs a competitive strategy of public-private development projects to better situate the city in the broader context of neoliberal national policy.

Neoliberal Governance and The City

Neoliberal ideology is the veneration of the market economy, encouraging policies of deregulation and privatization resulting in the mass-privatization of services previously thought to be ‘public’ or ‘collective’ goods (Hackworth, 2007). Framed as a purely economic proposition, neoliberalism is “an ideological rejection of egalitarian liberalism in general and the Keynesian welfare state in particular, combined with a selective return to the ideas of classical liberalism most strongly articulated by Hayek” (Hackworth, 2007; pg. 9). Neoliberalism, however, has been situated as both an economic ideology that reifies free-market principles and as a conservative political project riddled with revanchist policies (Peck, 2006; Peck and Tickell, 2002; Smith, 1996). While neoliberalism is “technically, a set of doctrines regarding the appropriate framework for economic regulation, the term has been appropriated by scholars and activists to describe the organizational, political and ideological reorganization of capitalism that has been imposed through the attempted institutionalization of such ‘free market’ doctrines in specific historical and geographical contexts” (Brenner and Theodore, 2005; pg 102).

Peck and Tickell (2002) situate neoliberal governance as a process of ‘roll back’ neoliberalism, whereby government reduces public services. A subsequent stage of ‘roll out’ neoliberalism follows, as newly privatized goods and services are put in place to address the needs from ‘rolling back’ essential public services. Brenner and Theodore (2005) critique the notion of ‘roll back’ neoliberalism, noting that the state is the mechanism of economic

restructuring. Neoliberal governance does not eliminate the role of the state, but rather it requires the state to restructure in an effort to reify ‘free-market’ policies, practices and ideologies.

Neoliberal ideologies are actualized through everyday governance practices, which conflate economic theory and political project. As an overarching political project, neoliberalism is an attempt to usher in the next phase of capitalism, such that wealth is redistributed from the working class to a capitalist elite through a regime of accumulation by dispossession (Harvey, 2005; Dumenil and Levy, 2002). Harvey (2005) explains that the neoliberal has privileged the redistribution of wealth, in place of the traditional industrial-Fordist emphasis on production and external market expansion.

While these competitive strategies are conceptualized as abstract processes, they are implemented by a series of actors that form urban governance coalitions and economic governance organizations. The study of the ‘new urban politics’ critically examines the mechanisms of entrepreneurial governance situated within neoliberalism. A range of policies serve to regulate the deregulation and privatization of urban provenance infrastructure and essential services. Entrepreneurial governance strategies, situated in a larger neoliberal context, rely on real estate value extraction as a means of fostering continued private investment and development (Weber, 2002). Urban renewal projects are situated at the intersection of neoliberal policy and local entrepreneurial governance, as public risk subsidizes private value extraction. Weber (2002) points to an urban narrative of ‘obsolete’ spaces, which is used to promote privatized urban renewal and maximize the value extracted from urban property.

The rise of inter-urban competition between and among cities serves to facilitate a spatial restructuring of capital investment. This has brought about renewed attention to local politics, such as urban boosterism, growth coalitions and governing coalitions. Local urban policies of inter-urban competitiveness have permeated the discussions of economic development and the scale of regulation in, what Brenner and Theodore (2002) have called, the neoliberalization of urban space and the neoliberal localization of governance restructuring. The competitive city model, situated within the neoliberal literature, shapes a ‘social topology of entrepreneurialism’, whereby local growth coalitions are able to dictate the planning of urban infrastructure to increase the value of their speculative land holdings, in addition to property value in the city more broadly (Ward, 2000; Logan and Molotch, 1987). Capital’s need for unfettered urban growth was articulated by Logan and Molotch (1987) and their concept of the urban growth machine. Situating the historical power of local growth coalitions and their ability to influence the establishment of urban infrastructure as a means to increase and protect their speculative land holdings, Logan and Molotch draw attention to ‘landed interests’ in US local politics.

Specifically they examine the political power wielded by local rentiers as they assemble coalitions of ‘landed interests’ to achieve local development projects and increase property values.

Kipfer and Keil (2002) explore the notion of the ‘competitive city’ through Toronto’s vision for a 2008 Olympic bid, noting that much of this hinges on the city’s image - a city’s international reputation for being ‘progressive’, ‘trendy’ and ‘pro-business’. A competitive city is:

“defined by a complex of class alliances and political coalitions, neoliberal planning and economic policies, multicultural ‘diversity management,’ and revanchist law-and-order campaigns. A set of currently ongoing ‘visioning’ and planning processes to develop Toronto’s new official plan [...] This vision, which continues to include nominally ‘progressive’ elements and a vocabulary of urban reform but is neoliberal and entrepreneurial in orientation and faces no strategic, broad-based opposition, threatens to fuse downtown gentrified lifestyles with neotraditional exurbia in a hegemonizing (if contradictory) neoconservative claim to the city and urbanism” (*ibid*, pg 229).

The competitive city is designed to attract new capital investment into the city which, as Leitner and Shepard (1998) note, is a zero sum game of inter-urban competitiveness.

Implementing neoliberalism requires both the political alliances of growth coalitions and local policies to create a competitive economic environment. These urban growth strategies are overwhelmingly entrepreneurial in nature and create a regime of urban governance vested in the notion of limitless economic growth. These entrepreneurial governance practices – engaging in inter-urban competition, speculative public investment and placemaking efforts –serve as the manifestation of the larger neoliberal ideology at the national and global scale.

Urban Entrepreneurialism

Entrepreneurialism has a history in both the normative policy literature and critical urban political economy. Urban entrepreneurialism has been conceptualized, at its most simple framing, as a transition from urban managerialism, whereby the state provides essential public infrastructure and services, to a growth-centric practices vested in attracting private investment and resources as a means to meet the infrastructural and public service needs of the city. As a form of urban governance entrepreneurialism manifests itself as a co-ordination of the state and the market through public-private partnerships (PPP) and coalitions of policymakers (Jessop, 1997a). Governance, as Painter (1998) and Jessop (1997b) indicate, is the process of mediation between the politico-economic strategies of government regulation (i.e. the state) and the interests

of private industry (i.e. the market). The transition to urban entrepreneurialism is centered on the transition from policy of the welfare state to neoliberal ideologies of market competition.

Highlighting this transition, three key characteristics of entrepreneurialism are: first, policies designed to establish a competitive environment in the context of inter-urban competition; second risky speculative public investment to attract private capital; third, placemaking strategies that restructure the city.

Managerialism was the dominant approach to urban government in the 1960s, due in part to the urban funding provided to cities by the central state (Harvey, 1989). In the U.S. case, the federal government sought to address the ‘urban crisis’ of the 1960s by establishing funding programs to assist urban cores in maintaining public services and infrastructure. One example of early federal funding legislation is the *Federal Urban Renewal Act* of 1949 (Leitner, 1990). The mass reduction of federal funds began in 1972, when President Nixon proclaimed the end of the urban crisis and sought to absolve the federal government of the need to provide special funds for urban redevelopment (Harvey, 1989). While fully articulated neoliberal federal policy began in the mid-1980s, the reduction of federal funds for urban service delivery dates to the 1970s. In what could be considered as an early manifestation of the neoliberalized era, urban governments implemented privatized service delivery, speculative public investment and competitive placemaking strategies in order to meet the budget shortfalls after federal funds had been reduced.

The reduction of federal funding to cities intensified in the 1980s, as the Reagan administration implemented an array of policies designed to reduce government spending and establish private alternatives. Many federally funded programs, such as the Urban Development Action Grant, began to require matching private funds for every federal dollar (Leitner, 1990). The official policy position of the US Department of Housing became one of entrepreneurial development, mandating that local and state authorities were responsible for creating an urban form and business climate that would attract private development (see US Department of Housing, 1982). Local entrepreneurial efforts emerged as the preferred vehicle for governing the city and for stimulating private economic development as an alternative to federal funding for urban centers.

The transition to a neoliberal funding policy at the federal level, which demanded localized and private economic development investment, required cities to look for new methods of securing funding for infrastructure and services. Cities began establishing quasi-governmental development agencies, public-private partnerships, development bonding schemes and impact fee schemes for new development (Leitner, 1990). The ultimate goal of this economic restructuring was to attract more jobs and a larger tax base, which required cities to compete for mobile capital

investment by utilizing public funds in the form of speculative development projects (Wood, 1998b; Leitner, 1990; Harvey, 1989).

The entrepreneurial shifts in policy serve to restructure the role of government in a Keynesian welfare state in favor of deregulation and speculative public investment. The restructuring of urban governance to an entrepreneurial mode, serves (1) to increase inter-urban competition for economic development, (2) increasingly to fund infrastructure with speculative public investment and (3) to establish placemaking strategies that seek to attract inward investment (Wood, 1998b; Painter, 1995; Harvey, 1989). The remainder of this section will focus on these three components of entrepreneurial governance: inter-urban competition, public speculative investment and placemaking.

Castells' (1978) theory of urban consumption-(re)production situates the provision and regulation of urban services as the primary role of the managerial urban state. According to Castells, the urban state seeks to manage the crises of overproduction and profit, while structuring the spaces of collective consumption. In contrast Harvey (1973) emphasizes the city as a space of capitalist accumulation, in which an understanding of the urban state is rooted in its role in ensuring the flow of investment into and through the city. Entrepreneurial governance is, in this respect, a rejection of collective consumption as a state function in favor of speculative public investment in property development (Hall and Hubbard, 1996; see Castell, 1978). Entrepreneurial governance facilitates the process of accumulation through the restructuring of state policies and practices alongside the privatization of the built environment. The provision of publically funded infrastructure is accomplished through the narrative of economic competition among cities.

Inter-Urban Competition

Harvey highlights four strategies through which urban interests seek to attract investment: (1) creating a competitive labor pool and business climate, (2) fostering urban consumption, (3) establishing the city as a command and control center and (4) competing for federal and state government subsidies and resources (Wood, 1996; Harvey, 1989). Harvey's first strategy is framed as exploiting the international division of labor in an effort to meet the needs of production. Wood (1998b) critiques this category, as rather too broad and diverse to be analytically useful. We might reframe this first strategy as one of creating a competitive advantage for commodity and service production, specifically establishing an arrangement of 'business friendly' public policies and investments designed to position the city within a broader

spatial division of labor. This strategy functions as a pull factor for development, enticing business investments with public subsidies and desirable workforce characteristics. Creating a desirable labor market, according to Harvey, involves a pool of skilled workers and reduced workers' rights. To this end, entrepreneurial policies involve training and education that supports and facilitates the needs of local industry – both current employers and those being courted as future investors. The second set of advantages noted by Harvey are the externalities associated with public subsidies and agglomeration effects. Agglomeration commonly enhances the skills and training of the workforce, while there are other beneficial extra-economic activities that also result from economic agglomeration. A second set of advantages are more political in nature. Tax incentives, publically funded infrastructure, industry specific deregulation and industry tailored public education all serve as externalities that can attract relocating industries.

The second of Harvey's four strategies involves fostering the consumption of urban spaces and services. Strategies here include urban development that focuses on tourism, gentrification, sports teams and entertainment districts. This strategy works in concert with the placemaking and place marketing elements of urban entrepreneurialism. Quality of life is commodified as amenity growth and urban identities are consumed by residents and visitors alike. These strategies are the core of the 'creative cities' ideas associated with Richard Florida (2005). As discussed below, placemaking and marketing is a process of creating an urban form and economy that can be consumed by residents, corporations and tourists.

The third strategy for gaining a competitive edge, is establishing the city as a command and control center. This category can include government centers, finance centers and media centers. Here there are specific modes of infrastructure required to make each of these command and control centers functional. Most apparent are transportation and communication infrastructures (Harvey, 1989). The resulting industry agglomerations produce spillover effects, such as support services, labor pools and educational centers that reap the benefits of locating in the proximity of a command and control center. Harvey notes that establishing a command and control center can be difficult as many 'world cities', such as New York, Los Angeles, London and Paris, have a quasi-monopoly as national and regional command and control centers (see Robinson, 2002).

Harvey's concept applies to a broad and diverse set of agglomerations located in large world city nodes. With well-established global command and control centers, most urban centers are competing over the specialized agglomeration of particular industrial sectors. The increasingly fragmented and specialized nature of the tertiary economy allows for industry specific agglomerations at a more localized scale. Rather than seeking to establish a command

and control center, current inter-urban competition commonly seeks regional agglomeration that are industry specific, such as biomedical hubs or technology centers. In an effort to attract particular agglomerations, local boosters modify urban form to meet the demands of new modes of production, modes of consumption and technological advancement. By offering financial incentives and restructuring the built environment, many cities are competing to become the premier agglomeration in specific industries in fields such as digital simulation and biomedical technologies. The ability to create or defend industry specific regional agglomerations is based on the effectiveness of local boosters to maintain a competitive business environment through public subsidies and placemaking strategies.

The fourth and final strategy articulated by Harvey is the securing of funds from national and state government to enable growth. Government funded projects, such as military, education and healthcare contracts serve as a redistribution of central government surpluses (Wood, 1998a; Harvey, 1989). Federally funded military installations, research centers and government contractors can serve to jumpstart the establishment of technology agglomerations. Examples of these federal subsidized clusters include military spending in San Diego, California, government aerospace contracts in Wichita, Kansas and Environmental Protection Agency (EPA) research centers in Research Triangle, North Carolina. It should be noted that, in accordance with subsequent neoliberal federal policies, many of these funds are distributed through the private sector with little-to-no funding going directly to municipalities.

As cities establish the pre-conditions to compete with other urban centers, they draw on the policies and practice employed by other regions. Through a process of entrepreneurial innovation, cities modify these policies and increase the escalating cycle of investment incentives. Framing innovation as the engine of entrepreneurialism, Jessop and Sum (2000) present three broad characteristics of entrepreneurial governance: (1) the utilization of innovative strategies to maintain and enhance economic competitiveness, (2) the explicit mention of entrepreneurial approaches and (3) employ a discourse centered on the entrepreneurial nature of the city. According to this approach, a city employs a set of strategies that will enhance its viability in inter-urban competition for economic development and that these strategies are highlighted in a narrative that extols the successful local entrepreneurs and the business friendly climate of the city.

These governance strategies rest upon Schumpeterian notions of entrepreneurialism and innovation. Schumpeterian entrepreneurship is defined as the “creation of opportunities for surplus profit through ‘new combinations’ or innovation” (Jessop and Sum, 2000, pg 2289). Schumpeter outlined five ways that capitalist innovation can occur: (1) new commodities, (2) new

means of production, (3) new markets, (4) new pools of resources, and (5) restructuring of an industry or sector (Jessop and Sum, 2000; also see Lim, 1990; Schumpeter, 1934). Schumpeter was addressing the production of commodities by private firms, rather than cities promoting a business environment for innovation. Jessop and Sum, however, extend ideas of innovation-centric entrepreneurialism to urban governance by extending the analysis beyond concrete commodities, to include ‘fictitious commodities’ and those politico-economic conditions of capital that are not monetized. ‘Fictitious commodities’, such as urban image and identity, and non-monetized conditions of capital, such as the (de)regulation of the urban economy, offer new opportunities for innovation in the context of urban entrepreneurialism. These can include new and creative local growth strategies that establish unique tax incentives, restructure urban form and enhance quality of life amenities through new technologies and infrastructures.

Roberts and Schein (1993) have suggested a similar means to explore the notions of ‘fictitious capital’ and non-monetized entrepreneurial conditions in relation to urban innovation. They examine the impact of entrepreneurial approaches on ‘urban change’, arguing that “the actual interplay of these two aspects of urban change – of imagery and substance, of fictitious capital and fixed capital – is a fundamental and characteristic dynamic of urban change in North America today” (pg 21). Fictitious capital is the manifestation of placemaking strategies and urban imaginaries as concrete economic development strategies. In the contemporary iteration of urban entrepreneurialism this is manifest as amenity growth and initiatives to establish a ‘creative city’. Amenities in the built environment, such as public transportation and public park space, become strategies to attract investment and establish a labor pool of creative young professionals. According to Richard Florida’s creative city concept, cultivating an image as a creative and trendy urban center is the prerequisite to attracting young, skilled labor. By investing in an innovative urban image and creating a cohesive civic identity – through either material urban amenities or a rhetorical reputation as creative city – cities mobilize reputation into a concrete incentive for inward investment.

Perhaps the best examination of non-monetized entrepreneurial conditions, can be seen in Painter’s work on the conditions required for creating the politico-economic market for entrepreneurial governance. Tracing the socio-political production of local governance strategies, Painter (1998) outlines the pre-conditions for entrepreneurialism in the British context, although it is clear these conditions broadly exist in the North American case. Exploring and expanding on these notions, Painter’s five pre-conditions are:

Labor Markets:

The (de)regulation of labor markets is established to reduce the ‘barriers to competition’, such as reducing or eliminating wage-setting practices and collective bargaining rights.

Education and Training:

Education is conflated with workforce training, focusing on the need to develop a pool of laborers with a specific skill set. Systems of education are designed to meet the demands of local employers. This is actualized as both a public discourse and a policy shift in local educational curriculum.

Industrial policy:

The establishment of a range of public investment mechanisms to attract corporate investment into the city, such as tax incentives, relaxing planning constraints and industrial site selection schemes. Small business loans and start up support for local companies are also put in place to foster up and coming companies and industries. These policies are coupled with a strong discourse of economic competitiveness.

Social Policy:

Social institutions employ a discourse on the need for personal responsibility; a moral argument for becoming an entrepreneurial actor and to reduce dependency on government services thereby relieving the tax burden on private entities. This serves to delegitimize social welfare services, such as healthcare and unemployment benefit. Transitioning to an entrepreneurial actor becomes a civic duty, thereby reducing the fiscal burden on the state to provide services along with the tax burden on private industry. This discourse serves to marginalize and disenfranchise those in need of social services.

Disciplining Actors:

A wide range of urban actors must be actively disciplined to adapt to their role in a regime of entrepreneurial governance. Drawing on the Foucadian notion of governmentality, social actors of all classes must be trained to ‘be entrepreneurial’ through education curriculum, discourse and active state policies.

These pre-conditions for entrepreneurialism are a mix of actionable policy and cultivated public discourse that work to legitimate and enact the privatization of services and speculative investment of public funds; what Jessop and Sum (2000) call the extra-economic conditions of entrepreneurial innovation by cities. These conditions of entrepreneurialism are socially reproduced and intensified in ever more mature iterations of urban entrepreneurial policy and discourse. Notions of entrepreneurial governance and the role of entrepreneurial actors are reproduced through various forms of policy, including education curriculum, private consulting, trade magazines and benchmarking practices (see Evans, 2004; Stone, 2004; Larner, 2003; 1999; Olds, 2001; Dolowitz and Marsh, 2000; Painter, 1998).

Once a culture of entrepreneurialism is established, the inequality and socio-economic consequences of welfare reduction and socio-spatial marginalization are obscured. The lack of welfare services and the reduction of public proveniences literally become the ‘price of doing business’ and are established as self-referential necessities for economic development. In similar

fashion to Keil's (2009) notion of 'roll-with-it' neoliberalism, entrepreneurialism prescribes economic development according its own internal logic and validates success with internally coherent metrics. The need to reproduce this locally modified internal logic leads to the establishment of place-based governance coalitions that work to maintain a structured coherence of urban class relations (Wood, 1998a; Harvey, 1985). The conflation of city government with private firms reifies a neoliberal understanding that ignores the role of the state as a provider of public services in favor of speculative economic development. This, in turn, leads to socio-economic inequalities and reinforces a structure of class relations that privileges a specific group of urban boosters.

Speculative Public Investment

City leaders have long been advocates for economic development as a means of creating jobs and generating tax revenue. The underpinning motives, often obscured in public discourse, are the goals of local politicians to be re-elected and local boosters to secure new sources of revenue. Urban boosters have historically used tax incentives and shared social networks to entice private industry and government sector jobs to (re)locate in a specific city. More explicitly entrepreneurial approaches require cities to speculatively invest through public subsidies designed to attract private investment. Cities are now expected to make risky investments to facilitate economic growth, such as publically financing development projects or establishing investment ready sites. These risks are commonly veiled to the public, with assurances that the work of public-private partnerships will yield a stronger urban economy for the public good.

An entrepreneurial approach to urban governance is associated with new criteria by which to evaluate competing development projects funded with public money. As a result, attempts to evaluate public works projects and service delivery programs are established based not on the actual service directly provided to the urban public writ large, but rather evaluated on the return on investment (ROI) provided by the project (Chapin, 2002). Often obscured by inflated numbers, stemming from predicted tax revenues that fail to account for initial public investment, closed system impact fees that return funds directly back into commercial development projects and the use of generous economic multipliers in the final economic impact statement, the ROI evaluation system privileges private sector commercial growth over public use value (Brock and Crick, 2013). The emphasis on ROI reflects the transition of governmental agencies from their mission of providing public service to the bottom-line driven goals that reflect private corporate business models (Chapin, 2002; Painter, 1998). Public agencies began to

embrace, “risk-taking, inventiveness, promotion and profit motivation” as part of the shift to the entrepreneurial model (Hall and Hubbard, 1996, pg 153).

Following the principles of Richard Florida’s (2005) ‘creative city’ approach, ‘creative growth’ relies on state of the art infrastructure and urban amenities to entice young professionals and establish an educated labor pool to attract investment. Public-private partnerships are established to cultivate these amenities through projects such as downtown revitalization programs, entertainment districts and business improvement districts (MacLeod, 2011; Cook, 2008). Perhaps the most readily apparent material manifestation of entrepreneurial governance can be seen in the urban landscape, as the built environment is being designed to meet the needs of inward investing firms. Entrepreneurial approaches mandate that infrastructure design, service delivery and consumption of public space serve to subsidize private sector needs with public funds.

A product of entrepreneurial placemaking, the need to cultivate a business friendly urban form requires a pro-growth planning regime and the (de)regulatory mechanisms to fund these projects. A transition to entrepreneurial urban governance is highlighted by the incorporation, management and regulation of private investment as a core principle of public policy (see Cochran, 1995; McGuirk et al, 1998). As a mechanism of entrepreneurial governance, local coalitions are tasked with creating a business friendly climate, where public funds are used to establish the socio-political and infrastructural conditions deemed necessary to attract new investment (Cox, 1993). Through the creation of investment-ready sites, local boosters can redevelop the urban form to accommodate the perceived needs of private industries. Chapin (2002) argues that more recent iterations of entrepreneurial governance are taking an ever more aggressive approach and are beginning to function as fully privatize ‘capitalist actors’. Calling this ‘municipal capitalism’, Chapin specifically examines change in the approaches to downtown redevelopment projects. Previous approaches to entrepreneurial style downtown redevelopment called for the city to act as a facilitator of development, exemplified by public investment in risky redevelopment projects through the use of speculative revenue bonds and tax increment financing. Packaged as public-private partnerships or quasi-public development agencies, this approach to entrepreneurial redevelopment allows public funds to subsidize profits in the private sector, while the public sector is expected to bare the risk. The expectation is that the overall economic growth, spurred by speculative public investment, will indirectly benefit the public sector through increased tax revenues and job creation.

However, Chapin (2002) makes the case for a new mode of intensified urban entrepreneurialism, whereby public sector actors become ‘active capitalists’. Beyond the

traditional model of redevelopment, where the public sector facilitates the procurement of land and provides financing through general obligation bonds, municipal actors are now engaged through the entire life-cycle of the project. As illustrated through the case study of a San Diego stadium redevelopment project, some cities now demand projects that will provide upfront returns on public investment. To ensure these public profits, San Diego was involved in planning redevelopment districts adjacent to a publicly funded stadium and several public parking facilities and required private investment to simultaneously redevelop the remainder of the new entertainment district. Specifically the city sought a specific number of hotels, as the primary public revenue source from the project took the form of hotel luxury taxes. According to Chapin (2002), the what differentiates this project from more passive entrepreneurial approaches is that this project was not negotiated and planned through a quasi-public development agency. The project was financed, negotiated, planned and implemented directly by San Diego municipal government; a fully public entity. Rather than relying on an inflated forecast of indirect economic growth, San Diego's engagement as a full capitalist actor allowed it so secure the same tangible and direct revenue streams as a private firm investing in the redevelopment project.

While this one case study does not suffice to establish a new form on urban governance, it does point to the increasingly free-market nature of urban governance, whereby public entities are expected to invest in a fashion comparable to private firms. Establishing market-based criteria for publicly funded projects, and more specifically securing a definitive return on public investment, has become a more common framing in public policy discourse. Clarke and Gaile (1998) note the use of free market criteria over socio-political criteria as a means of selecting projects to receive public funds. This becomes problematic when the ability to generate a higher return on public investment supersedes the city's responsibility to provide public services for urban residents. Often public private partnerships do the work of masking these types of entrepreneurial policies, as the roles and involvement of actors become confused and conflated in complex arrangements of private firms, public entities and quasi-public development agencies (Fainstein, 2010; 1992; Bradford, 1983).

Local economic development strategies focus on cost-benefit analysis and return on investment as the means by which decisions on public spending are reached. By focusing on cost-benefit analysis and return on investment metrics, governance is condensed into a singular economic rationality by which to set public policy (Painter, 1998). Eschewing essential infrastructure and welfare services in favor of public private partnerships that have the greatest potential for ROI, the process requires a governance coalition to create and market a narrative to

justify public spending on projects that subsidize the private sector and have a better chance at generating revenue.

Placemaking and Marketing an Urban Imaginary

Entrepreneurial governance relies on the ability of local officials and urban boosters to re-imagine and re-create spaces of the city; to create an urban imaginary that attracts investment into the region. Hall (1998) notes the distinction between selling the city and marketing the city as the difference between advertising a place and re-creating a place. Selling the city presents the desirable qualities to potential investors; advertising the state of the city. Placemaking, however, is at the heart of marketing a city. Marketing the city demands that the city is restructured to meet the real and perceived needs of potential investors. Urban marketing is a process whereby the urban is re-created to meet investors' needs and the city's advantages are sold as requisite urban conditions for economic growth. The marketing of the urban requires a narrative by which local elites work to turn the city into a corporate commodity; making the urban consumable for private firms looking to capitalize on their investment in the region. This narrative – an urban imaginary – works to project a business friendly image of the city highlighting the economic advantages and quality of life the city offers.

The practice of place marketing in North America has existed since the first European colonizers sought settlers to repopulate the continent (Ward, 1998). Early attempts at North American placemaking, however, sought cheap labor to work the land and populate the factories in an effort to accumulate wealth for the developed core. Rather than cheap unskilled labor, contemporary post-industrial placemaking efforts commonly target young educated labor, mobile private investment and relocating firms. Cities (re)present themselves in hopes of repositioning themselves in the new economy by attracting mobile capital to the region (Short and Kim, 1998). Local elites work to create competitive advantages by establishing economic governance organizations (EGOs) that work to cultivate an urban image to attract inward investment by securing local projects that meet the perceived needs of potential investors.

Short and Kim (1998) studied the messages most often projected in media campaigns designed to market cities. They found that the two most prominent messages presented were the economic benefits of the city and the city's quality of life. These types of urban imaginaries are socio-politically constructed narratives designed by local elites and EGOs to foster a specific type of economic development. Entrepreneurial imaginaries are also designed to conceal spaces of contestation, as urban space is presented in the form of a monolithic urban culture that centers on

economic development and middle class amenities. Booster organizations and governance coalitions work to re-shape the city in an effort to reproduce the urban imaginary being presented by creating urban spaces for consumption by corporate investment, amenities to attract young skilled labor, policies that create a pro-business environment and budgets that use public money to fund the needs of private investment.

One component of making the city consumable is creating an urban identity, which can be manifest through creating civic pride. Civic identities that are constructed around narratives of economic growth reproduce the notion that economic development is not only positive for the city and its citizens, but also a symbol of urban pride which should rally the community (Roberts and Schein, 1993; Logan and Molotch, 1987). While early iterations of growth coalitions and traditional boosterism were negotiated as back-room, insider political deals, current booster strategies have a very public component of placemaking, as civic institutions and organizations situate the city within the global hierarchy of economic competition (Deas and Ward, 2000). Conceptualized as a public-private partnership, the ‘local community’ is disciplined by local business interests, politicians and local media to act as a voice for economic development.

Spatial Fixes and the Attraction of Mobile Capital

In the context of urban entrepreneurialism, the provision and placement of transportation infrastructure embeds one set of socio-spatial pre-conditions for attracting mobile capital investment and regulating the spaces of urban mobility. Spatial fixes, as framed by regulation theory, are temporary solutions to address specific crisis tendencies in capitalism facilitated through spatial restructuring (Harvey, 2001). Harvey focuses on two versions of the spatial fix: (1) the literal fix and (2) the metaphorical fix. The literal spatial fix is the material reorganization of capital, such as infrastructure investment and restructuring the built environment. Jessop (2006, pg. 147) explores Harvey’s notion of spatial fixity, noting “the general need for long-term investment in fixed immobile capital to facilitate the mobility of other capital and [...] how such investments affect locational dynamics.” Spatial fixity, while appearing to exhibit longevity, is perpetually destroyed and reconstructed to maximize accumulation, adapt to new technological innovations in infrastructure, and to respond to new crises (Jessop, 2006; Harvey, 2001). Long term investment in transportation infrastructure tends to reify a specific mode of mobility and reaffirms a temporal commitment to a specific mode of economic development. Investment in transportation infrastructure fixes a spatial arrangement that works to reshape the urban form and represent a long-term investment in the current mode of economic development (Graham and

Marvin, 2001). These literal fixes restructure the network of urban infrastructure and facilitate a new geography of place and connectivity (Swyngedouw, 1993).

However, the restructuring of material infrastructure and spaces of connectivity “require complex regulatory articulations between markets, national and local states and, increasingly, transnational bodies” (Graham and Marvin, 2001, pg. 12). These regulatory mechanisms – Harvey’s metaphorical fix – are negotiated, contested and restructured through the state (Brenner et al, 2009; Lorrain and Stoker, 1997). This process establishes an entire socio-political restructuring strategy, whereby the regulatory policies are restructured to maintain or enhance modes of accumulation. The spatial fixity of long term infrastructure investment provides the striated spaces for the flow of capital, establishing the spatial logic for the flow of commodities, raw materials, labor and consumers. Lacking the flexibility to rapidly restructure, fixed public investment is a long term commitment to a specific economic mode of production and consumption. Situated in broader politico-economic dynamics, spatial restructuring of the urban form accommodates new spaces for accumulation, but must be negotiated through mechanisms of governance (Brenner et al, 2009; Lorrain and Stoker, 1997).

The spatial restructuring of cities under a logic of urban entrepreneurialism creates new narratives of urban competition, as proponents claim an overall economic gain. Normative policy approaches situate each city as having the potential to be successful in inter-urban competition and, in a quintessential neoliberal argument, that competition among cities would generate economic benefits for the greater economy. Leitner and Sheppard (1998) point to a number of unsustainable assumptions in the logic of urban entrepreneurial competitiveness. They note that this logic assumes that inter-urban competition exists on a level playing field and that cities are interchangeable with firms. By discounting the historical hierarchy of cities, proponents of entrepreneurial governance claim that competitiveness among cities leads to an ‘all boats rise’ scenario (see Chapin, 2002). This contrasts with the zero-sum game view associated with a number of scholars (see Leitner and Sheppard, 1998). As mobile capital circulates among cities, firms foster increased inter-urban competition as a means of securing public investment to meet the infrastructure needs of their private ventures. Cities scramble for more investment by establishing funding and infrastructure packages to meet the needs of these industries. Four resulting outcomes are:

(1) The creation of a system of ephemeral advantages

Providing fixed infrastructure with public funds allows private firms with mobile capital to remain mobile. If the private sector has made only nominal investments in fixed infrastructure, the threat of losing large capital investments should the firm relocate is removed. With little financial loss associated with moving, mobile private capital is

incentivized to seek more lucrative locations. These alternatives commonly involve publically funded advantages for the firm, such as more advanced infrastructure and/or a better financial package of incentives. As this private investment circulates, it takes the jobs and tax base with it. The advantage for the city can be short lived but the burden of long term financing and maintaining the infrastructure remains.

(2) Public funds assume the financial risks of fixity

By embedding infrastructure, the urban region makes a spatio-temporal commitment to specific modes of production and consumption. If this investment is guided by entrepreneurial strategies in an effort to establish an investment ready site or to create conditions of amenity growth, then the public assumes the risk associated with this infrastructural investment. What some commentators have framed as a zero-sum game among cities, is actually a losing proposition for nearly every public entity involved. Rather than a simple shift in jobs and revenue among cities, public debt mounts as cities are discarded by private investment.

(3) Disparity between mobility of the private sector and local dependence of the public sector

As private investment circulates from one city to another, private investment becomes more mobile. Following from the first two processes, removing the burden of investing in fixed infrastructure enables firms to relocate relatively cheaply in their search of better public subsidies, newer infrastructure, or cheaper labor pools. The local public sector must then manage the infrastructure left by departing capital. The benefits of highly mobile capital moving among competing cities are accrued by private firms that exploit this competition and extort lucrative public concessions.

(4) Exploiting the geographic division of labor

The circulation of private capital is used to exploit the spatio-political situatedness of labor, as capital flows to low-wage labor pools with limited labor rights. Creating a metaphorical spatial fix, regions restructure policies to reduce labor rights to compete with regions with more conservative and exploitative labor practices. Accordingly, this results in the eroding of labor rights across the board.

The fragmentation of labor rights, highly mobile capital and the ephemeral spaces of public subsidy establish inter-urban mobility as a means of restructuring labor. The demand for creative cities and a young professional workforce displaces a more sedentary, experienced workforce. The immobile workforce can be anchored by their inability to afford the personal mobility of relocation, their investment in property and localized social relationships. The skilled, middle management white collar worker can be tethered to a location by owning a house and having local familial relationships. Less skilled blue collar workers, unlikely to be offered a job during relocation, are displaced for a new lower-wage workforce in the next city. Framed in this manner, we can see that ‘creative city’ models that seek young professionals work to establish a regime of disposable labor. By replacing more experienced employees with younger employees, private firms can save labor costs. This is intersection between more mobile private investment

and more fixed speculative public investment in the spatio-economic restructuring scheme of inter-urban competition and local growth strategies.

Conclusion

Employing the concepts of urban entrepreneurialism and the neoliberal city, this chapter has highlighted the political economy framework for understanding the relationship between urban entrepreneurial governance and national neoliberal policy. Exploring the relationship between capital mobility and the urban form, the discussion has highlighted the process of urban spatial restructuring as an approach to local economic development. As mobile capital circulates among cities, firms foster increased inter-urban competition as a means of securing public investment to meet their infrastructure needs. As cities seek new investment they establish funding and infrastructure schemes to meet the needs of private inward investment.

The changing role of urban boosters in this process will be highlighted in the next chapter. The history of economic development in Orlando and Central Florida illuminates the process by which Central Florida booster have used urban infrastructure as a means to stimulate economic growth in the region. In the case of Orlando, this growth has come in waves, as the region transitions from agriculture, defense and aerospace industry, entertainment tourism and medical tourism. These waves of development are all contingent on the restructuring of the built environment to attract new types of investment into the region.

Chapter Three

ORLANDO'S 'MOVERS AND SHAKERS': THE POLITICS OF LOCAL ECONOMIC DEVELOPMENT AND TRANSPORTATION

In the early twentieth century, Central Florida was a region noted for sleepy citrus groves and little manufacturing; a boom-bust agricultural town that was at the mercy of the citrus crop. Today, the Orlando region is known for its massive tourism industry, with millions of families filtering through the large agglomeration of theme parks in the Kissimmee-Buena Vista area southwest of downtown. With approximately 51 million visitors coming to the area every year, Central Florida is one of the largest tourist destinations in the country. Perhaps less apparent is the thriving aerospace engineering and defense technology research industry that was established prior to the arrival of the theme parks. Currently, there is a new biomedical research and health care service industry beginning to emerge in the Orlando economy. This new biomedical sector, billed as medical tourism, seeks to couple the existing infrastructure for short term theme park visitors with the emerging biomedical technology research and healthcare service cluster in Orlando.

The Central Florida economy has gone through four periods of economic development; each wave adding a new sector to the economy without eradicating what came before. The four waves of economic development are: agriculture, aerospace engineering, entertainment tourism and medical tourism (Table 2.1).

Table 2: Waves of Orlando Economy

Medical Tourism							
Entertainment Tourism							
Aerospace Engineering							
Agriculture							
	1900	1920	1940	1960	1980	2000	2020

While defense firms and tourism directly fueled Orlando's economic growth, it was local elites who – quite literally– paved the way for urban growth. In the 1950s and 1960s, Orlando elites, known locally as the 'movers and shakers', began working to ensure Orlando would have a road infrastructure that would open the door for economic development. As Richard Foglesong writes, "The story begins with roads, for it was through roadbuilding that visionary local elites worked to put Orlando on the map, to link it commercially with the rest of Florida, the Southeast, and the nation if not the world" (2001; pg 13). These local elites sought to entice high-wage manufacturing jobs; 'clean industries' with minimal environmental impacts. These local power

brokers worked to secure Orlando's connectivity to Interstate- 4 and the Florida Turnpike in hope that being directly plugged into the national transportation network would catch the eye of manufacturing firms. Instead, the intersection of I-4 and the Florida Turnpike caught the attention of Walt Disney, who decided to put his second theme park just southwest of Orlando. While the low-paying service sector jobs that would follow were not what the 'movers and shakers' had intended when they secured these crossroads, the idea of having a new Disney theme park to the west of Orlando was something that local boosters felt they had to embrace (*ibid*).

These new economic sectors began to change the form of the city beyond the expanding transportation network. As the theme park industry grew in the west and aerospace technology enclave in the east, Orlando became a multi-nucleated city fragmented by industry. On the southwestern edge of Orange County and the northwestern edge of Osceola County, the entertainment tourism industry flourished with the establishment of Walt Disney World, SeaWorld, Universal Studios, the Orlando-Orange County Convention Center and the International Drive entertainment district. Many of these attractions employ low-wage service workers but fail to provide the necessary social services and infrastructure for this workforce. To the east of downtown Orlando, the economic growth was more lucrative. Beginning as an enclave of defense and aerospace contractors to service, what is now, the Kennedy Space Center, the southeast side of the city has many high paying white collar jobs. Serving as a technology research and manufacturing center for the region, the University of Central Florida and Lockheed-Martin have historically anchored the growth of this high-tech sector.

In this chapter, I examine the historically contingent nature of these waves of economic development and the role of urban boosters in establishing them. Specifically, I highlight the changing urban governance strategies employed to foster economic growth in the region focusing particular attention on transportation infrastructure and speculative public investment to attract new industries. The chapter ends with an examination of the entrepreneurial booster organizations that direct economic growth and regional planning. Coalitions of private business interests are now creating economic governance organizations, which serve as regional governance bodies that direct speculative public investment into regional growth initiatives

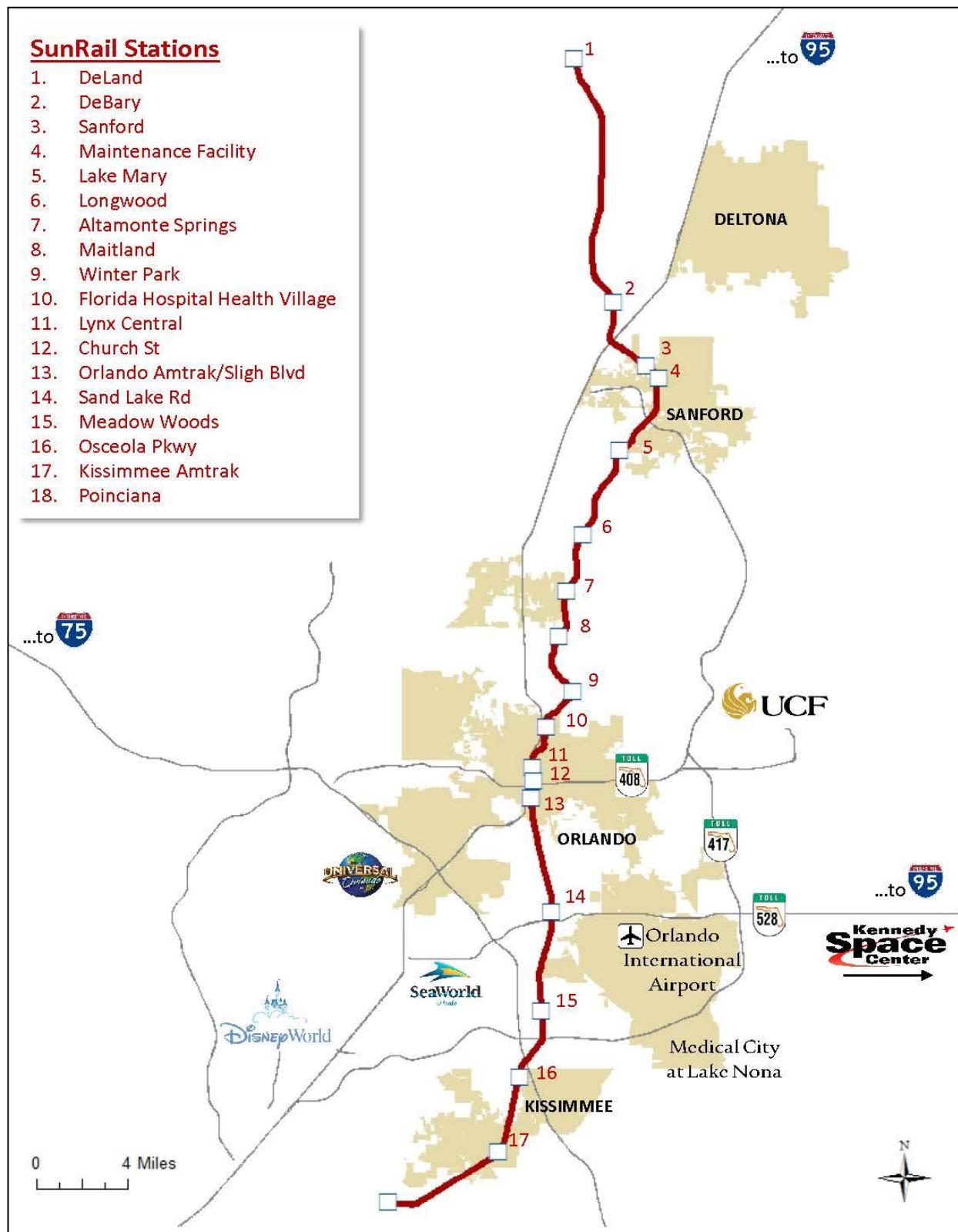


Figure 1: SunRail Commutershed with Orlando Economic Centers

Orlando's Economic Growth: From the Agricultural Economy and the Post-War Boom

Prior to World War II, the Central Florida economy was rooted in the agricultural industry. This primary economy served the region well, as early cattle ranchers settled the region and the citrus industry began to boom in the 1880s. Citrus agriculture thrived in the warm subtropical climate, although the need to diversify the local economy became apparent after the citrus freeze in 1894. It took 15 years for the region to bounce back from the three day freeze that started a regional economic depression (Robinson and Andrews, 1995). This event highlighted the imperative of attracting manufacturing industry to the region. However, low population, geographic isolation and poor transportation connectivity to large urban centers inhibited industrial manufacturing from coming to the region. Poorly drained swamp land and a plethora of mosquitoes only added to the deterrents of demography and connectivity, keeping industrial development out of reach. Orlando's population began to spike in the mid-twentieth century however, jumping from a 1920 citrus town of 10,000 to an up and coming city of over 50,000 people in 1950. The region expanded with the city, as Orange County grew from almost 20,000 residents in 1920 to over a quarter of a million residents by 1960.

Table 3: The Population of Orange County, Florida

(US Census Bureau Data and Florida Population Studies, Volume 46, Bulletin 165, March 2013)

Date	Orange County Population
1920	19,890
1940	70,074
1960	263,540
1980	470,865
2000	896,344
2020	1,371,988

Despite its rapid population increase, job growth and accompanying urban sprawl, Central Florida has been able to maintain a profitable agricultural industry. One of the largest cattle ranches in the United States is located east of Orlando. The Deseret Ranch is a 450 square mile cattle ranch that moves over 44,000 head of cattle a year (Deseret, 2013; Hollenhorst, 2011). Located in Orange, Osceola and Brevard counties, the Deseret is privately owned by The Church of Jesus Christ of Latter-day Saints (Hollenhorst, 2011). In addition to cattle production, the property has citrus agriculture, sod and forestry resource production and mines underground seashells for local road base and asphalt production (Deseret, 2013). This farm has largely curbed urban sprawl from the eastern edge of Orlando to the Kennedy Space Center and has been an important stakeholder in water resource management and Central Florida growth issues (Research

Interview: 19). While this ranch is the largest remaining remnant of Orlando's pre-war cattle and citrus industry, it is far less visible than the region's thriving aerospace industry and theme-park tourism.

The rapid postwar growth of the Central Florida region required a change to the way residents and visitors navigated the city. Local roads and rural highways were filled with military personal, engineering researchers, college students and families on holiday. The postwar expressway boom was anchored by the new Cape Canaveral space and missile programs to the east, the accompanying defense contract firms in Orlando proper, and Walt Disney World to the southwest (Shofner, 2001). This development required an expansion of the region's road infrastructure, especially along east-west routes. At the time, most of the major highways in the region were oriented north-south along the coasts and were not designed to accommodate a flood of visitors to Orlando. In order to meet the growth demands of the region and facilitate increased development, the City of Orlando and Orange County asked the state legislature to establish the Orlando-Orange County Express Authority (OOCEA). In 1963, the expressway authority was established to create a toll road between the missile center in Brevard County and Orlando. With increased population growth and economic development, the expressway authority's charge was expanded in 1966. The OOCEA was charged with designing and maintaining a road system that would both accommodate the current capacity and facilitate future growth in the region (*OOCEA, SR408 History*, 2011). By 1970, the city had grown to almost 100,000 residents; Orange County's population to over 344,000 and the Orlando MSA exceeded half a million. By early 2000, Orlando had become the nation's sixth fastest growing region, largely based on the number of jobs attracted from other regions of the country (Foglesong, 2001).

The Road to a Military-Industrial Economy

In 1955, the federal government designated Cape Canaveral, located on the east coast of Brevard County, as the official site for the US Missile Test Center and Annex (McCollough, 2001). Realizing that the emerging defense industry would require an agglomeration of defense manufacturing and research firms, Orlando elites worked to entice these companies to locate 40 miles west of the new missile center. The following year, the defense firm Glenn Martin Company, precursor to Martin-Marietta and Lockheed Martin, located a missile research and production facility south of Orlando. Linton Allen, local booster and First National Bank president, personally optioned the 6,400 acres of land, as other boosters secured state approval for two new access roads to the site and established a special sewage district exclusively to meet the

plant's needs (Powers, 1984). This process took a mere 22 days and helped ensure that Orlando would be home to the coming onslaught of aerospace firms in the region. The postwar years saw aerospace firms and technology firms such as Boyle Engineering Corporation (1962; now part of AECOM) and IBM (1957) become established in Orange County (Hood and Bachmann, 1997). The land boom that followed the defense contractors quickly turned Orlando and Winter Park into bedroom communities for the missile center. In 1962, the north side of the missile center was expanded to include large tracts of land on Merritt Island, which were designated the Launch Operations Center for National Aeronautics and Space Administration (NASA). At that time, the region was isolated enough to allow rocket testing for the budding US space program without the danger of large adjacent population centers (NASA, Kennedy Space Center History, 1991).

In an effort to facilitate the research needs of NASA and the accompanying aerospace firms, the Florida state legislature and state board of regents chartered the Florida Technological University in 1963 on a remote parcel of farm land to the east of downtown Orlando (Laws of Florida, 1963). Initially the state board of regents was skeptical about chartering a new school in Orlando, despite the assertions by local boosters that a research university would be required to sustain the growth of Central Florida's new aerospace industry. Once the state agreed in principle to the establishment of a state university in Orlando, the legislature required that Orlando-Orange County provide land for the university prior to being granted planning funds and state approvals. Ten local boosters, led by Orlando attorney and regional powerbroker Bill Dial, each contributed \$10,000 to purchasing the land for a new university (Foglesong, 2001; Sheinkopf and Millican, 1976).

The initial parcel of land was so remote that the university's first president, Charles Millican, was unable to find the site on his first visit to inspect the new property (Patel, 2010; Sheinkopf and Millican, 1976). The university held its first class in 1968, with a primary mission to provide research facilities and well trained staff to support the Kennedy Space Center and the local aerospace industry. The state legislature changed the name of the institution to the University of Central Florida (UCF) in 1978 (UCF, 2012; Patel, 2010). In 1989, UCF was awarded one of the nation's first Space Grant institutional designations and now leads the Florida Space Grant Consortium, which includes 17 universities in the state of Florida (NASA Website, Florida Space Grant Consortium, 2012). The stated goal of the UCF lead consortium is "promoting statewide aerospace economic and academic development" (*ibid*). The consortium established the Florida Space Institute, whose mission mirrors the initial goals of UCF. The institute works to provide research capacity and support staff to facilitate the public and private spaceflight industry in Florida.

Orlando's relationship with the military industrial complex goes beyond the US space program. The region also had the Naval Training Center (NTC) and McCoy Air Force Base, which have had an impact on the local economy and transportation infrastructure. In 1968, the Naval Training Center was opened on the site of a decommissioned World War II Army Airfield (Smith, 2012; OOCEA Website, 2011). The recruit training command site, or boot camp installation, was the result of a political relationship between a local Orlando booster and Lyndon Baines Johnson. Martin Anderson, the publisher of the *Orlando Sentinel* newspaper at the time, had friends in Johnson's first presidential campaign. Anderson used the newspaper to support the Johnson presidential campaign in 1956 and 1964 (Foglesong, 2001). In 1964, Johnson made a campaign stop in Florida and was treated to a motorcade and ticker-tape parade arranged by Anderson, at which time the Orlando publisher took the opportunity to ask the president for a military base in the region (Foglesong, 2001; Johnson, 1964). Once Johnson won the election, he rewarded Anderson's support by establishing the Naval Training Center (NTC) to replace the abandoned army-airfield (Foglesong, 2001).

In 1969, the City of Orlando acquired the rights to allow commercial aircraft to land at McCoy Air Force Base. The twenty year lease, which was acquired for one dollar, allowed commercial flights to land on one of the two military runways. While military flights still utilized the airfield, the addition of civilian aircraft provided the city with a new mode of transportation infrastructure and a new revenue source. The lease allowed the city to collect all commercial landing fees for civilian aircraft. In 1974, the military base officially closed and sold the property to the City of Orlando, again for a dollar (Foglesong, 2001). As a condition of the transfer agreement, the military retained rights to 840 acres of housing and personnel support infrastructure that were originally part of McCoy AFB. These personnel support facilities, dubbed the NTC-McCoy Annex, became part of the Naval Training Center (City of Orlando, 2005). While the NTC gained more housing facilities, the city of Orlando was in the process of converting the newly acquired McCoy airfield into Orlando International Airport, a fully commercialized civilian airport.

The Naval Training Center remained a part of the Orlando landscape until it was decommissioned as a result of post-Cold War military base closures in the 1990s. Under the auspices of the Federal Base Realignment and Closure Commission, the Naval Training Center was formally decommissioned in 1996 (DOD, 1996). The city drafted a base reuse plan, which outlined the way in which the area should be redeveloped. In 1999 the city of Orlando purchased the land from the Navy and within minutes had resold the land to a consortium of private developers called the Baldwin Park Development Company. The consortium consisted of the

development firms of: Mesirow Stein Real Estate, Inc., Carter & Associates, Atlantic Gulf Communities Corp., David Weekley Homes and Morrison Homes. They were joined by the design firms of: Skidmore, Owings & Merrill LLP, Cooper Carry and Miller-Sellen & Associates, Inc. (City of Orlando, 2005). The Navy received seventy five percent of the purchase price paid by the Baldwin Park Development Company and an additional \$1.2 million from the City of Orlando (*ibid*). Baldwin Park was designed to be a master planned ‘mixed-use’ development that would fit into the base reuse plan for the area – including providing ample public space and design principles that worked in concert with the surrounding natural environment. In an effort to acknowledge the need for low-income housing in the Orlando area, the development group was required to pay a one-time lump sum of \$3.5 million to the local Homeless Provider Trust Fund (City of Orlando, 2005). Baldwin Park was lauded as a redevelopment site, winning the 2006 Phoenix Award for ‘outstanding achievement of excellence’ in brownfield redevelopment and a 2008 Florida Realtors Association Envy Award (EPA, 2009). In addition to Baldwin Park proper, the development area ultimately housed the Audubon Park neighborhood, Fashion Square Mall, and a new small executive airport.

This brief history of the defense and aerospace industry in eastern Orlando highlights the transition to a more entrepreneurial approach, most notably through the increase of public speculative investment. Boosters in the 1950s and 1960s optioned land to entice a new defense industry and public university using private money, calling in political favors to get the requisite state permits for each endeavor. As late as 1974, the city was using public funds to purchase federal land to establish a public airport, which would allow the city to collect all airport revenues and landing fees. By the 1990s, however, the city of Orlando was purchasing federal land and turning it over to private developers as a speculative investment for future job and housing growth. Set in a broader context of neoliberal policy, local boosters now sought more than state sanctioned legitimacy. Private developers leveraged public funds to subsidize private development in exchange for a promise of more tax revenue through housing and job growth. This transition to urban entrepreneurial strategies goes well beyond the defense and aerospace industry, as the next wave of theme park agglomeration would require many public subsidies to accommodate the influx of tourists and low-wage service sector employees.

Entertainment Tourism and the Theme Park Agglomeration

As NASA was beginning to send astronauts from Central Florida to the moon, Orlando prepared to usher in a third wave of economic development. The entertainment-tourism industry

was about to take a giant leap forward. While Florida tourism existed prior to the Disney theme park, the establishment of Walt Disney World cemented the Orlando area as *the* destination for family vacations. Previously, tourism in Florida was focused on the coastal regions, as visitors would travel down the coastal highways stopping at a menagerie of zoos, monkey parks, and mom and pop roadside tourist attractions en route to the beach (Wenzel, 2012). The opening of Walt Disney World, in 1971, initiated the glut of theme parks that would cluster in southwestern Orange County and northwest Osceola County.

Walt Disney started scouting the Central Florida area in November, 1963 to search for a location for his newest theme park. Disney's plan to locate a larger version of his California theme park in Central Florida was influenced, in part, by the region's vast amount of cheap undeveloped land, warm climate and Orlando's transportation connectivity. Initially, Disney's second park was planned along the banks of the Mississippi River in St. Louis, Missouri. After a dispute with local boosters over the issue of selling alcohol in the park, the Disney team quickly moved on to research other potential locations (Foglesong, 2001). High on the list of new sites were Niagara Falls, New York, Baltimore, Maryland and Ocala, Florida. Walt Disney insisted on thoroughly inspecting each of the sites before committing to one, so he took his top advisors on a secret trip to scout each of these regions. Niagara was quickly eliminated due to its cold winter climate and Baltimore was eliminated due to high land prices and transportation congestion. Disney then set off to Tampa on a private jet to fly over the idyllic horse farms of Ocala. While Disney liked the site, he was concerned about the lack of transportation connectivity. The team continued to fly over the area until he spotted a site where the Florida Turnpike and Interstate-4 intersected. Knowing that these two roads connected with Interstates 75 and 95, Disney decided that these orange groves and swamp land would become home to his new theme park (*ibid*).

While Disney would jumpstart Orlando's entertainment tourism economy, it also established the service sector as basic to the local economy. Although Orlando boosters hoped that their recently established transportation connectivity would bring high-wage manufacturing jobs, most were more than happy to embrace the economic growth of a new Disney theme park on the east coast. A few boosters, however, expressed their concern with growing the local economy around low-wage service sector jobs. Tom Brownlee, the newly appointed director of the Orlando Chamber of Commerce, worried that the opening of Disney would make the economy too vested in tourism at the expense of attracting future manufacturing and heavy industry (Foglesong, 2001). Brownlee appointed a committee of local boosters tasked with creating a marketing plan to publicize Orlando to manufacturing firms. The committee chair was Buell Duncan, the vice president of First National Bank. Duncan used a three legged stool analog

to characterize the Orlando economy, arguing that agriculture and tourism were strong but manufacturing was weak (*ibid*). This plea went largely unheeded by local boosters and policymakers, as they undertook a classic growth machine approach. The dedication to growth would initially increase local property values for local boosters but would ultimately require the local governments of Orlando, Orange County and Osceola County to heavily subsidize urban sprawl.

Disney World was able to establish a charter as its own municipality and development district through the Florida Legislature as a condition of locating in Central Florida (Foglesong, 2001). This has provided the theme park with flexibility to transition from private company to quasi-public governmental entity. The product of this dual status includes: not having any obligation to provide public services or infrastructure for employees and tourists beyond park property; not having tax obligations to the City of Orlando; and the ability to obtain state funds and bonding authority through their development district charter (*ibid*). These practices allow Disney to create their own identity as public or private organization for their own benefit while burdening local governments with additional costs and little compensation.

The tourism based service sector economy in Orlando has become a low-wage job machine. Most theme park employees and the related ‘off property’ service sector workers are paid well below a livable wage. These fulltime service employees need low income housing, public transportation options and other social services from local government. The regional economy has become dependent on these low-wage jobs, but must spend significant sums on providing subsidized services for tourist and hospitality workers. The fiscal burden on local governments to provide infrastructure and services to accommodate this growth is not recouped by taxes from the entertainment tourism industries, which are heavily subsidized and often offered incentives from public coffers. Currently, Disney World has 61,000 employees in Orlando, the largest single site employer in the world, most of which are in low-wage service sector jobs (Kassab, October, 2009).

In comparison, the booming high-tech industry on the east side of Orlando has firms such as defense contractors, simulator developers and biotechnology firms, most of whom provide high paying jobs to the region. These industries are locally incentivized at a fraction of the rate of the tourism industry (Holstein, 2011; Foglesong, 2001). Local boosters have created a cycle of publicly incentivized, low-wage job growth in the Orlando theme park and entertainment tourism industry. To inject more specialized high-paying jobs into the Orlando economy, local government official and private boosters began working to court technology companies to locate

to the area. These efforts have yielded the current wave of biomedical research and simulation technology production.

Current Economic Growth: Medical Tourism, Biomedical Research and Simulation Technology

Biomedical research and health care is currently emerging as the fourth wave of economic development in Central Florida. Arguably an off shoot from the aerospace research infrastructure, the new medical research industry has dovetailed with the large agglomeration of science and technology research firms around the University of Central Florida and its adjacent research park. Local developers are working to establish a nationally recognized biomedical research center with a new research agglomeration and smart-growth development near the Orlando airport. The Medical City research center is anchored by the University of Central Florida (UCF) College of Medicine, UCF Burnett School of Biomedical Sciences, Sanford-Burnham Institute for Medical Research, Nemours Children's Hospital and the Orlando Veterans Administration Hospital (Medical City, City of Orlando, 2010). The development of biomedical technology and medical tourism is expected to become the epicenter for Orlando's next economic boom.

In much the same manner that the aerospace and entertainment tourism industry facilitated an expansion and restructuring of transportation in Central Florida, the dawn of the medical tourism industry is changing the way local planners, politicians and developers conceptualize transportation infrastructure for the region. Conceived as an integrated transportation system that would connect the large biomedical technology and healthcare enclaves around the city, local boosters draw direct links between improved transportation infrastructure, such as SunRail, and biomedical growth. The Central Florida region is already home to 150 biotechnology firms and two large healthcare systems – Florida Hospital and Orlando Health (Medical City, City of Orlando, 2010). Many policymakers and economic development organizations are already branding the Medical City development as the flagship center of Orlando's newly emerging 'medical tourism' industry. The public funding, political support and high expectations of this emerging economic sector form the basis of the next section of the Chapter.

Public Subsidies and Technology Agglomerations

In similar fashion to early Orlando boosters who sought environmentally clean manufacturing industries that would bring high-wage jobs, contemporary boosters have worked to bring green technology manufacturing to Central Florida. Currently, local boosters are seeking to attract new types of clean-green technology jobs – in the form of both manufacturing and research and design (R&D) facilities. In 2009, state and local officials worked to lure Willard & Kelsey Solar Group, a company that manufactures solar panels, to Orlando-Orange County. The company was able to negotiate a package deal from Orlando's leadership worth \$31 million in tax credits, rebates and job creation grants (Kassaba, June, 2009). The region was competing with the company's 'home town', as state and local boosters in Toledo, Ohio offered over \$15 million in loans and grants for the expansion of the existing plant. The plant expansion was estimated to add nearly 3,500 jobs to the northern Ohio region, but had the potential to bring even more jobs to Central Florida (*ibid*). While indicative of the type of manufacturing firms Central Florida boosters were seeking to attract, the firm ultimately chose not to relocate to Orlando. The plant stayed in Ohio at the urging of US Vice-President Joe Biden (Kassab, June, 2009). The solar company took a \$5.5 million financing package over two years from the State of Ohio in 2009. By the summer of 2013, the company was defunct, owed \$12 million in loans and could not account for \$1.3 million in state subsidies (Turner, July, 2013). While Central Florida did not win this subsidy bidding battle, they have had their fair share of failed public investment in attracting and retaining high-wage manufacturing jobs.

In the 1990s, Orlando-Orange County was seeking to become a hub of microchip manufacturing, trying to lure large semiconductor firms to the region. Cirent Semiconductor, later known as Agere Systems, was located in Orange County and employed nearly 2,000 workers. (Kassab, July, 2010). The firm invested \$1.4 billion in a state-of-the-art clean room processing facility. In the late 1990s, the company considered relocating to Spain and was presented with over \$40 million in public subsidies to stay in Central Florida. That funding only bought Orlando a few more years before Agere Systems decided to restructure its business model and relocate its production facilities in 2002. The clean-room manufacturing facility and its 206 acres of property was abandoned by 2005 and ultimately purchased by the Travistock Group for \$50 million. In July 2010, the facility was razed to make way for new types of manufacturing facilities (*ibid*). This facility was the one and only microchip processor plant Orlando was able to attract as part of its effort to become a hub of semiconductor R&D and manufacturing (*ibid*).

The current form of Central Florida's attempt at establishing a technology agglomeration to boost the regional economy is rooted in biomedical technology and simulation design. With defense industry research and design firms, aerospace production facilities and entertainment sector visualization technology, local boosters began to sell Orlando as an epicenter of simulation technology innovation. UCF began acting as a conduit for technology collaborations between the entertainment sector and the aerospace and defense sector in Orlando. The confluence of military and aerospace technology firms with local entertainment technology companies has generated a new subset of technology companies that design advanced training simulators (Holstein, 2011). Orlando now has over 150 simulator companies employing 30,000 workers, many of whom are funded through Department of Defense (DOD) or NASA, but draw on the skills of video game and entertainment engineers and designers associated with the Orlando entertainment industry (Sage, July, 2010).

Most compelling to Central Florida boosters is the transition of DOD medical simulation technology to civilian medical simulation and training markets. In 2010, the Orange County Convention Center hosted the military simulation and training industry trade show for contractors to highlight advanced technology in military simulation. With the reduction of forces in Iraq and Afghanistan, defense contractors are now looking to transition technological advances in simulation into civilian markets. The industry with the most potential is the medical simulation industry, evidenced by the emergence of the conference's new Healthcare Pavilion highlighting the potential for military medical technology to enter the private healthcare market (Burnett, December, 2010). With technologies such as combat-medic trainer, virtual intensive-care unit command center and 3D surgery center, private contractors are hoping to find a niche in crossover products to train first responders, nurses and doctors across the country. The products themselves, manufactured and marketed by global giants such as Lockheed Martin, are based on advanced training computer operated mannequins that are designed to mimic biological reactions to trauma and disease (*ibid*).

In July 2010, Orange County Mayor Rich Crotty called health care training and simulation "the next big thing" for the Central Florida economy (cited in Sage, July, 2010). The National Center for Simulation in Orlando, a booster group focused on attracting the high-tech simulation and training industry to Central Florida, has proclaimed medical simulation as a 'natural' fit for the local economy (*ibid*). At his retirement, the center's former director, Russ Hauck, noted that a new sector of medical and healthcare simulation was poised to develop as a spinoff of military simulation and that the region was ideally situated to take advantage of this

emerging market (Burnett, October, 2009). This is a claim that Hauk had been making since 2008:

"Industry officials said the military agencies' initiative could play a key role in an important new direction for Central Florida's simulation training industry, which is regarded as the nation's largest cluster of training technology operations. Simulation training science needs to be prominent in the mix as Central Florida's biomedical community takes shape, officials said. The region's "Medical City" at Lake Nona will include the UCF med school and, the Burnham Institute of Medical Research and Nemours new children's hospital. There will be critical synergy with those institutions for the simulation industry, said Russ Hauck, executive director of the National Center for Simulation, an industry trade group located at Central Florida Research Park. 'We believe the future is very bright for Central Florida in medical simulation,' he said." (Burnett, January, 2008)

Orlando has had a robust relationship with military funding and defense contractor clustering and has worked hard to develop a new research cluster at the intersection of defense projects and medical simulation technology.

The US Army Research, Development and Engineering Command, located in Orlando, has partnered with the UCF Medical School to design and evaluate advanced medical simulator training systems. With \$1.2 million in federal defense funding, the two entities founded the Joint Medical Research and Development Center (Burnett, January, 2008). In 2010, the federal government announced that two new medical simulation centers would be located in Orlando to support military and veterans healthcare and training needs. The U.S. Department of Veterans Affairs (VA) national medical simulation training will serve as a training center for medical professionals from all 162 medical centers in the VA hospital system (Quintero, February, 2010a; February, 2010b). Additionally, the Department of Defense announced a \$4.2 million robotics and simulation center at the Florida Hospital system's Celebration Health campus. The Global Center of Excellence in Medical Robotics and Simulation will partner with the UCF Medical School, UCF Institute for Simulation and Training and the Nicholson Center for Surgical Advancement.

Biomedical Technology Research and Health Care Clusters

Medical City at Lake Nona is a master planned medical agglomeration located within the Orlando city limits, which is being backed by regional boosters. The property development is managed by the Tavistock Group, a firm owned by British billionaire Joe Lewis (Jackson, March, 2008a; March, 2008b). Tavistock purchased 11 square miles of property adjacent to the Orlando

International Airport in 1996 (Jameson, January, 2012). The Lake Nona Development was designed to be a compact smart growth community, starting with 1,300 homes, an elementary school and YMCA center. Developers realized the neighborhood required a center for economic development to fully realize the project's potential as an example of new urbanism. In 2003, the company decided the best use of the land was to create a biomedical research cluster on the property. Tavistock designated a section of the development 'Medical City at Lake Nona' and began working to recruit biomedical research and technology firms to the development (*ibid*). In an effort to create a site capable of attracting biomed firms and leading medical researchers, Tavistock planned an upscale walkable new urban community adjacent to the medical center. The Village Walk was designed to cater to medical researchers and hospital staff in the hope of enticing cutting-edge companies to Medical City with quality of life amenities.

While Medical City was being designed to attract a biomed agglomeration, the University of Central Florida was in the process of lobbying the state to support the establishment of a new College of Medicine at the university. In an effort to meet the projected shortage of regional doctors and jump start a new medical research agglomeration, local boosters worked to ensure state approval and funding for the new medical school (Maize, 2009). In 2003, UCF established the Burnett School of Biomedical sciences and recruited 32 faculty members to begin this new biomed research program (Quintero, 2009). In an effort to secure state support for the med school and to anchor the biomedical research development, Tavistock and UCF agreed to locate the new college of medicine at Medical City. Tavistock donated \$12.5 million to construct the facility and 50 acres at the center of the Medical City development to ensure the medical college would serve as the flagship of the biomedical cluster. Based on a 2008 study, Medical City and the UCF College of Medicine were projected to have a \$7.6 billion economic impact within ten years, \$456 million of which were expected to come from tax revenues. The report, conducted by Arduin, Laffter & Moore Econometrics, indicated a large impact for the Central Florida workforce, with the biomedical research center and new medical school creating 30,000 local jobs within the first ten years (Zaragoza, December, 2008).

The state was swayed by economic impact projections and private investment from Tavistock, and matched the private investment with \$25 million in public funds. With legislative support, the UCF College of Medicine began construction of a \$100 million medical research facility (Jameson, 2012). Local boosters wanted to ensure quality students and a high ranking for the new medical school and donations were collected to fully fund the first cohort of medical students. A fully funded medical school cohort had not existed at any other medical school in the country. Public investment and private donations were used to establish the funds for the first

class of UCF medical students (Lafferty, 2009). The first cohort of 40 medical students began in 2009, starting coursework on the UCF main campus as the medical school facility was being completed.

Around the same time Tavistock donated land to the College of Medicine, Medical City was seeking a secondary anchor for its biomedical research agglomeration. In an effort to attract a large private research firm to Lake Nona, Tavistock donated land to entice the Burnham Institute for Medical Research, a nationally recognized biomedical research firm based in the San Diego suburb of La Jolla (Kassab, April, 2009). The institute was later renamed Sanford-Burnham to recognize the philanthropic donation of Denny Sanford. The cooperative efforts of UCF, Tavistock and Sanford-Burnham were heralded by Orlando boosters and local media as the type of ‘critical synergy’ and public private partnership that would be essential for future biomedical economic growth in the region (Burnett, January, 2008; Kassab, June, 2012; Research Interview: 14). However, some local boosters have been critical of the slow pace of biomedical development. Comparing current biomedical technology growth with Governor Bush’s claim that public investment in biomedical agglomerations would yield a mature growth industry for Florida, local Orlando Sentinel columnist Beth Kassab questioned public investment in biomedical research:

“‘Scripps will create the type of synergy and ‘buzz’ that will lead to a multitude of associated businesses ... wanting to relocate to Florida to be close to where innovation and technology are white hot,’ Gov. Jeb Bush wrote in a letter to the Senate in 2003 when he kicked off the state’s biotech spending spree. While there are some examples of collaborations between the research institutes and universities and hospitals, there hasn’t been anything close to a flurry of new businesses on a ‘white hot’ hiring frenzy. More like lukewarm.” (Kassab, June, 2012)

Despite some vocal critics, Florida policymakers made public investments in the infrastructure required to establish a biomedical technology cluster in the Orlando region.

A series of public-private projects and booster led initiatives propelled the biomedical research project forward. The quasi-public Orlando Orange County Expressway Authority (OOCEA) designed a \$70 million highway interchange to connect Boggy Creek Road and State Road 417, which are located near the Lake Nona development project. Citing access to the Orlando airport and Medical City, the two year construction project will put a flyover ramp to expand exit capacity for the toll road (Tracy and Breen, May, 2012). In 2007, the Tavistock Group partnered with the City of Orlando for this SR-417 highway interchange. Tavistock provided \$30 million for the highway project with the stipulation that the city’s early tax revenues from the Lake Nona development would be used to pay back the private financing. The agreement dedicated the first portion of property taxes to funding public safety expenses in Lake

Nona, such as increased police and fire services. The second portion of the property tax revenue was to service the \$30 million private investment in the highway interchange project (Shanklin, December, 2009). However, the repayment schedule fell short, as the economic recession devalued local property and reduced private commercial development at the Lake Nona project. The 2009 property tax revenue from Medical City was \$125 million, well short of the \$503 million in revenues predicted in 2008 projections (*ibid*).

While Medical City is centered on biomedical research and the commodification of medical knowledge, the central Florida health care systems are more firmly focused on patient care. Central Florida has two large health care systems - Orlando Health and Florida Hospital - that have a significant impact on the local economy. Orlando Health is the region's fifth largest employer, directly employing over 14,000 people with an additional 2,000 affiliated doctors in the Orlando metropolitan area (Orlando Health, 2013). Florida Hospital, a state wide system, employs over 17,000 people across the state and is expanding its flagship hospital in downtown Orlando.

As the name indicates, Orlando Health is the more localized and Orlando-centric of the two health care systems. Formerly known as Orlando Regional Medical Center (ORMC) to reflect its flagship hospital, Orlando Health operates as a private, not-for-profit health care system. Orlando Health facilities have a capacity of 1,800 beds that includes five all-purpose hospitals in the greater Orlando area and three specialty centers – the Arnold Palmer Children's Hospital, Winnie Palmer Hospital for Women and Babies and the MD Anderson Cancer Center of Orlando. The system's Orlando Regional Medical Center has a large teaching hospital and graduate medical program and serves as the only Level One Trauma Center in Central Florida (Orlando Health, 2013). Framing themselves as a community hospital system, the health care system has no affiliation with any larger national health care network.

Like Orlando Health, Florida Hospital is a private, not for profit health care system. The system has 22 hospitals and specialized health care facilities throughout the state of Florida with its system headquarters located at the downtown Orlando facility. While a few hospitals are located in north Florida, a large portion of Florida Hospital facilities serve the greater central Florida area, with a cluster of hospitals along the Tampa-Orlando-Daytona I-4 corridor. The Florida Hospital system is affiliated with the Seventh Day Adventist Church and is part of the larger Adventist Health System, which operates 44 hospitals in the US. (Florida Hospital, 2013).

Both Florida Hospital and Orlando Health have stations planned along the SunRail route and are in the processes of expanding around the new transportation hubs. With Orlando Health situated adjacent to the southern downtown station and Florida Hospital adjacent to the northern

most Orlando stop, the medical care industry is serving as an anchor for downtown transit oriented growth. These transit-oriented development hospital expansion projects will be explored further in Chapter four, but for now it is worth noting that transit connectivity and transportation is a crucial component of Central Florida's plan to become a destination for medical tourism. In a letter of support for SunRail, Florida Hospital CEO Lars Houmann wrote:

"Our entire region has developed a new approach to its growth and development over the next 50 years. That approach is organized around development closely integrated with transportation corridors and clusters, departing from the sprawl that has driven Florida's economic growth until now. Clearly recognizing that our future economic health as a state and as a region cannot be based on housing development, tourism, and agriculture, we have committed to growing a prosperous diverse economy based on strengthening new sectors including simulation technology, digital arts, health care, and biotechnology. Sun Rail is vital to that vision of growth and diversification of the economy. Without it, we go back to the drawing board." (Letters of Support, Florida Hospital, 2011)

The two industries - biomedicine and patient health care - are closely related. The connection between medical research and procedure implementation enables Orlando to market itself as a 'medical tourism' destination. This economic development plan requires an integration of both new medical research and world class physicians to employ the new technology. Local boosters envision a future medical enclave that will diffuse cutting edge medical research around the world and draw patients, doctors and researchers to Central Florida for world class health care, biomedical research and medical simulation training.

In an effort to physically connect researchers and health care professionals and to provide direct access for hospital patients to state of the art biomedical technology, boosters are selling the future transit connectivity of the city. An Orlando transportation planner noted the importance of developing a transit line to the Orlando International Airport (OIA), noting that the proposed project that would link SunRail with the international airport and Medical City:

"Making the SunRail connection to the international airport makes sense. And then the city has a lot vested in the Medical City complex. And then Orange County has a technology corridor they are trying to create, as well. So, we thought that linking these assets tighter made a lot of sense;" (Research Interview: 20)

Planners seek to create a rail spur, called the OIA Connector, that would connect the Orlando International Airport and the Medical City development with the SunRail system, allowing patients and doctors to move between the two large hospitals and have access to specialized procedures at Medical City research facilities. The SunRail project manager for FDOT noted the

progress with the OIA Connection highlighting the need to connect Medical City with the entertainment tourism destination in western Orange County:

“The Department of Transportation just advertised – a week ago – for what we call the OIA Connector Refresh. And that will go between the Orange County Convention Center to SunRail to the Orlando International Airport down to Medical City.” (Research Interview: 12)

A viable medical tourism sector would require local transportation infrastructure to link existing tourism capacities with expanding healthcare centers.

Establishing a biomedical research and medical tourism industry would require the ability to utilize Orlando’s existing tourism infrastructure, such as hotels, restaurants and airport connectivity, by creating transit connectivity between sites (Research Interview: 12; 17; 19). A representative for local booster organization MyRegion touted the new wave of economic development, claiming that creating a synergy between the region’s capacity for tourism and the emerging biomedical agglomerations would grow the Orlando economy:

“If you could think of hotel and aviation in a new and different way. And kind-of converge these two along with our tourism centers and our burgeoning health care...We are already the largest tourism destination. We could become the largest medical tourism destination in the world.” (Research Interview: 19)

This connection between existing tourism infrastructure, biomedical research centers and hospital facilities in the region are necessary elements to marketing a medical tourism industry.

Local planners and policymakers claimed that SunRail increases the chances of creating a successful biomedical research and healthcare enclave, as commuter rail expands the commutes for researchers, healthcare workers, hospital administrators and patients (Research Interview: 9, 15, 22). The Mayor’s Office claimed that Medical City is being designed to be transit-ready and city planners have put a rapid bus transit (BRT) system in place to serve the site (Research Interview: 20, 21). While bus connectivity is viewed as the immediate solution, ultimately planners want regional rail connectivity to link SunRail with more localized Medical City transit options. Transportation planners are working to establish a new rail project to link the Orlando airport to the SunRail system. The OIA Connector plan is currently being redesigned to include a stop at Lake Nona to provide rail transit connectivity between medical city, the airport and the two hospitals (Research Interview: 9, 15, 20, 21). The retired Director of Planning for the City of Orlando previews the rail spur:

“One of the activities going on now – with the commuter rail – is talking about ‘how do we connect the airport and Medical City’ – particularly this VA center – to the rail. There is, obviously, an Orlando Utility Commission coal line that connects from the mainline at Taft and runs south of the airport...there is a railroad line that runs – literally – right on the other side of the expressway... That is something that is being looked at now. How do we get early transit access into [Medical City] and develop this whole thing as a transit-oriented community.” (Research Interview: 15)

Providing a transit connection between the biomedical research center, Orlando Regional Medical Center and Florida Hospital, each of which is developing its own on-campus transit connectivity plan, is framed as a vital component for establishing a regionally integrated biomedical sector in Central Florida.

A significant number of interviewees referenced Medical City a ‘game changer’ that will provide Orlando the opportunity to establish a sustainable biomedical research sector and a comprehensive medical tourism industry. A member of the Orlando Hispanic Chamber of Commerce argued that the oncoming biomedical research boom will change the economic landscape and the built environment of Orlando in a magnitude not seen since Disney theme parks came to the region:

“There are very important milestones in our community as we have developed. I mean, if we look back, we think of Walt Disney and what he was able to do - back in the late ‘60s and early ‘70s – by bringing Walt Disney World here. That was a milestone. ...Same thing with the University of Central Florida. One of the largest or second largest universities in the United States... I think that the way we are going to set up our transportation system in the next five years, it is going to set up a third huge milestone that is going to differentiate us... The university and its partners in medical city is another game changer.” (Research Interview: 14)

The president of MyRegion, a local booster group aligned with the Central Florida Partnership, echoed these high expectations for the biomedical sector in Central Florida:

“Economists are saying that Medical City and that biomedical cluster will do for Central Florida what tourism did. We started in agriculture, we moved DOD and then this is really the fourth wave.” (Research Interview: 19)

These sentiments appear to be the ‘party-line’ for the local business community, as many business leaders espouse the same mantra of biomedicine. The president of the Orlando Economic Development Commission, Ray Gilley, told the Orlando Sentinel that the Medical City development could be compared to the arrival of Disney and highlighted the success of other biomedical technology success stories from other cities (Quintero, October, 2009). In 2009, biomedical research enclaves were supported by Governor Jeb Bush and Orange County Mayor

Rich Crotty, who billed the industry as a game changer (Kassab, October, 2009). Bush's thoughts on biomedical technology go even further, stating that the emerging medical research clusters in Florida would be the most important "transformation" in the region since the invention of air-conditioning (*ibid*).

Other assessments of Medical City's attempt to establish Orlando as an industry agglomeration for biomedical technology and medical tourism have not been so positive. Local commentators in the Orlando Sentinel are more critical of the comparison of Medical City's economic impact with that of Disney World. Local columnist Beth Kassab (October, 2009) warns of putting too much faith in Medical City firms, such as the Sanford–Burnham Institute, as the next Disney:

"…over the next decade, Burnham will likely put Orlando on the map as a center for diabetes and obesity research. But if Orlando is searching for a Holy Grail to provide high-paying professions to balance the low-wage service jobs in the tourism sector, then Burnham is only a piece of the Grail."

She goes on to note that biomedical research must work with the region's simulation sectors and military research and design sector to create a more diverse and productive technology research cluster that can provide high-wage professional jobs in the region. Highlighting that Disney alone provides over 60,000 jobs and simulation technology currently accounts for another 20,000 jobs, Kassab notes that the 4,500 projected jobs at Medical City is far from "being Disney-sized."

The optimism of state politicians and business leaders has led to a rash of publicly subsidized biomedical research clusters in the state of Florida. During the administrations of Governor Jeb Bush and Charlie Crist, over \$1.6 billion in public funds were invested in biotech projects throughout the state. Nearly \$700 million in state funds were coupled with local government matching funds to bolster eight private research centers, which account for over half of all biomedical technology research funding in the state. By 2010, these research centers had created 1,100 jobs state-wide, leading some state legislators to question public investment in biotechnology research clusters (Deslatte, June, 2012; Kassab, January, 2010). The public investment in eight clusters throughout the state has also created regional competition for private investment among regions in Florida, as floundering biotechnology companies have continued to seek state subsidies. By 2012, the three largest recipients of state funding were Scripps-Florida in Palm County (\$550 million), Sanford-Burnham in Orlando's Medical City (\$310 million) and Torrey Pines Institute for Molecular Studies in Port St. Lucie (\$90 million). Between them, the three firms had directly created a total of 715 jobs (Kassab, June 2012). Other biomedical research centers receiving state and local startup funds, such as the University of Miami Hussman

Institute for Human Genomics (\$80 million), Max Planck Society's biomedical facility in Jupiter (\$188 million) and SRI International in St. Petersburg (\$20 million), have also failed to generate projected job creation and tax revenues (Deslatte, June, 2012). Those defending the use of public money note that private investment in Florida biotechnology has increased by 200% between 2011 and 2012, although the 2012 figure of \$87 million was still well below projected capital investments from private firms (*ibid*).

With dwindling state funds for establishing biomedical research clusters and seven other competing biomedical technology clusters in the state, pressure is beginning to mount to convert public investment in Medical City into revenue generation and job creation. Local boosters have begun to look for new strategies for attracting private investment into the Central Florida research cluster. In 2011, the Metro Orlando Economic Development Commission hired Rick Weddle as executive director to lead the quasi-public economic governance organization, citing his previous work in recruiting biomedical research firms and his experience at furthering the development of science and technology parks. Prior to taking the position, Weddle had served as the CEO of the Research Triangle Park Foundation in North Carolina (Clarke, February, 2011). Choosing an executive from Research Triangle Park, a benchmark for biotechnology clusters and economic development, highlights the focus of local boosters on biomedical economic development. Weddle was hired to locally modify successful biotechnology development policies from Research Triangle Park. It is clear that Research Triangle Park, NC is the benchmark for Orlando's biotechnology production, biomedical research and health care tourism industries.

Central Florida Boosters and Entrepreneurial Governance

The region's increased push to draw technology companies to the area is centered on placemaking strategies that emphasize the advantages of existing economic sectors coupled with providing public subsidies. The strategy is one that aligns with the entrepreneurial approach to urban governance highlighted in the previous chapter. The attempt to entice the relocation of technology firms have been designed to leverage existing economic and geographic advantages and local amenities. In the case of technology agglomeration in Orlando, we can see how three of the four entrepreneurial strategies identified by Harvey coalesce as a means of facilitating a two pronged local economic development strategy centered on tourism and technology research. Current plans seek to capitalize on Orlando's current labor market strengths, foster consumption through the tourist trade and draw subsidies from the central state (see previous chapter).

The establishment of Disney World in Central Florida supplied Orlando with a legion of professional ‘imagineers’ to facilitate placemaking and marketing strategies. Orlando, as a theme park centered tourist attraction that is stocked with amenities, has succeeded in commodifying place. With over 51 million visitors a year, the city is consumed en masse. While Orlando is a globally recognized industry agglomeration of family tourism, the city is seeking to establish itself as a regional center for biomedical research and virtual simulation technology. Bolstered by Department of Defense spending, Central Florida is using the strategy of government redistribution to establish itself as a regional biomedical technology agglomeration. Given this federal investment, defense contractors and aerospace firms established research and design offices and production facilities in Orlando – enticed by tax incentives and publically provided infrastructure. This agglomeration of defense contractors spurred the establishment of the University of Central Florida, as a means of creating a well-trained labor force to support these firms.

Entrepreneurialism versus Traditional Boosterism

Early Orlando ‘movers and shakers’, such as Bill Dial, the Orlando booster that arranged the private purchase of property to establish UCF, and Linton Allen, former president and chair of the First National Bank in Orlando, looked to foster very specific types of economic growth and job creation in the 1940s and 1950s. They worked to establish road and highway connectivity in the hope of luring high wage manufacturing jobs to the region. The goal of attracting manufacturing jobs required a specific infrastructure – transportation connectivity to the country’s expanding highway and interstate infrastructure. Remnants of this type of boosterism still exist in Orlando, such as efforts to make freight rail improvements as a means of attracting manufacturing jobs. Entrepreneurial governance, in contrast, mandates public investment in broader placemaking initiative and more speculative development projects. SunRail boosters are no longer targeting one sector of industry that requires a rail infrastructure, as was the case with high wage manufacturing industries that required better highway infrastructure in Central Florida. Rather, the intent of SunRail is to create a broad urban image of a forward thinking and lively place for economic development. The project seeks to help market the city to potential private investment by meeting the ‘creative city’ requirements of a young educated professional workforce, better transportation options and more quality of life amenities.

When the Army Missile Center was established at Cape Canaveral, local boosters sprung to action to attract research and design firms to the city. As the Glenn Martin Company began

looking to establish a research and missile production facility in the region, Orlando boosters optioned prime property for a manufacturing center and worked to secure state approval for the special road and waste water permitting required to construct and operate the aerospace plant. In an effort to expedite plant construction, the special permitting and infrastructure capacity need for the Glenn Martin Company was attained by local boosters. The permitting and property acquisition was undertaken to meet the specific needs of a particular firm seeking to establish R&D and production facilities in the area. The establishment of the aerospace facility was location specific; the purpose of locating in Central Florida was to capitalize on the geographic proximity to the government missile center, creating a finite area in which to locate their new facility. Orlando boosters worked to ensure that their city secured the first large aerospace firm in the region, in an effort to become the hub of aerospace engineering for the missile center. Given the geographic parameters, the city was seeking to attract fixed investment with limited public risk. While there were other cities in close proximity where the company could have located its plant, there was a distinctly delineated geography to site selection, thereby reducing the field of cities in competition for the facility. No infrastructure had been built to attract the aerospace facility and the road and sewage infrastructure would only have been constructed once the firm chose to locate in the city.

Orlando's contemporary economic development strategies are far more entrepreneurial in character. Local growth strategies use speculative investment to attract mobile investment, exemplified by the region's attempt to establish an identity as a biomedical and simulation technology agglomeration. Leveraging its urban image and reputation as a tourist destination, Central Florida boosters seek to create the first domestic medical tourism agglomeration in the United States. This development plan requires the attraction of nationally prestigious medical research firms and an influx of medical specialists. The biotechnology and simulator investments the region is seeking to attract are mobile and could be located in an array of possible locations. There are limited geographic constraints on an industry that relies on laboratory spaces that can be readily made available and information technology embedded in a hyper-mobilized and networked digital medium.

Given this high level of mobility, local boosters work to create a spatial niche that will attract biomedical investment, high paying jobs and bolster the region's budding reputation as a medical technology agglomeration. According to the local elites that work to foster this environment of economic competitiveness, it is the socio-economic conditions of the metropolitan area that can differentiate cities in the quest for mobile capital investment.

“We are a development region that has plenty of potential to become a super place, where quality of life is the main driver to attract companies, to attract entrepreneurs, to attract talent, to attract ideas, to attract capital, to attract foreign direct investment and to attract domestic direct investment. And all-in-all, really an opportunity to highlight all the best we can offer. There are brighter years ahead and this is one step of what we want to build as a community.” (Research Interview: 14)

By working to establish the pre-conditions of agglomeration, local boosters are attempting to attract and embed biomedical research. These pre-conditions are sought through speculative public investment in transportation infrastructure, workforce development and place marketing. In the case of establishing a medical tourism enclave, local boosters employ three strategies:

- (1) Establishing the SunRail commuter rail system to increase connectivity and entice young medical professionals to the city. The system will connect the two large hospital systems located in downtown Orlando and could build a connector route to integrate the commuter rail system with the airport and adjacent Medical City development, which would link the two regional medical enclaves. This would provide alternative transportation opportunities to patients, their families, researchers, medical professionals and support staff.
- (2) Building a state-of-the-art medical research infrastructure at Medical City, including large institutions and organizations to anchor the site. Building elaborate facilities for the College of Medicine at the University of Central Florida and the Sanford-Burnham Institute will help establish both the material form and the requisite reputation for biomedical agglomeration. In an effort to add credibility, Medical City is working to reach agreements for the University of Florida and Duke University affiliated biomedical research centers. Medical City is expected to provide spillover benefits through technology transfer between the research center and the available healthcare at the local hospital systems.
- (3) Drawing on the first two strategies, boosters work to market the regional reputation as a hot spot for biomedical research. In an effort to attract private biomedical investment, a narrative is created to situate Orlando as a premier location for medical technology research. Additionally, the discourse must market the region’s quality of life to researchers and healthcare professionals, as well as, establishing a narrative that Central Florida’s existing capacity to accommodate entertainment tourism will translate into the ability to accommodate an influx of medical tourists into the region.

Creating the conditions of agglomeration for mobile capital provides the city an advantage to compete with other cities. Boosters work to create policies, tax incentives, favorable labor pools and physical infrastructure that create site specific advantages, which they hope will be cemented into long-term economic growth. However, the same entrepreneurial development strategies implemented to create conditions of economic agglomeration can serve to undermine the probability of sustained development. With a majority of infrastructure investment derived from public funds, relocating firms have little infrastructural capital vested in the local site. Should

another region offer a more integrated transportation system, better quality of life advantages or a lower-wage workforce there are few barriers to a further relocation

Far from the claims that local entrepreneurialism creates an ‘all boats rising’ scenario and the critique of entrepreneurialism as a zero sum game that spatially restructures existing economic resources (see Leitner and Sheppard, 1998; Chapin, 2002), entrepreneurial strategies can serve to create new spatial structures of value extraction – a spatial fix. With public investment assuming the risk in infrastructural capacity, firms can become ever more mobile. By facilitating and even encouraging this mobility, public speculative investment serves to erode efforts to establish a stable and sustainable local economy. The rise of entrepreneurial governance has created conditions whereby firms are in a constant state of seeking to exploit these ephemeral advantages.

This speculative public investment is guided by urban boosters, a group comprised of local business leaders, policymakers, elected officials and other local elites. The increased diversity in booster organizations begins to erode the exclusive reliance on personal relationships and back room deals of the urban politics found in regime theory (see Stone, 1989). The organization of local business elites has changed, as today’s booster coalitions are built around the idea of regional business organizations that establish a good business climate and overall economic competitiveness for the city. The next section examines how this process has played out in Central Florida.

Coalition Building and Placemaking in Central Florida

Early urban boosters quickly realized the need to better market the region. In 1844, a visitor to the city would find themselves in Jernigan, Florida - the county seat of Mosquito County. In 1845, Mosquito County, one of the four original Florida counties, was subdivided into smaller counties (Brottemarkle, 1999). While it is unlikely that changing the name to Orange County helped lure the citrus industry to the region 35 years later, contemporary tourism growth was certainly aided by renaming the county. In 1857 the city changed its name from Jernigan to Orlando (Brottemarkle, 1999; Robison and Andrews, 1995). Contemporary placemaking, is rather more sophisticated than simple name changes and tourism slogans. Complex coalitions of urban boosters, local elites and policymakers create a strategy to meet the economic and spatial demands of private investment. The creation of ‘Central Florida’ as a recognized and coherent political and economic region is a recent occurrence that stemmed from local booster organizations and their desire to brand the region as a cohesive unit to stimulate economic growth

in the Orlando metropolitan area. A local booster organization called MyRegion was at the forefront of establishing an integrated region for the seven Central Florida counties.

Established in 2001, MyRegion is a group of local boosters, policymakers and other community leaders that came together to conduct an overview of what would become the official Central Florida economic region. Tracing their roots to a flurry of issues in 1999, including rail transit issues, the group sought to create an extra-governmental organization that could provide governance at the regional scale. MyRegion recounts their founding in the following terms:

Back in 1999, a number of issues compelled leaders in Central Florida to think “What should we be doing in the 21st century that we are not doing now? … Light rail, a penny sales tax, school reform, the 2012 Olympics bid — all of these issues needed some common ground, some consensus, to succeed. Sometimes we were able to work together and make it happen, sometimes we weren't. The core question became: How can Central Florida be globally competitive and maintain a high standard quality of life?

After listening to their members, constituents and customers, 18 business, government and civic organizations came together and identified a void in Central Florida. We all wanted to work together, but this region had no sense of itself. We had many resources and tools at our disposal, but there was no place to bring it all together, no place to combine the power and potential of this region to create something special. Residents and leaders had no place to go to put their heads together and figure out how to make Central Florida a better place for everyone (MyRegion, 2013).

Between 2001 and 2006, the organization collaborated with the East Central Florida Regional Planning Council to lay the groundwork for establishing a coherent economic region though a ‘regional values’ survey (MyRegion, 2013). In 2006, MyRegion began a \$1 million visioning project entitled *How Shall We Grow?* and its members traveled the region talking to businesses, community leaders and local residents. This private booster group used public funds to develop the regional plan, having received a \$850,000 visioning grant from the state of Florida (Hamburg, February, 2006). The not-for-profit organization supplemented the grant by soliciting other public funds, including a \$75,000 grant from the City of Orlando (Mathers et al, March, 2006).

At the end of the *How Shall We Grow* plan, MyRegion established a larger booster organization. The Central Florida Partnership (CFP), a broader and more formal regional economic development group composed of local boosters, was established as the product of the MyRegion growth visioning process. The CFP's visioning was reflected in a statement from one of the organization's early meeting agendas:

Central Florida consists of seven contiguous counties, containing 84 cities with the combined and complementary assets needed to compete on a worldwide basis. Long known as one of the world's top tourist destinations, technology and research are quickly expanding the identity of the region. Still, the region has yet to

capitalise on its many strengths because, until now, cities and counties, businesses and institutions have competed against, rather than with, each other. Now, more than ever, the uncertainty of the world makes it imperative that Central Florida creates a regional framework for thought and action built on trust, responsibility and accountability (CFP, New Regional Agenda, 2007).

MyRegion was then nestled within the Central Florida Partnership, along with other chambers of commerce and business organizations. CFP calls these sub-organizations ‘lines of business’ and the groups work in concert to provide a non-governmental mechanism for governance and regional development. The CFP website describes the organization’s ‘lines of business’:

The Central Florida Partnership is a collaborative of business and civic leaders committed to procuring a better tomorrow for Central Florida's seven counties - Brevard, Lake, Orange, Osceola, Polk, Seminole and Volusia. We are thoughtful leaders united by a single, guiding principle - that we have both the power and the responsibility to make change happen. Working together, through four lines of business – Orlando, Inc. (Regional Entrepreneurship), BusinessForce (Regional Public Policy Advocacy), MyRegion (Regional Research & Resolves) and Leadership Orlando (Regional Leadership) – the Central Florida Partnership is moving ‘Ideas to Results.’

The statement highlights the economic development focus of the broader booster organization. The creative cities approach and entrepreneurial strategies employed can be observed in the promotional material of all five organizations, peppered with phrases such as ‘quality of life’, ‘complexities of the global market’, ‘live, work and play’ amenities, ‘economic prosperity’ and ‘local entrepreneurs’. The quasi-public group seeks public funding to conduct regional surveys and market research about public policy issues, including several SunRail research reports.

MyRegion is currently conducting a study on the best means to fund transportation projects in Central Florida. The organization is seeking \$128,000 in public funds for the \$386,000 study, which will be financed in thirds from local business, the Central Florida Community Foundation and several quasi-governmental entities. Public funding is expected from local and state government sources via MetroPlan Orlando, Greater Aviation Authority, Orlando Orange County Expressway Authority and the Florida Department of Transportation (Tracy, November, 2012). During an interview with the representative for MyRegion, it became apparent that the organization has an interesting relationship with the local metropolitan planning organization (MPO), MetroPlan Orlando, and the East Central Florida Regional Planning Committee. In Florida, MPOs and regional planning committees (RPC) divide planning functions:

“Unlike a lot of MPOs around the country, where they have transportation and land use under one umbrella – again we split things here in Florida. We have regional planning councils who are primarily responsible for land use planning. And then MPOs [for transportation]...the definition should be ‘metropolitan area’ and it is generally county based.” (Research Interview: 19)

The MPOs are charged with transportation planning, while the RPCs conduct the land use planning. The president of MyRegion noted that creating an alliance between the booster organization, MetroPlan Orlando and the ECFRPC provided the Central Florida region with its first integrated regional land use and development plan. She also highlighted that the *How Shall We Grow* project was focused on land use first and economic development second (Research Interview: 19).

The MyRegion growth visioning project established a ‘Four Cs’ land use plan for the region that would increase global economic competitiveness and quality of life amenities in Central Florida. The focus included: Conservation, Countryside, City Centers and Corridors of Transportation (MyRegion, 2007; 2009; Research Interview: 14, 16, 19). The conservation component emphasized green space and preserving the quality of life amenities provided by the Florida environment with the implication that future regional growth must be dense, smart growth. Countryside was the moniker given for the issue of preserving the remaining agricultural industry and regional farmlands. City centers was the call to ensure that the urban centers and urban amenities in the region were connected by efficient transportation corridors and are economically integrated. Corridors of transportation presented the existing transportation advantages of the region and the need to continue to ensure the connectivity between Central Florida’s economic hubs. The report highlights the region’s many centers for passenger and freight transportation, including an international airport, several smaller community airports, a coastal port, a commercial spaceport and extensive interstate connectivity.

Distinctive cities and towns will provide choices for how Central Floridians live. Communities will meet the needs of residents, from those who want to live in a downtown high rise to those who desire a five-acre lot in the country. The region’s most vibrant centers will provide a mix of residential and commercial development. These will include traditional cities like Daytona Beach, Mount Dora, Lakeland, Sanford, and Orlando, as well as new urban developments including Dundee, Palm Bay, Altamonte Springs, and Deltona. Other centers will be more focused on economic drivers, such as the areas surrounding Orlando International Airport, the University of Central Florida, Cape Canaveral, and the region’s world-renowned attractions. Rich architectural details, urban parks, and commercial and cultural amenities will create a unique feel for each center. Most urban areas will have fewer single-family homes and an increased mix of

apartments and condominiums. Schools, jobs, shopping, health care facilities, and cultural amenities will be located in close proximity to residential areas. Residents will feel safe and secure and will see Central Florida as a place where they can both raise families and retire. (How Shall We Grow, 2007, pg 17)

The report also highlights the value that would come from transportation connectivity between these different types of urban centers and along dense urban development corridors.

Transportation corridors will provide the glue that links Central Florida's diverse centers to each other, and to the rest of the world. Central Florida will shift from a region that overwhelmingly depends on cars and trucks to offering its residents, businesses, and visitors a wide range of travel options. Many people in the most compact urban centers will be able to walk, bicycle, or take a bus or streetcar to school or work. People moving between centers will be able to drive or use transit or passenger rail systems. And people and freight moving between Central Florida and other parts of the world will have a full range of choices – from high speed expressways and rail systems to some of the world's most efficient airports, one of the nation's largest cruise passenger ports, and the nation's largest and most capable commercial spaceport. Greater choices and shorter trips will help reduce congestion on the region's key highways, saving time, money, and stress for residents and businesses. (How Shall We Grow, 2007, pg 17)

While MyRegion and CFP make the claim that they want to stay out of local politics, it is apparent the larger booster organization is seeking to advocate for commuter rail service and high speed rail connectivity in the region. Calling efficient transportation infrastructure the “glue” that holds the region together, MyRegion highlights the economic opportunities that an integrated rail network could provide the region. The failed HSR system would have provided the Central Florida region with integrated regional connectivity to the Tampa Bay region. Despite the geographic connotations of the term ‘Central Florida’, the region consists of only the eastern counties of the central section of Florida: the three Orlando MSA counties (Orange, Osceola and Seminole), the fourth SunRail commutershed county (Volusia) and Brevard, Lake and Polk counties. Conspicuously absent from the region is the Tampa Bay area west of Orlando. The Tampa Bay economic region, led by the booster organization called Tampa Bay Partnership (TBP), consists of the eight contiguous Gulf Coast counties in the Tampa-St. Petersburg area: Citrus, Hernando, Pasco, Hillsborough, Polk, Pinellas, Manatee and Sarasota. They conducted a similar study of their region called One Bay. Both regions, seeking to expand their economic opportunities and quality of life amenities, considered the potential to merge into a super-region through HSR connectivity.

In 2010, the University of Pennsylvania School of Design (PennDesign) worked with the Central Florida Partnership and the Tampa Bay Partnership, to analyze the economic,

environmental and land use impact of creating a ‘Super Region’. The concept was to more closely connect the Central Florida economic development region with the Tampa Bay economic development region. The president of MyRegion explains the potential to rescale these two economies by connecting them:

“If we separate the two, which has always been the tradition – Tampa and Orlando. We are the 19th and 20th largest regions in the United States. If we combine forces – and economies – we are the tenth largest economy in the United States.” (Research Interview: 19)

PennDesign examined the Central Florida *How Shall We Grow* report from 2007 and the TBP *One Bay: Livable Community Initiative*. Jonathan Barnett led the PennDesign Studio as they explored the economic impact of both regions sharing a common marketing plan and benefitting from composite infrastructure and quality of life amenities (see PennDesign, 2010; Barnett, 2007). The idea was to create a coherent region with multi-modal transportation connectivity, including multiple international airports, access to several major interstates, two major coastal ports and, and outstanding intraregional connectivity.

“If we thought differently how to leverage our assets and get people to and from those assets in a more effective manner. That’s where trains come in. That’s every mode... [Penn Design’s plan recommends] some visions about how we might want to connect in the long range.” (Research Interview: 19)

When the study was conducted the idea that the region would have high speed rail connecting the two urban hubs was still a viable possibility. The expanded region would also offer entertainment and environmental amenities, as well as multiple colleges and universities to create a very powerful place-making narrative. After Governor Scott terminated the high speed rail project, an Osceola County Commissioner lamented the loss of this connectivity:

“If we would have been able to drop in that system [high speed rail] – from Orlando to Tampa – it would have just changed the perception of Central Florida. It would have given us opportunities to try to channel the Olympics here, perhaps World Cup games and things of that nature. That would have really expanded our market. Just from a tourism perspective. The idea you could go to downtown Tampa catch a play and then come back to Disney at the end of the night. I mean, that’s a great opportunity for folks and we missed it. Unfortunately. Hopefully, we won’t drop the ball on SunRail.” (Research Interview: 2)

Local boosters emphasized the need for an integrated region that would allow Orlando and Tampa to stop competing with each other and facilitate a super region to secure new investment

from outside the region. Although Orlando regional boosters were eagerly anticipating the possibility of a super region, that opportunity fell by the wayside with the termination of the high speed rail project in 2011. Local boosters associated with MyRegion and CFP criticized the state's decision to decline federal funding for HSR as a missed opportunity to grow the region. The MyRegion representative called the loss of HSR a '100 year' decision that will change the cultural and economic landscape of the region for generations.

Conclusion

This chapter explored the history of Orlando's economic development through citrus groves, military contractors, entertainment theme parks and an emerging biomedical technology sector. Focusing on the role of local boosters, I have highlighted the importance of new infrastructures to spur these waves of economic growth. Examining the current vision of local boosters, it is clear that SunRail is expected to establish the pre-conditions for attracting high-wage biomedical technology investment into the region. Boosters seek to attract a young, educated labor pool through the development of transportation, cultural and environmental amenities, with the expectation that high-way biomedical and high-tech sectors will follow.

The next chapter will explore the politics and planning behind the SunRail system, Florida's failed high speed rail and several other failed rail transit projects. Despite local booster organizations, such as CFP, MyRegion, TBP and other powerful business interests, advocating the use of federal funds for HSR, a Tea Party ideology of austerity halted the project. SunRail, equally popular with these boosters groups, was allowed to go forward. The next chapter presents the public debate surrounding the SunRail system and its relationship to these booster organizations and the failed HSR system.

Chapter Four

ESTABLISHING SUNRAIL

A commuter rail corridor running parallel to US Interstate 4 has been considered in several long-term rail plans conducted by MetroPlan Orlando (Research Interview: 9; 11). The MPO had a vision that Orlando would have an integrated rail transit system with light rail, high speed rail and commuter rail. During the 1980s and 1990s several attempts at rail transportation failed. During the 1980s two maglev high speed rails were proposed for Central Florida, but the competition from two systems and political maneuvering ultimately lead to their failure. A 1990s light rail system was planned and ready to be financed when Orange County failed to authorize the funding at the last moment. These failures left planners with no rail transportation system and mounting congestion and pollution problems stemming from Central Florida's crowded roadways. In the early 2000s, planners turned to earlier long-term rail plans from the MPO and settled on commuter rail as a viable system for rail transit. Since no new track infrastructure would be required, planners hoped that they could get a commuter rail system up and running quickly. However, negotiations to acquire track right-of-way from CSX and getting the state legislature to approve the SunRail funding package took nearly a decade. Once these issues were resolved, Florida's new governor - with a Tea Party austerity agenda - attempted to terminate the commuter rail project. Ultimately however, the project was approved and plans went forward to establish the commuter rail with the target operational date of May 2014. This chapter outlines the history of earlier attempts at rail transportation in Orlando, a decade of political discourse on Central Florida commuter rail and the financing and technical features of the rail plan that was ultimately approved.

Previous Attempts at Orlando Rail Transit

Although moving fruits to market was the primary intent of early Florida rails, most freight trains had a single passenger car designed to accommodate intercity travel for wealthy elites, who would pass through Orlando en route to exclusive hunting and fishing camps that dotted the southern and central regions of Florida (Robinson and Andrews, 1995). Most early Florida rail passengers, however, would use Henry Flagler's Atlantic Coast Line, which operated a successful passenger rail system forty miles east on the Florida coast. Orlando's intra-urban rail transit and regional rail systems, however, did not develop as successfully as the intercity passenger rail services in the region. Central Florida's post-war attempts to establish urban rail

systems reveal a history of failed projects and competing private business interests. Starting with a proposal in 1957 to establish a monorail system linking the quickly growing but sprawling defense industry hubs in the Orlando area with the Missile Center at Cape Canaveral, there have been many attempts at establishing rail transportation for the Orlando metropolitan area (Grovdahl, 2007). The 1957 project, a private venture designed by Monorail, Inc., a Texas firm, did not get beyond the basic planning stage (MetroPlan, TransForum, 2010; Grovdahl, 2007). Since that proposed project, Orlando transportation planning has included discussions of monorail, light rail, commuter rail, magnetic levitated rail and conventional high speed rail projects to link the sprawling and multinucleated Central Florida commuteshed (Grovdahl, 2007).

While many of these plans came and went with little chance of realization, two rail projects were able to gain local support and had viable chances to become operational systems. A high speed magnetic levitated (Maglev) rail project in the 1980s and a light rail system in the 1990s came closest to realization. Both projects were revamped and redesigned to weather several political and economic storms, only to be defeated in the final stages of approval and design. While many local planners, policymakers and downtown boosters supported these projects, these rail systems failed due to the opposition from the theme park industry and divisive local politics. In order to establish the context for SunRail, I examine two Orlando area rail projects that failed –a magnetically levitated high speed rail project in the 1980s and a light rail project in the late 1990s.

Maglev Rail Project – 1980s

In 1983, the Japanese National Railway (JNR) company began working with the Florida High Speed Rail Commission in an attempt to establish a HSR system that would connect Tampa to Orlando to Miami. This project was the work of a Florida Department of Commerce staff member, Sam Tabachi, and then Florida Governor, Bob Graham. Graham, who had been impressed with a JNR rails system on an economic development trip to Japan, established the high speed rail commission to work toward launching a private-public venture to bring Japanese high speed rail technology to Florida (Fogelsong, 2001). The project was ultimately abandoned in 1985 when the economic analysis indicated that \$600 million in public subsidies would be required to make the HSR corridor a reality (*ibid*). While this more traditional wheel-and-track high speed system failed, it opened the door for collaboration between companies in Florida, Japan and West Germany to design a magnetic levitation high speed system. Maglev systems use

electrified magnets to push the train off the tracks allowing the rolling stock to hover ¾ of an inch off the rail infrastructure.

Once the JNR project failed in 1985, Sam Tabachi left the Florida Department of Commerce to establish his own high speed rail company. His company, Maglev of Florida, was backed by several Japanese banks and functioned as a Florida based subsidiary of the Japan Railway Technical Research Institute. In 1988, Maglev of Florida publically presented their plan to establish a high speed magnetic levitation rail from the Disney property to the Orlando airport (Fogelsong, 2001; Tracy, April, 1989). The plan, which called for a non-stop Maglev train operating between Disney's Epcot Center and the Orlando International Airport at 300 mph, was met by much resistance from competing tourist destinations. Universal Studios, Sea World and the privately developed International Drive entertainment district (I-Drive) fought against what they saw to be a public subsidy for their theme park competition. Although the \$500 million project was to be privately financed, it would require the right-of-way along public highway corridors, public funds for airport terminal expansion and the approval of the state's high speed rail commission (Tracy, April, 1989; July, 1989). The I-Drive lobbying group and the Kissimmee-St. Could Convention and Visitors Bureau commissioned UCF to study the economic impact of a HSR system directly connecting the airport to Disney property. The study concluded that the direct connection could cost tourism related businesses in Osceola County and I-Drive as much as \$400 million a year in lost sales (Tracy, June, 1989).

Seeing an opportunity to pitch a second rail system to appease the Osceola and I-Drive business communities, a second Japanese transportation company then proposed a competing plan for a high speed magnetic levitation train. The HSST Corporation proposed a plan that would reduce the train speed to 150 mph, allowing for multiple stops along the route. The suggested stops included Disney, I-Drive, Downtown Orlando and the Orlando International Airport (Fogelsong, 2001). Local Orlando politicians and non-Disney boosters preferred the multiple stop HSST technology and pressured the Florida legislature to allow both companies to submit plans to the High Speed Rail Commission. Fearing that a multi-stop rail system would facilitate more hotel stays off property, Disney privately preferred the non-stop maglev train. While Disney did not publically support either HSR plan, the company argued any maglev train that did not reach 300mph would negate the benefits of high speed rail (Fogelsong, 2001; Editorial Staff, October, 1989). The HSST plan ultimately failed when the company was unable to post the half a million dollar performance bond required for their application to be considered by the Florida High Speed Rail commission (*ibid*). After securing the default blessing of the HSR commission, Maglev of Florida began to move forward with their project to transport

tourists from the airport to Epcot. As a concession to Osceola County boosters, the project incorporated a future expansion design of a secondary feeder rail to connect I-Drive with an Osceola stop near Epcot (Tracy, June, 1989). To fund this line, however, I-Drive businesses would be required to add a district tax to their sales.

In September of 1989, as Tabachi was in Japan finalizing the project with investors, Disney officially informed the maglev project team that they would not allow the non-stop high speed rail to place a terminal at Epcot Center. Disney did, however, offer the rail system a new parcel of land for a terminal (Lafay, 1990). The new station site was located three miles away in a company owned cow pasture. Unknown to those outside Disney, the cow pasture that was offered for a HSR station was to be the site for the establishment of the model community of Celebration, Florida (Fogelsong, 2001). Once Disney balked at a HSR stop on park property, there was no destination for the maglev and the project stalled. Lacking a terminus station at Epcot, the project financers looked for an alternative station near the theme park clusters for the maglev system. The project revamped its route and proposed an airport to I-Drive line with a shuttle service into Disney. While this idea never gained the amount of local support of the first maglev plan, the project did gain support from local defense contractor Martin Marietta, US transit company Bechtel Corp and the Osceola business community (Vosburgh, 1990). The plan was given some low-level consideration by most Central Florida boosters but ultimately the project never materialized.

Orlando Light Rail System – 1990s

The focus on maglev high speed rail ignited interest in rail transit for Central Florida, both within the local community and with outside investors. With Maglev of Florida faltering and interest in rail rising, a consortium of US and international companies established the Florida High Speed Rail Corporation to plan a more conventional wheel-and-rail high speed line (Lafay, 1990; Wicker, 1990). This ultimately unsuccessful private venture to connect Tampa-Orlando-Miami by HSR provided much of the planning and design research for the State proposed HSR project in 2006 and 2009. While private planners worked to design a HSR system in the early 1990s, public transportation planners were busy trying to establish a light rail system to provide destination side connectivity in Orlando. The light rail system would require the construction of new, grade separated rail infrastructure. The light rail project was designed to revitalize the declining downtown entertainment and retail district by connecting the city center, the theme parks and the Airport.

As highlighted by the failed Maglev project, there has been a history of tension with projects that connect Orlando with the theme parks. Downtown Orlando had a resurgence in the 1970s, as tourists from the theme parks visited the city center for the nightlife at the Church Street Station entertainment district. The theme park industry - specifically Disney World and Universal - have an economic interest in keeping tourist on their properties. Their desire to keep visitors ‘on property’ ensures that hotel and restaurant revenues will stay with the company.

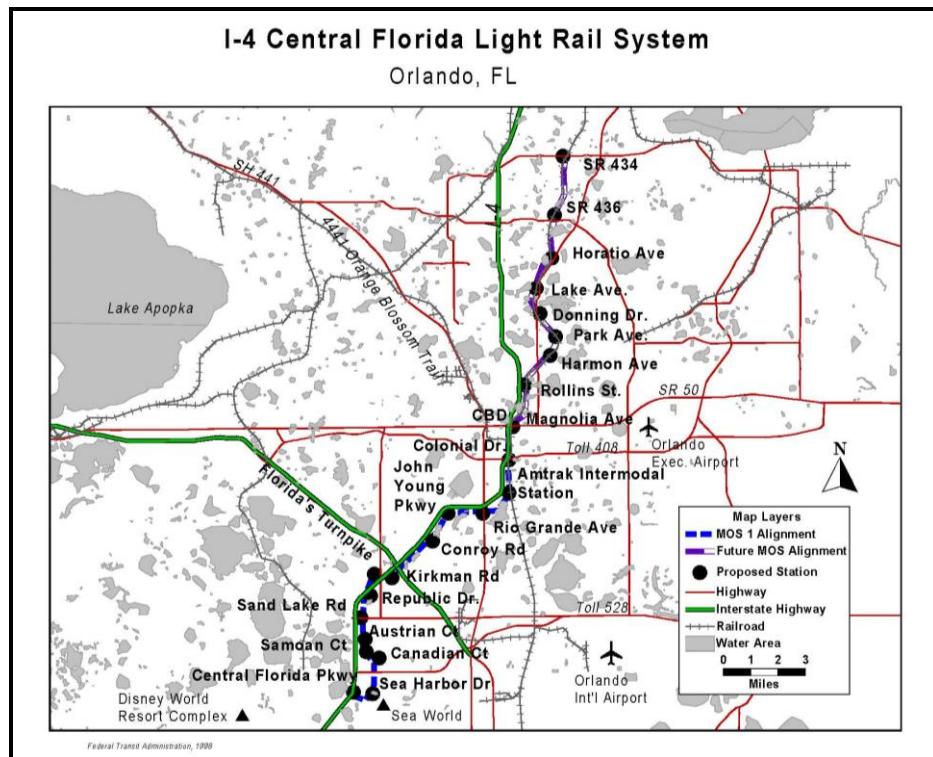


Figure 2: Orlando's Proposed Light Rail System
(Federal Transit Administration, 1998)

In an effort to keep tourists on property, Disney and Universal built competing nightlife venues at their parks. The introduction of Disney’s Pleasure Island, Downtown Disney and Universal City Walk stemmed the flow of tourists from the theme parks and plunged downtown Orlando into an economic slump (Fogelsong, 2001). The downtown entertainment district had fallen into disrepair by the late 1990s. The downtown space became codified as a dangerous area of the city, furthering its economic plight. The light rail plan was initially pitched as a way to revitalize downtown Orlando by providing a route that connected the airport to the theme parks by way of downtown. The accompanying economic development plan focused on transit-oriented development projections for areas adjacent to the proposed light rail route. While Disney did not participate in the plan, Universal Studios and the I-Drive entertainment district viewed a direct

rail connection to the airport as a means of providing their parks a competitive advantage (Foglesong, 2001). The Universal theme park pledged money for the \$600 million light rail project, although the amount of their contribution shifted back and forth between \$10 million and \$20 million during project planning (Foglesong, 2001; Maxwell and Stratton, 1999).

By 1999, the light rail project was reduced to a route that would have connected downtown Orlando to the theme parks, including the I-Drive district, Universal and Sea World. This route was chosen as the first light rail line by Lynx because it was their busiest bus route (Maxwell and Stratton, 1999). The system could be expanded and connected to the airport as ridership increased. The local planners at Lynx, Orange County and the City of Orlando had the light rail system designed and had secured \$450 million of transit funding from the FTA and the State of Florida (Maxwell and Stratton; Research Interview: 2, 5, 6). In the final stages of the project design, uncertainty derailed the establishment of an Orlando light rail system. The first issue was the withdrawal of funds by Universal theme park and the I-Drive tourist district as Universal's support for the project faded and the company backed out of its commitment to support the rail (Foglesong, 2001). The support of the I-Drive district waivered with concerns over construction impacts on business, aesthetics of a light rail running down the main tourist strip and a locally proposed tourism tax for the district to fund the project (Stratton, 1999)

Despite the lack of firm support from Universal and I-Drive, Orlando planners continued on with the light rail system. The final step necessary to begin construction of the light rail system was official approval from the Orange County commission. While the county commission was divided on the light rail project, project supporters had maintained a 4-3 majority leading up to the commission's vote. During the final vote, on September 8th 1999, county commissioner Clarence Hoenstine surprised local transportation planners by voting against the light rail system (Maxwell and Stratton, 1999; Research Interview: 5, 6). Hoenstine's swing vote gave the opponents of the rail system the simple majority required to reject the project. Local political observers and policy advisors were perplexed by the commissioner's vote, given his active involvement in the planning process and his previous sustained support for light rail in Orange County (*ibid*). The reason he gave for his last minute vote change was that he felt that there was not enough information about the project to allow it to continue forward. Specifically, he pointed to the unclear commitment of Universal and I-Drive businesses and questions over the ability to get a final signed contract for acquiring light rail right-of-way on the CSX freight rail envelope (Maxwell and Stratton, 1999). The commission's vote terminated the light rail project and since that point FDOT has been the lead project management agency for rail projects in Central Florida. The unsuccessful light rail project had some interesting policy

impacts on the establishment of the SunRail commuter rail system. Beyond another failed rail transit project in Central Florida and the creation of local skepticism about the likelihood of future rail projects, the failed light rail system established Orlando's first set of TOD plans and ordinances.

The History of SunRail Planning and Politics

The failure to develop a proposed light rail line in 1999 still is an ongoing concern for local transportation planners and transit officials (Research Interview: 5, 6, 9, 14, 15, 19). Many SunRail project planners lament the ways that light rail would have reshaped the urban form and economic landscape of Orlando. After the unexpected vote to terminate the light rail project, local transportation planners looked to commuter rail as the next opportunity to provide alternative modes of transit for the Central Florida region. An account in the Orlando Sentinel covered the project's failure:

"Wednesday's vote means Orange County rejected more than \$450 million in state and federal money for the system. That money now likely will be spent on transit projects elsewhere. While light rail appears to be dead, local officials could try to come up with another system. City officials say they don't have any plans on tap, but county commissioners have suggested building a small system solely to serve I-Drive." (Maxwell and Stratton, September, 1999)

A longtime planner for Orlando and Orange County noted that the Central Florida commuter rail project emerged from the 'leftovers' of the failed light rail plan. After the rejection of light rail, the region was still burdened with the transportation, environmental and economic development issues that were to be addressed by light rail. The planning community revisited earlier long-range transportation plans and alternative analysis studies in an effort to find a means of addressing these issues without a light rail system. The Orlando planner noted that there was no grand call for commuter rail per se; rather commuter rail was deemed to be the best means for moving forward with the remaining pieces of policy and transportation studies from past projects:

"A lot of those issues kind-of evolved. There was no big groundswell initiative – 'we've got to have commuter rail'. It didn't come that way. It came from seeing the problems and the pieces and ultimately coming together with a consensus that maybe [commuter rail] will help." (Research Interview: 9)

In 1994, a feasibility study on commuter rail in Central Florida was conducted for a route to connect the counties of Seminole, Orange and Osceola. Lynx, the lead local agency for the light

rail project, designed a regional transit system plan which highlighted the possibility of a commuter rail system to connect the three metro Orlando counties. The Orlando commuter rail studies, coupled with a 1999 Volusia County feasibility report exploring the possibility of connecting western Volusia County to downtown Orlando via rail, paved the way for local planners to begin considering commuter rail as the next attempt at rail transit in the region (Research Interview: 9). The SunRail project manager for FDOT explained that after the failure of Orange County's light rail project, FDOT was tasked with finding an alternative project to address Orlando's transportation issues. With several projects being considered by state and local planners, the commuter rail project started to be viewed as the best option. The project manager recalled the process:

“We had, at that time - back in 2003-2004, we had four or five projects going on. That included [the commuter rail] project. It was called the Central Florida Commuter Rail project....We had quite a few going on. And what seemed to happen is this Central Florida commuter rail project came to the forefront. It sort-of bubbled up to the top of the list. That people thought that this is the project we want to concentrate on... it really bubbled up the surface that this is the project the region really wanted to concentrate on.” (Research Interview: 5)

By 2002, a commuter rail alternative analysis study was underway to examine a north-south rail corridor for the region. Completed in 2004, the product of this study was the Deland to Poinciana route that would ultimately become the proposed corridor for SunRail (Orlando Mayor's Office, SunRail Timeline, 2011). The counties of Orange, Osceola, Seminole and Volusia and the City of Orlando organized as the key local government entities in the SunRail commutershed (Mica and Brown, 2011). These local governments funded FDOT to conduct an environmental assessment (EA) for a commuter rail corridor, which was being added to the long-term transportation vision plan by MetroPlan Orlando and the Volusia County MPO (Orlando Mayor's Office, SunRail Timeline, 2011; Mica and Brown, 2011). While conducting the EA, the Florida Department of Transportation also began the negotiations needed to establish a legal framework and financing structure for the commuter rail system (Mica and Brown, 2011; Research Interview: 9).

In an effort to mobilize support for commuter rail in Central Florida, local planners and policymakers began highlighting the specific needs that would be addressed by a commuter rail system. The pending expansion to US Interstate Highway 4 (I-4) provided an opportunity to solidify a well-defined need for commuter rail and provided the means to obtain federal funding to study the issue further. Interstate 4, the backbone of the Central Florida transportation system,

was becoming more congested and in need of additional lanes through downtown Orlando. The increasing population growth and the vast number of tourists that visit the region, coupled with the lack of alternative transportation options, have pushed the limits of I-4 capacity for the last two decades. Intersecting with Interstate-95 in Daytona and Interstate-75 near Tampa, I-4 serves as the main highway to connect Orlando to the Florida coasts and the rest of the southeast. This interconnectivity is vital for a city whose economy hinges on the 51 million tourists that come to the Orlando area every year.

In the 1990s, the Florida Department of Transportation (FDOT) and MetroPlan Orlando began the planning stages of a project to expand the capacity of I-4 in the greater Orlando area. Construction projects on US Interstates require state and local governments to submit an application to the Federal Highway Administration (FHWA), which includes an alternatives analysis (AA) plan with a traffic mitigation component. MetroPlan Orlando had to demonstrate that the I-4 project had a means of diverting 30% - 35% of the daily interstate capacity during the multi-year construction process (Research Interview: 9). The AA showed that no single local road or combination of roads were capable of absorbing the necessary increase in capacity to accommodate diverted I-4 commuters. The study found that the best way to mitigate the diminished I-4 capacity during the construction process was to create new capacity along the corridor. The study highlighted commuter rail as the most timely and effective option for creating new capacity. Expanding roads adjacent to I-4, which were already near capacity, would have been a slow and costly process (Research Interview: 3, 4, 7, 9).

The *How Shall We Grow* report, conducted by MyRegion and the Central Florida Partnership, noted that to meet current road capacity the region would need an additional 1,000 miles of highway lanes at a cost of \$5 billion. An FDOT study concluded that by 2050 every major roadway in the Orlando metropolitan area would be over capacity. The model indicated that the region would require an additional 7,000 lane miles of capacity at a cost of \$36 billion. Further complicating the argument for simple road expansion to meet capacity, nearly a quarter of roads projected to be over capacity by 2050 were classified as restricted. The restricted classification indicates that there is no space to expand the road by adding an additional lane. With environmental considerations and lack of publically owned right-of-way, these roads could not be feasibly widened (CFP, 2008; FDOT, Daily Commute Brochure, 2008). This study has been used by many SunRail proponents to justify the need for alternative modes of transportation in the region (Research Interview: 3, 9, 15, 20).

The 2050 road capacity map (Map 2) has been used as a visual narrative in the commuter rail debate. The map highlights the vast number of sprawling agglomerations of roads predicted

to be overcapacity in 2050 with a bright red color. Local planners and SunRail advocates have given it the moniker ‘the blood map’. A Seminole County Commissioner explains the economic impact associated with the map:

“Right now, we have heavy congestion...it is important we move toward mass transit. The state department [of transportation] has a map of all the roads throughout the state. It’s called ‘The Blood Map’ because by 2050 every road in the State of Florida will be totally congested. And if you can’t move people or move freight, your economy is going to suffer.” (Research Interview: 7)

By focusing on the congestion, environmental impact and the associated cost to the local economy, SunRail proponents presented a justification to fund early project feasibility studies. In this context commuter rail is framed as a component of a highway project and provides a means of securing early funding sources for feasibility studies and environmental assessments. Several U.S. commuter rail systems were initially designed as a temporary solution to mitigate congestion from a major highway project. The Miami Tri-Rail system was initially justified as a means of diverting traffic for an I-95 expansion project. While Tri-Rail was a planned permanent commuter system, the Shore Line East in New Haven, Connecticut originated as a temporary congestion mitigation project. However, due to its high ridership and local popularity, it has become a permanent commuter rail service (Brock and Souleyrette, 2013). SunRail is expected to reduce the equivalent of one land lane of I-4 traffic through Orlando.

In addition to congestion mitigation, commuter rail was touted as a means of reducing greenhouse gas emissions. The growing number of vehicles on Central Florida roads and the increased idling time due to traffic congestion has had a negative impact on regional air quality (Research Interview: 7). Transportation emissions account for sixty percent of the air pollution in the Orlando metropolitan airshed. Orlando is currently at the threshold of being designated an ozone non-attainment area by the EPA, which would bring punitive fines and restrictions.

Increases in ozone levels, due to the increased volatile organic compounds (VOC), nitrogen oxide (NOx) and sulfur oxide (SOx) emissions, in any of the four counties in the Orlando metropolitan airshed would put the entire metropolitan area into noncompliant status. Currently, Orange County has the highest ozone level at 71 ppb; with the EPA standard for non-attainment at 75ppb (Cooper and Ross, 2011). Given the increased congestion and the risk of EPA non-attainment status, local planners have presented commuter rail as the best option to accommodate diverted I-4 commuters and reduce emission levels. These issues are tangible and are readily relayed to the larger Central Florida community, helping planners rally public support for SunRail. Planners and policymakers interviewed claimed that selling the idea of SunRail to someone in the region

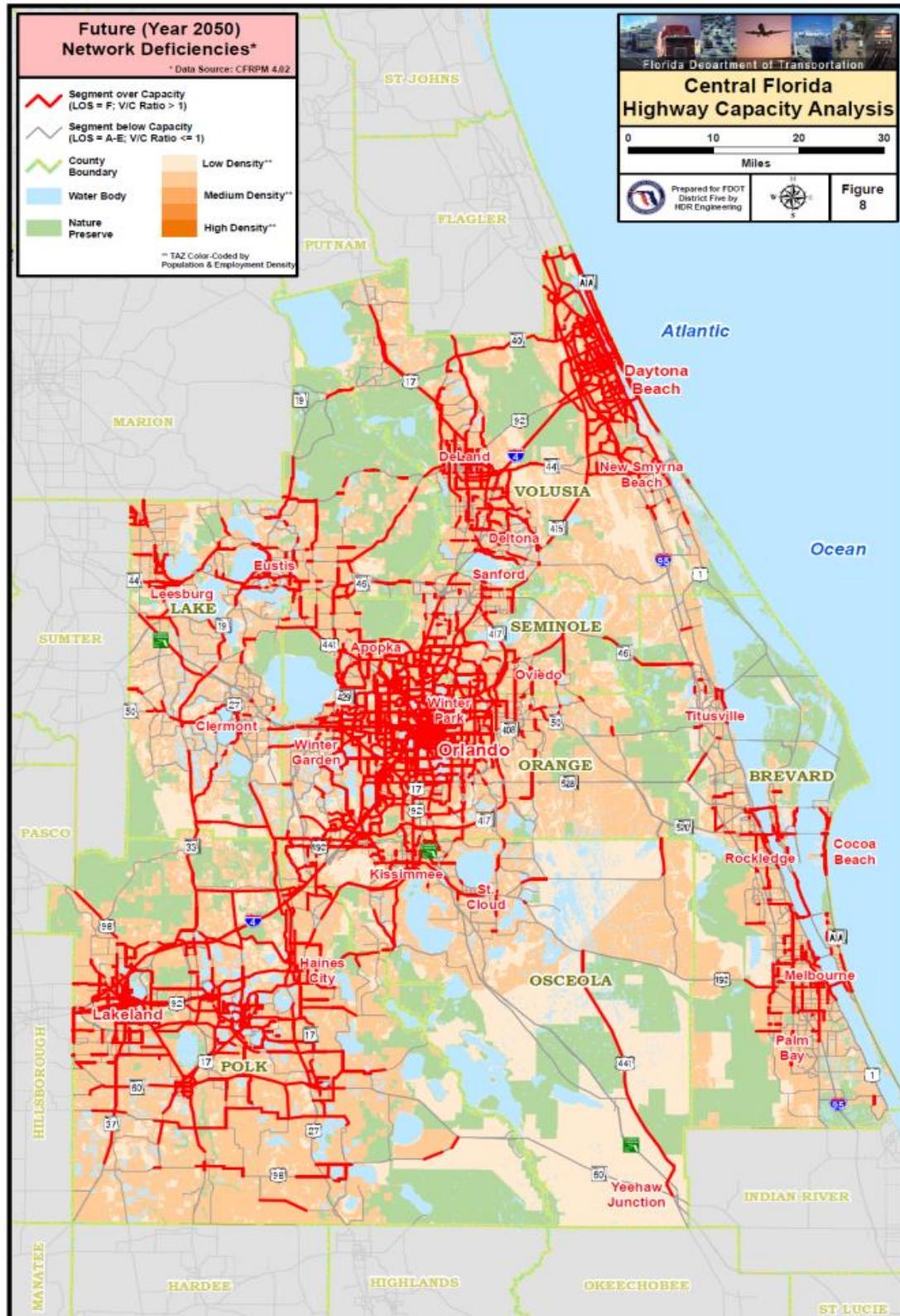


Figure 3: 'Blood Map' of Roadways Projected Over Capacity in 2050 'Blood Map' of Roadway

Projected Over Capacity in 2050
(Florida Department of Transportation)

who does not live, work or own property near the commuter line is difficult. But a narrative framed as less traffic congestion across the metro area and better regional air quality is more likely to garner public support (Research Interview: 2, 20, 23).

The Politics of Financing SunRail

In 2007, the Central Florida commuter rail system began to take shape as FDOT, FTA and local officials began the process of establishing SunRail. Early in the year FDOT completed the EA for the commuter rail corridor and the FTA approved the initial 54 miles of the locally preferred option from the state's alternatives analysis study. With the project moving forward, local officials began establishing a political and financial structure for the five local governments involved in SunRail. The county governments of Orange, Osceola, Seminole, Volusia and the City of Orlando all voted unanimously to establish a local inter-governmental body, the Central Florida Commuter Rail Commission (CFCRC). The body would act as the governance structure to represent each local government as SunRail moved forward. The agreement also established how the local cost for the initial capital funds and operations and maintenance (O&M) would be divided among the counties and the city. On August 29th, 2007 the CFCRC met for the first time and elected Orlando Mayor Buddy Dyer as the committee Chair (Orlando Mayor's Office, SunRail Timline, 2011). In addition to a CFCRC governance committee, dubbed the Governing Board, the agreement also established a Technical Advisory Committee (TAC) to allow county and city planners and engineers to work with FDOT on technical specifications.

As with most new start commuter rail systems, one of the most difficult aspects of establishing SunRail was the acquisition of right-of-way (ROW) for the track infrastructure. Private freight carriers fiercely protect their track infrastructure, their legal rights to the rail corridor and their ability to meet current and future capacity demands (Brock and Souleyrette, 2013). The ability to grow the company's market share, via hauling aggregate freight and finished commodities, is most directly limited by their infrastructural capacity, including track capacity and rolling stock. As such, CSX and other Class I freight rail carriers are hesitant to sell or lease track ROW for fear that it will encroach on the carrier's ability to meet future capacity needs.

In 2006, Governor Jeb Bush's administration negotiated an Agreement in Principle to purchase the SunRail corridor as part of a larger statewide plan to upgrade railroad infrastructure in Florida. The entire package would have cost the state \$491 million and included the 61.5 miles of SunRail Corridor, relocating the CSX Taft Yard to a proposed intermodal logistics center

(ILC) in Winter Haven, S-Line track improvements, public infrastructure investment to better connect the ILC, five new at grade crossings throughout the state and purchasing the rail corridor for South Florida's Tri-Rail system (FDOT, Principle Agreement, 2006). However, the deal was not authorized by the Florida Legislature due to concerns regarding the stipulation within the agreement that the state had to completely indemnify CSX for any accident on the commuter rail corridors. In addition to liability indemnity, the State would also be agreeing to insure CSX up to \$200 million, with a \$10 million deductible, should an accident occur within the state owned corridor (Mayor's Office, SunRail Timeline, 2011; FDOT, Principle Agreement, 2007; 2006; Research Interview: 3, 4, 9, 12, 22). The agreement was initially signed in 2007 but required legislative approval and a state bill with specific funding and liability provisions.

The bill was stalled, in part, by strong opposition from state Senator Paula Dockery of Lakeland, the Railroad Workers Union and the Florida Trial Lawyers Association. Dockery's initial objection to the project was that more CSX trains would run on the alternate S-Line through downtown Lakeland, making the area congested and unsafe. She argued that the project, which would not provide commuter rail service to Lakeland, would expose the residents of Lakeland to an unjustified burden (Tracy, February, 2009). As a secondary concern, the republican state senator objected to the amount of money being paid to CSX and the general cost of the projects. She was joined in this battle by the Downtown Lakeland Partnership, a group of boosters lead by Julie Townsend (*ibid*). While championing the opposition to SunRail, Senator Dockery drew the ire of both Republicans and Democrats for some erroneous cost projections and misrepresentations of actual system costs (Editorial, February, 2009; Simmonds, February, 2009). Some SunRail proponents questioned Senator Dockery's motives, pointing to her husband, C.C. 'Doc' Dockery. C.C. Dockery personally spent millions of dollars to establish early studies and designs for a HSR system under the Bush administration; however, Governor Bush pulled his support in favor of a Central Florida commuter rail system, leaving C.C. Dockery as a very vocal opponent of the SunRail project (Tracy, April, 2009).

The AFL-CIO and the Brotherhood of railroad Signalmen mounted opposition to the SunRail legislation to purchase the ROW from CSX. The unions objected to the bill, as a transfer from CSX operations to a state operation would transition existing union jobs to non-union positions. Union representatives called this bill "government sanctioned union busting" and were hoping to include a provision in the bill to protect union jobs (Tracy, April, 2009). The union opposition held sway with many of the Democratic senators in Florida and bolstered the opposition to the SunRail bill. The Florida Trial Lawyers Association was also against the legislative bill to indemnify CSX on the commuter rails corridor. The association objected to the

bill's attempt to restrict lawsuits against the SunRail system operator and the powerful lobbying group proved effective at defeating the bill (Tracy et al, January, 2009).

During the last day of the Florida Senate session for 2008, the liability provision bill was soundly defeated, leaving the state's acquisition of the commuter rail corridor in legislative limbo. With state Republicans outside of Central Florida rallying around Dockery's opposition and Florida Governor, Republican Charlie Crist, only half-heartedly pledging his support for the measure the day before the vote, a majority of Republicans' voted against the bill. Strong union opposition was the rallying point around which the majority of Democrats voted against the commuter rail bill.

During the 2009 legislative session, the governor was a fairly vocal proponent of Sunrail and gave project supporters hope for the bill on the second vote. In an effort to gain more support in the senate, the bill was proposed with no restriction on liability lawsuits. This change led to the Florida Trial Lawyers Association dropping their opposition to the bill prior to the start of the session (Tracy et al, January, 2009). While members of the Central Florida delegation tried to court the unions favor with several proposed compromises, they were unable to win the support of the unions. The bill found support – and opposition – not along party lines but rather by geographic divisions of the state. Most supporters were from Central Florida and the Orlando area, with the exception of the Lakeland delegation. Most opponents of the measure were from the northern part of the state, specifically the panhandle area. South Florida was split into two factions, based on the perception of how the bill would affect the Tri-Rail system in Miami. To sway the favor of South Florida representatives, the second iteration of the bill had included a somewhat controversial amendment that would have provided a \$2 fee on rental cars in the Tri-Rail counties, which would go to fund the Miami system's deficit. Some senators from the region thought this would be a good way to add much needed funds to the faltering system, while other South Florida senators saw SunRail failure as a means of opening up a pool of money to fund Tri-Rail outright.

The idea that there was a state account with large amounts of SunRail funds that could easily be transferred to fund other state projects was another further hurdle for the bill. During a senate committee vote, Gary Siplin, one of Orlando's State Senators, voted against allowing the bill to reach the floor. He claimed that he could not vote for SunRail spending when the money could be transferred directly into an education fund (Deslatte, March, 2009). The Orlando Democrat's last minute breaking from regional ranks drew the ire of SunRail proponents. The idea that commuter rail project money could be easily transferred to education was something that had been continuously perpetuated during the debate on funding SunRail. However, with much

of the FDOT funding coming from transportation dedicated pools of money, this money had to be used for transportation infrastructure and could not be shifted to education funding. This type of confusion swirled around the bill throughout the 2009 legislative session.

While the opponents of SunRail worked to maintain their vote count, which would be good enough to defeat the rail acquisition and liability legislation, SunRail backers redoubled their efforts. Orlando Mayor Buddy Dyer was a SunRail advocate from the very start of the commuter rail project and worked more than anyone to secure the new transit system. The Democratic mayor, a Brown University educated civil engineer and Orlando native, saw SunRail as the paramount project of his political legacy (Research Interview: 22). The mayor worked well across party lines, as Republican legislators were the driving force behind the SunRail legislation.

The transit project had a powerful friend in the Winter Park state representative and ascending 2010 Speaker of the House Dean Cannon. As a member of the republican leadership and influential leader in Central Florida, Cannon worked to ensure the bill would once again pass the House (Tracy, February 22, 2009). Mobilizing support in the state Senate was a far more difficult task, even with three influential republican senators supporting SunRail. Senator Lee Constantine of Altamonte Springs was the chair of Senate transportation committee and introduced the bill in 2008 and 2009 (Deslatte, February, 2009). During the 2009 senate session, Mike Haridopolos of Merritt Island was a supporter of SunRail and worked with Mayor Dyer and Orlando State Senator Andy Gardiner to get Governor Crist's vocal support (Editorial, February, 2009). In 2011, Haridopolos was president of the state Senate and seeking a bid for the US Senate. In an attempt to curry favor with Florida's tea party republicans, Haridopolos changed his position on SunRail and sent Governor Rick Scott a letter in support of terminating the SunRail project due to its financial risk (Zink, June 24, 2011).

At the national level, SunRail enjoyed the support of two members of the Florida delegation to the US House. Representative Corrine Brown was the chair of the House subcommittee on railroads and was a strong SunRail supporter. The democratic US representative, from the gerrymandered district 5 that runs from Jacksonville to Orlando, worked with republican Representative John Mica to secure federal funding for the commuter rail project. Mica, representing the 7th district running from Winter Park to Deltona, was the ranking minority member of the House transportation and infrastructure committee. He worked to reassure skeptical Florida legislators that the FTA funds for SunRail would be approved as long as the state senate approved the commuter rail bill. While elected officials worked to lobby their colleagues, local booster groups were working to trumpet the economic benefits of commuter rail.

The importance of this project to local politicians and boosters was summed up the FDOT project manager:

“What I am hearing for the locals, is that this is sort of their legacy project. They feel that this will transform the region the way I-4 transformed the region....I-4 was put in place in the 60s. Before than Orlando was a dot on the map. There was cow pastures and stuff like that. When I-4 came through, Disney did too.” (Research Interview: 5)

In particular, the Central Florida Partnership (CFP) and MyRegion worked to lobby state legislators, local policymakers and the local business community to support a project with the potential to be transformational and provide supporters with a political legacy. The two booster groups were longtime proponent of commuter rail and linking the Central Florida area with alternative transportation, dating back to their earlier growth management and super region studies (see Chapter 2).

Finally, on May 1st, the liability legislation was put to a floor vote and again it was voted down. After failing to secure the needed 21 votes for the second time, most thought the issue was closed and that SunRail would be yet another failed Orlando rail project. The commuter rail project, however, got one more spark of life as an opportunity for a second rail transit system was presented to the region in the spring of 2009. Increased federal interest in high speed rail (HSR) allowed Central Florida to revisit a dormant plan to establish a HSR system in the region. The HSR project and SunRail would complement one another by providing the opportunity to integrate local commuter rail with a regional high speed rail system. As part of the Obama administration’s economic recovery plan, the federal government unveiled a national plan to provide \$11.5 billion over three years to fund HSR projects across the country (FDOT, SunRail Timeline, 2011). As with the previous attempt to establish a HSR project, local and state officials still thought that a Tampa to Orlando to Miami high speed passenger rail system would be the most ideal route given much of the initial EA and AA studies has been conducted during Governor Bush’s administration. With federal HSR funding on the line, the SunRail project became politically tethered to HSR. The Obama administration was backing SunRail and made it clear that failure to secure the destination side connectivity provided by the commuter rail system would hinder the state’s chances at TIGER stimulus grants for HSR.

Political Coupling of SunRail and High Speed Rail

Many state officials, believing they had the ‘shovel ready’ type of project the Obama administration was looking for, began to publically court this new HSR funding. The state

legislature, however, was delaying SunRail over issues of liability and infrastructure funds, sending mixed messages about Florida's commitment to commuter rail. Concerned that a prime candidate for a new demonstration high speed system was faltering, the US Transportation Secretary, Ray LaHood, and the head of the FTA, Peter Rogoff, visited Orlando in October (Tracy, Senators Told, 2009). The secretary's message was clear as he told local officials that Florida must "get [their] act together" in regards to rail transit (*ibid*). Implied in the message was that the Orlando-Tampa HSR project was an administration favorite. More bluntly, the secretary noted that if SunRail was not moving forward, it would be very unlikely the region would get any federal funding for a high speed system (Editorial Staff, October 7, 2009).

Later that month, Florida filed an application with the US DOT to receive funding for the first phase of a statewide HSR corridor (Orlando Mayor's Office, 2011). The three phase HSR plan would have connected Tampa to Orlando in Phase I, Orlando to Miami in Phase II, and an ambitious Phase III that would establish a large loop that would connect the central and south Florida sections of the HSR system to north Florida. The first two phases, which were anticipated to be complete by 2017, would connect with the existing Tri-Rail commuter rail system in Miami, the SunRail system that was expected to be completed by 2015, and a future commuter rail that would be constructed in Tampa by 2035 (PennDesign, 2010). Florida's integrated rail plan was grandiose, with officials in Jacksonville Florida considering a commuter rail system in hopes of being the terminus of Phase III of the HSR system.

Addressing the issues of Florida rail transit with local and state officials, LaHood pointed to the delay in SunRail as a pitfall that could cost the state billions of dollars in federal transit funding (Cotey, 2011). Motivated by HSR funding and the prospects of creating approximately 30,000 new jobs, Governor Charlie Crist and Orlando Mayor Buddy Dyer redoubled their efforts to push through SunRail legislation. The governor called a special legislative session to vote on rail issues for the entire state of Florida. The Florida Rail Bill included the SunRail liability provision, and approved the CSX rail purchase, money to fund track infrastructure upgrades and state funding to keep Tri-Rail out of a deficit. With state money on the table and the federal government threatening to hold Tri-Rail accountable for half a billion dollars of transit grants if it ceased operations, the South Florida delegates agreed to the funding package. After a last minute deal to guarantee the protection of current union jobs, the AFL-CIO agreed to drop their opposition to the projects. This unlocked the votes of north Florida democrats to vote in favor of the bill. The legislation quickly passed the house and went through the senate committees at a rapid pace (Tracy and Deslatte, December 2009).

On December 8, 2009 the Florida Rail Bill was passed in the special legislative session and was signed into law by Governor Charlie Crist eight days later at a signing ceremony at Church Street Station in downtown Orlando (Mayor's Office, SunRail Timeline, 2011; Tracy et al, December, 2009). The Florida Rail Bill established the Florida Rail Enterprise, a quasi-public entity, to coordinate all passenger rail in the state – commuter rail, light rail and high speed rail. To complement the Florida Rail Enterprise, the Passenger Rail Commission was created to advise FDOT on passenger rail and created a mechanism for dedicated passenger rail funding (MetroPlan, TransForum, 2010).

With the passing of the Florida Rail Bill, the funds for purchasing the central Florida commuter corridor and track infrastructure were put into escrow pending federal funds from the Full Funding Grant Agreement (FFGA) being submitted to the FTA. With the liability issues with CSX finally settled, FDOT thought they had a complete FFGA application that was submitted to the FTA early in 2010. However, one contract was not finalized and it took a year for the final FFGA to be approved. FDOT had failed to finalize an agreement with Amtrak, which lead to a liability dispute between FDOT and Amtrak. Having seen the CSX indemnity deal, Amtrak wanted a liability package with the state of Florida similar to the one given to CSX (Tracy, October, 2010). That dispute was ultimately resolved with Amtrak agreeing to a lesser liability package very similar to the original deal Amtrak had for the corridor with CSX. The deal was brokered by Representative John Mica, a US Congressman, who sat on the House transportation committee. With the mid-term elections completed, Mica was preparing to become the chair of the transportation committee, which oversees federal funding of Amtrak. Using this extra leverage, Transportation Secretary LaHood and Mica were able to reach an agreement with Amtrak in December (Tracy, December, 2010). That agreement was the final step before FTA could officially approve the FFGA.

In January 2010, Florida was awarded \$1.25 billion to begin construction on the first section of HSR between Tampa and Orlando (Orlando Mayor's Office, SunRail Timeline 2011; Tracy, January, 2010). Both local boosters and federal officials lauded the HSR project, noting that it would serve as a highly visible project and expose the millions of tourists going through the region to the benefits of HSR. The route would start at the Orlando International Airport (OIA) and head west down the I-4 median to downtown Tampa. To maintain the highest speed possible, only a few stations were designated along the corridor. Stations were planned at the Orange County Convention Center, Walt Disney World - or an adjacent Osceola County property – and Lakeland. With speeds up to 168 mph, the entire trip would take less than one hour (MetroPlan, TransForum, 2010). As with high speed rail projects of the past, Walt Disney World

tacitly weighed in with their approval and offered to donate 50 acres outside of Celebration for a station (Healy, February, 2010).

With both SunRail and the HSR system underway, the problem for local planners became how to efficiently integrate these two systems (Tracy, February, 2010). While the broader Florida rail vision had a HSR system that connected with localized commuter and light rail systems across the state, a detailed and well-articulated regional plan had not been drafted. SunRail and Orlando-Tampa HSR had been designed and planned in isolation; designed by different agencies and booster coalitions at different times. It was envisioned that these systems would be built sequentially with at least a decade between them. The need to design a site to connect both systems was viewed as an issue for the future, which could be solved in the design of the second system. However, with both projects going forward concurrently – for at least a brief time – that problem became a pressing issue. Both systems had required an environmental assessment and FTA corridor approval which if changed would result in years of delays. Given the new fast tracked schedule, the only options to link the two systems were a dedicated express shuttle or a new connector rail. A plan had been in the works that a connector line could be added to link OIA with a full-build SunRail system. The plan would reappropriate a defunct coal line that would connect the planned Medical City development, the Orlando International Airport and a downtown Orlando SunRail station. This connector provided the option to connect SunRail and HSR at the OIA rail station (Research Interview: 15). However, local officials and planners tempered expectations by noting that express shuttle buses between OIA and downtown would be the first means of connecting the two systems.

When a second round of funding became available in the summer of 2010, Florida applied for an additional \$1.12 billion of federal funding, which would have allowed the HSR project to be largely funded by federal infrastructure grants (Orlando Mayor's Office, 2011). In a political irony, it was state republicans, who had criticized the Obama administrations stimulus funding package, leading the state's efforts to attain federal HSR funding. Governor Charlie Crist led a group of US and State legislators to ensure Florida received as much federal HSR and commuter rail funding as possible. That would all change, however, in the 2010 gubernatorial election.

Florida Rail and Tea Party Politics

After the midterm elections the fate of Florida's rail vision was passed on to a new session of lawmakers, including Tea Party Republican Rick Scott who was an opponent of HSR in Florida. As part of a national wave of anti-Obama sentiment, Scott campaigned against what he dubbed 'Obama Rail' and the use of federal funds to build a HSR system in Florida. Running on a Tea Party platform centered on fiscal austerity and limited government, the candidate vowed to carefully examine the costs and benefits of the Tampa to Orlando HSR system before deciding how to proceed (Tracy, November, 2010). Scott eventually softened his hard-line stance on rail in an effort to court Central Florida voters (Tracy and Deslatte, January, 2011). Scott won the election by a narrow margin –67,000 votes out of the 5.1 million votes cast – on the promise of 700,000 more private sector jobs in the state (Editorial Staff, November, 2010). He also promised a higher return on investment (ROI) for future public spending (*ibid*).

With the election of Scott, Central Florida SunRail supporters braced for a new challenge to the commuter rail system. Outgoing governor, Charlie Crist, worked with legislators to get as much of the SunRail and HSR mechanism in place as possible between the November election and the new administration in January. The escrow closing was expedited in an effort to finalize the SunRail land purchase before the end of the Crist administration. CSX and FDOT closed escrow on the central Florida commuter rail corridor right-of-way on December 30, 2010, prior to the FFGA being officially approved (Mayor's Office, SunRail Timeline, 2011).

Scott took office on January 4th, 2011 and soon after mandated that all state projects that exceeding \$1million be put on hold for further review and cost-benefit analysis (Tracy and Deslatte, January, 2011; Orlando Mayor's Office, SunRail Timeline, 2011). This put both HRS and SunRail in a precarious hiatus. While the cost-benefit analysis of the high speed rail system had been in the works since the campaign, Scott's decision to put all public works project on hold was not anticipated by state planners. Earlier that same day, the FDOT representative to the SunRail Governing Board reported that the governor was expected to approve the commuter rail contracts the following week (*ibid*). Within hours of that meeting, the SunRail contracts were frozen until further review (*ibid*). Local leaders and state legislators representing Central Florida, both Democrat and Republican, expressed their dismay and irritation over SunRail's hiatus and the potential termination of the project.

Like Governor Scott, Tea Party conservatives in other states were terminating large transit projects and rejecting federal funding for transportation infrastructure. New Jersey's Chris

Christie, Wisconsin's Scott Walker and John Kasich of Ohio each stopped high visibility rail projects on ideological grounds (Thomas, November, 2010). Local HSR supporters pointed to Scott's campaign promise of job creation and highlighted the number of jobs the two rail projects would create – with HSR construction expected to create over 23,000 jobs and the early phase of SunRail projected to bring 6,700 new jobs to the state (Tracy, February, 2010). Despite calls to move forward with the Orlando-Tampa HSR project, Scott declined the federal funds on March 18th.

At the request of a bipartisan Congressional delegation from Florida, Secretary LaHood extended the deadline for a week, in what was publically cast as an opportunity to allow Scott to rethink his decision. In reality, however, this delay allowed two state legislators to file a suit against the governor with the State Supreme Court. With an expedited timeframe, the justices quickly heard the case and ruled that Scott was within his rights as governor to refuse federal funding that had not yet been acquired and incorporated into an approved state budget (Tracy and Deslatte, March, 2011; Tracy, May, 2011). With the project officially rejected by the State of Florida, US Senator Bill Nelson asked Secretary LaHood to put the \$1.25 billion encumbered for the project back out for re-bid. The local governments of Orlando, Tampa and Lakeland were working on creating a consortium that could be eligible to apply for the HSR funds in an effort to circumvent the state. Ultimately, however, this plan would require approval from FDOT and the governor, as the state owned right-of-way along the I-4 median had to be acquired. (Deslatte and Tracy, March, 2011; Orlando Mayor's Office, SunRail Timeline, 2011). Governor Scott and FDOT made it known they would not approve any application to cede the state highway median right-of-way to the consortium of local governments. With this final failed attempt, the HSR project was fully terminated, adding to Florida's myriad of failed rail transit projects.

In February 2011, Scott mandated that a full ridership study be publically distributed so that citizens from around the state could comment on the SunRail project. This allowed local boosters and SunRail supporters in Central Florida the opportunity to rally around the project. A large group of regional boosters from the entertainment sector, property development, health care and local government sent letters of support for SunRail to the governor and the state transportation secretary (Letters of Support, 2011). The packet of letters, sent in May, 2011, outlined the plans and the capital investment to which each organization has committed, should SunRail be established. To supplement the 18 entities that sent these formal letters to Scott, Orlando Mayor Buddy Dyer compiled a list of 80 SunRail supporters, including private businesses, chambers of commerce and municipalities. Leading up the governor's final decision, corporate boosters, such as Disney, Florida Hospital and Tupperware, held private meetings with

Scott to discuss their support for SunRail (Editorial Staff, July, 2011). While commuter rail proponents in Central Florida were rallying support and trying to make the case that the governor should reauthorize the projects, the FTA submitted the approved FFGA for a 60 day Congressional review, which would provide final authorization for project funds (Orlando Mayor's Office, SunRail Timeline, 2011). As the federal review process neared completion, pressure began to mount for Scott to make a decision about SunRail.

During the spring, there was a quiet confidence in Central Florida that SunRail would be reauthorized. Orlando Mayor publically noted that the governor's cursory budget had allocated funds for 'rail development grants' and 'public transit development grants', each budgeted for over \$250 million (Tracy, February, 2011). Others pointed to Scott's ties to CSX, as Scott's top advisor was previously the lead general counsel for CSX and his lieutenant governor was a representative from Jacksonville (Tracy, March, 2011; Research Interview: 1). The CSX corporate headquarters is located in Jacksonville and is an important component of the local economy in northeast Florida. The first of four suspended SunRail contracts to be approved was the \$173 million allocated to purchase the CSX right-of-way, which was approved four months prior to the other four contracts (Tracy, February, 2011). Former transportation desk journalist for the Tampa Tribune, Billie Townsend, stated "Governor Scott is not about to stand in the way of a massive tax giveaway to private industry. That's what he does. That's what conservatives elected" (quoted in Tracy, March, 2011). Susan MacManus, a professor of political science at the University of South Florida, speculated that given the administration's agenda the opportunity to improve the private freight network could compel Scott to reauthorize SunRail (*ibid*).

Another reason that SunRail supporters felt optimistic was the pending court case on the governor's power to unilaterally stop the commuter rail project. Although Scott had won the legal challenge to terminate the HSR project, the circumstances were different in the SunRail case. A challenge was filed with the Florida Supreme Court to determine if Governor Scott could legally stop a commuter rail project that had obtained legislative approval, including a land acquisition approved by the state legislature and signed into law by a previous governor. Prior to the reauthorization of the project, local boosters and court observers anticipated a ruling against the Scott administration. By approving the project, Governor Scott was able to avoid losing a visible legal battle with local Florida officials. It was thought by some political pundits that not having the legal option to terminate SunRail, could allow the governor to sidestep a politically charged issue (Tracy, June, 2011). After Scott's decision to reauthorize Central Florida commuter rail, he admitted the likelihood of losing a legal challenge in court since the funds were appropriated (Tracy et al, July, 2011).

In an effort to warn local government of their funding burden beyond year seven, the state transportation secretary, Ananth Prasad, visited six of the local governments in the SunRail commutershed. The trip was designed to have discussions with local officials, project supporters and project opponents and take the feedback to the governor on the eve of his self-imposed deadline. Prasad also took the opportunity to impress upon local leaders that the state was not prepared to provide the kind of \$15 million emergency funding package that Tri-Rail received in 2009. The secretary made it very clear that after the seventh year Central Florida must have dedicated funding to subsidize commuter rail operations (Tracy, June 17th, 2011; Tracy, June 28th, 2011).

Central Florida leaders assured Scott and Prasad that they had spent four years considering the options and studying the project and were well aware of their responsibility (Tracy, June 17th, 2011; Tracy, June 28th, 2011). On July 1st, 2011, Governor Scott and state Transportation Secretary Ananth Prasad officially reauthorized the SunRail project (SunRail, Press Release, 2011; Tracy et al, July 2011). On July 18, 2011, the FFGA was officially approved by Congress and the FTA signed and authorized new start transit funding for SunRail. Secretary LaHood was in Orlando for a signing ceremony on the Florida Hospital campus (Florida Hospital, Press Release, 2011). The project construction began on January 27th, as workers broke ground on Phase I of the commuter rail project.

The SunRail Commuter Rail System: Financing and Transit-oriented Development

The SunRail system, officially designated as the Central Florida Commuter Rail Transit Project by the Federal Transit Authority (FTA) and the Federal Rail Administration (FRA), will operate along a 61.5 mile rail corridor.

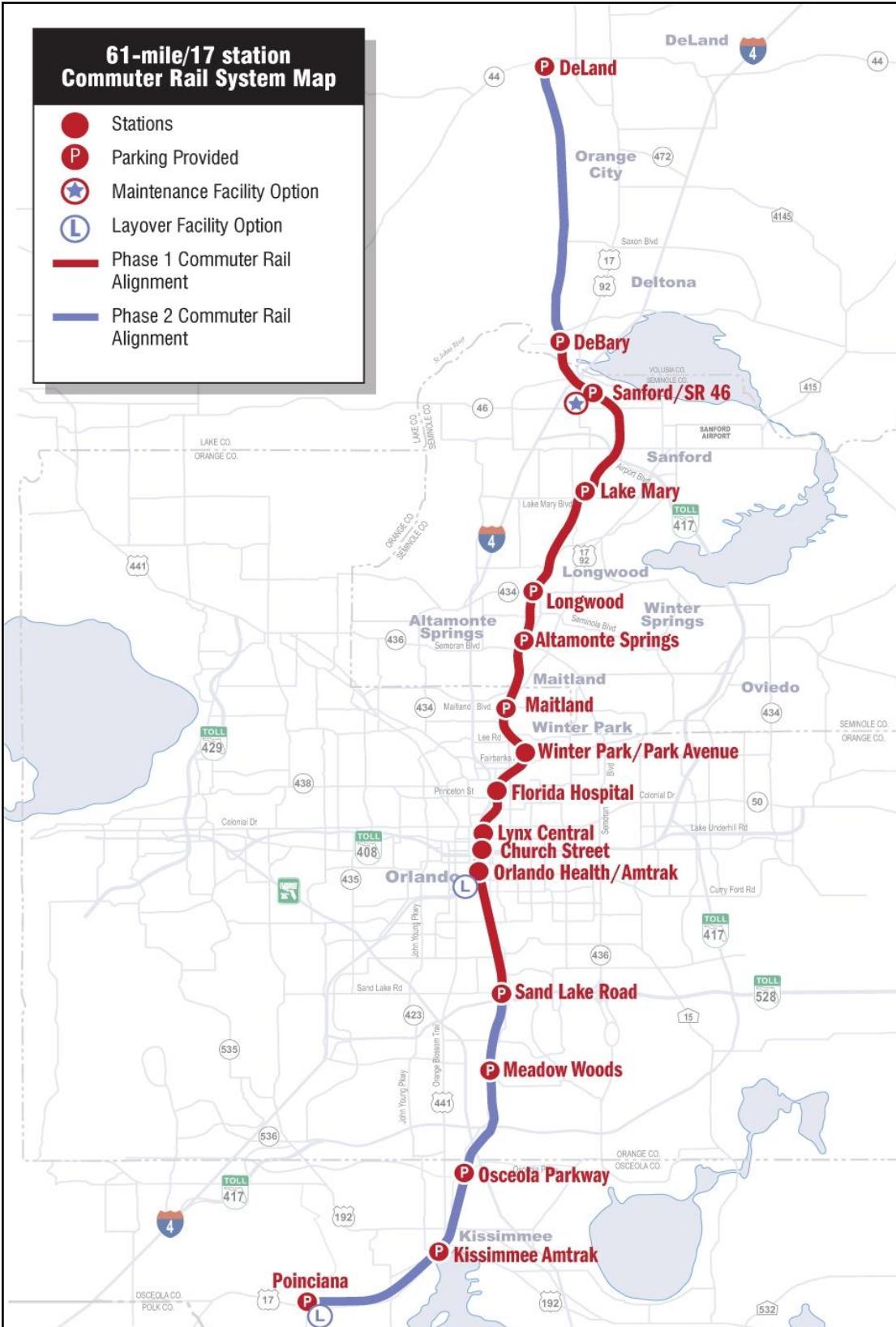


Figure 4: SunRail Route with Stations
(Florida Department of Transportation, 2008)

At full build the commuter rail system will have 17 stations stretching from Deland, Volusia County in the north to Poinciana Industrial Park, Osceola County in the south (FDOT, TMOP, 2012).

As documented in the 2012 FDOT report, *Transportation Maintenance and Operations Plan* (TMOP), the project phases are:

Phase I: The Initial Operating Segment (IOS)

Anticipated Completion Date – May, 2014

The first phase will provide the core of the SunRail commuter rail system, as 12 stations and 32 miles of track are expected to become operational by 2014. This section of the system will connect the DeBary Station in Volusia County with the penultimate Orange County stop at Sand Lake Road Station. The phase I design and operational plan has been approved by the FTA and is receiving federal transit funding. Construction began on January 27th, 2012.

Phase II – South: The Locally Preferred Alternative (LPA)

Anticipated Completion Date – 2016

The phase two southern extension will add an additional 17 miles of track to the central Florida rail corridor, connecting the Sand Lake Road Station to the southern terminus at the Poinciana Station. This phase will add four new stations to the SunRail system. By the LPA completion date of 2016, the SunRail system will have a total of 16 stations and 49 miles of operational track. Phase II – South is currently under review for final design and operations approval from the FTA.

Phase II – North: Full Build Alternative

Anticipated Completion Date – 2016

This phase will add an additional 12 miles of track and one station. This phase will extend system operations north from the DeBary Station to connect to the Deland Amtrak Station. FDOT, local planners and the FTA are currently exploring funding options for the Phase II – North project. The FTA has not given the final design approval for northern extension, but the project was approved in the original NEPA report. Construction is tentatively planned to begin in 2014 with a target completion date of 2016. It is anticipated that this phase will be completed after the LPA extension to the south.

SunRail Financing

SunRail, like all public transit entities, will require public subsidies to maintain commuter services. SunRail opponents, such as local Tea Party chapters, highlight the need for subsidies as one of the primary problems with SunRail. Many local planners and policymakers admit that SunRail will operate at a deficit, but are quick to note that no public transportation services are revenue generating (Research Interview: 2; 3). Planners also point out that public transit systems,

while not financially self-sustaining, generate more direct revenue than highways and roadways. An Osceola County commissioner explains that the roadway costs go unnoticed by the public, whereas, the large cost of transit projects becomes very visible in the public debate:

“That is one of the things people get lost on when we talk about mass transit and the cost of mass transit. I was talking to a group last night and they asked me, ‘what city in America makes money off mass transit?’ And I said, ‘what city in America makes money off their roads?’ I said, ‘neither one of them and they are both subsidized by government’, but that argument gets lost so often. People forget that roads are not only expensive to build, but expensive to maintain....and those costs nobody sees. Nobody puts them out there because we assume that is just the cost of doing business. Whereas, with mass transit folks love to say, ‘you’re subsidizing those folks, because I am never going to ride that bus’.” (Research Interview: 2)

When road costs are brought to the forefront of the debate the claim is made that fuel taxes act as a user-fee for roadways. However, a large portion of Florida road funds come from the state general fund not the Highway Trust Fund (Research Interview: 1; 2).

SunRail financing is structured to accommodate a system of larger state investment during the initial establishment of the system and then to relinquish funding responsibilities to the local governments. The initial investment for the property and right-of-way (ROW) along the commuter corridor was purchased by the state of Florida. Initial capital investment for the construction and rolling stock acquisition is being funded by federal, state and local monies. The first seven years of operations and maintenance is being funded by FDOT, with year eight and beyond being subsidized by the counties of Orange, Osceola, Seminole, Volusia and the City of Orlando.

The acquisition of right-of-way (ROW) for the Central Florida Commuter Rail Corridor was purchased from CSX Transportation (CSX) with state funds. The State of Florida purchased 61.5 miles of track infrastructure and the ROW envelope from CSX for \$432 million (FDOT, SunRail Brochure, 2011). The federal, state and local levels are financing portions of the planning process and the initial capital for infrastructure acquisition and upgrades. The initial planning reports, such as feasibility studies, alternatives analysis reports and environmental assessments, have been funded through Federal Transportation Administration (FTA) transit new start funds, FDOT funding and local economic development funds. The infrastructure investment – including track improvements, purchasing rolling stock, establishing stations and new signaling and dispatching infrastructure – are being 50% federally funded, 25% state funded and 25% locally funded (FDOT, Quality Time, 2006). Federal funding is being distributed by the FTA; state funding is being administered by FDOT; local funding is being secured through an

intergovernmental agreement between Orange County, Osceola County, Seminole County, Volusia County and the City of Orlando. The estimated cost of all these capital investments, excluding the ROW purchase, is \$615 million (FDOT, SunRail Brochure, 2011). The local governments are being offered a low-interest loan from the State Infrastructure Bank (SIB) to contribute to their portion of the initial capital investment. Seminole County has been adamant about not taking a loan from the SIB and began setting aside funding to pay their portion before the project's official state approval.

The initial capital development contribution of each local government is based on the number of stations in each county or city. Accordingly Orange County is funding over \$40 million in capital investment; Osceola County will contribute over \$27 million; Seminole County will pay over \$46 million; Volusia County will fund over \$26 million and the City of Orlando will pay over \$13 million. FDOT will match each of these contributions on a one-to-one basis, thereby providing the additional 25% of funds required for the project. Each county's contribution includes engineering costs, station property acquisition, final design cost and construction cost for each phase of the project (Interlocal Funding Agreement, 2007).

All of the operation and maintenance (O&M) cost, estimated at \$23.2 million annually for the first phase and \$30.3 million at full build, will be funded by the FDOT for the initial seven years (FDOT, Management Plan, 2008). The consortium of local governments will assume the O&M cost from the eighth year onwards. Orange County has encumbered \$2 million of the county's annual \$1 billion budget for their contribution to SunRail O&M. According to the 2006 Principle of Agreement, as presented to Seminole County officials, the first plan was for the state to offer the local SunRail consortium \$173 million in low-interest bonds to fund the first seven years of O&M (FDOT, Principle Agreement, 2006). When it was decided that FDOT would fund the first seven years of O&M, the local governments were each offered ten year, low-interest loans by the SIB – at a 1.5% interest rate – to fund their share of the initial capital investment (FDOT, Management Plan, 2008).

Once revenue operations begin for SunRail, the annual funding sources for O&M are expected to be funded by: fare box recovery (20-30%), federal transit funding (30-45%), ancillary revenues (2-3%) and subsidies (22-48%). Subsidies are the state funds, in the first seven years, and the local funds in year eight and beyond, that will complete the cost of operating SunRail (SunRail, Website, 2012). Ancillary revenues include advertising revenue and revenues from food and beverage vendors on the train and at the station. Fare box revenues are forecasted based on the predicted ridership, calculated from FDOT and MetroPlan ridership models. The FTA requires a specific threshold of cost per ride for a rail transit system to be deemed financially

feasible. SunRail was initially under the required cost point, so the state planners added the Church Street station to the plan. By adding an additional stop in the heart of the downtown entertainment district the ridership projection increased enough to cross the cost-per-ride threshold (Research Interview: 20, 21). There is a chain link effect of ridership – if a station fails to attract the anticipated ridership at it will impact the ridership and functionality of the whole system. (Research Interview: 23).

Shared Corridor and Right-of-Way

As reflected in the history section above, the right-of-way negotiations between FDOT and CSX Transportation were contentious over two issues: acquiring access to CSX owned rail infrastructure and the State of Florida's liability on the commuter rail corridor. This dispute delayed the project by two years; however both parties reached a compromise sufficient for FDOT to purchase the track infrastructure and right-of-way envelope adjacent to the tracks. FDOT took possession of the tracks on November 3, 2011 and all rail operations were transferred from the CSXT Safety Coordination Center to the new Central Florida Rail Coordination Center adjacent to the SunRail station at Altamonte Springs (FDOT, Monthly Progress Report, 2012). The ROW purchase agreement required FDOT to double the track almost the entire length of the SunRail corridor, ensure CSX total indemnity from accident liability and to maintain both the track infrastructure and the ROW envelope. The Florida legislature required CSX to reinvest all revenues from the acquisition back into CSX infrastructure and operations in the state of Florida and to cede control of train dispatch functions to the SunRail system (Research Interview: 10). CSX retains the exclusive rights to purchase freight easements on the corridor in perpetuity (CSXT and FDOT Agreement, 2007; 2010). The results of the ROW agreement create a new spatial freight distribution pattern, as nine CSX freight trains a day will now move to south Florida using a state upgraded alternative freight line.

Included in the corridor infrastructure upgrades, FDOT will build an additional 40 miles of a second parallel track to complete the existing 19 miles of double tracking along the corridor (FDOT, TMOP, 2011). Once this upgrade is complete 59 miles of the 61 mile rail system will be double tracked, which will provide enough capacity for commuter rail operations, Amtrak intercity passenger rail operations and CSX Transportation freight operations. Two small sections of the system, a bridge across the St. Johns River in Volusia County and a small control point section of single track located within downtown Maitland in Orange County will have to remain single track, as the right-of-way envelope is not wide enough to allow for rail expansion

(ibid). Members of the FDOT project team note the importance of a double tracked system for building a sustainable ridership base. The Tri-Rail system had single tracking when it began operations causing commuter rail and freight rail delays as trains had to queue up on side tracks and wait on trains ahead of them. These delays decreased ridership as passengers got frustrated waiting. FDOT planners were insistent that SunRail have double tracking from the first day, to avoid any problems with delays and future capacity needs (Research Interview: 5, 6).

Transit-oriented development and Connectivity

Connectivity to and from the rail stations is paramount for a successful commuter rail system and transit-oriented development centers. Without destination side connectivity, such as regular and frequent bus services radiating from the station, most commuters are limited to a half mile radius around the station. Extending a transit-oriented development (TOD) area beyond the half mile pedestrian zone requires increased transit connectivity, such as regular and frequent bus services radiating from the transit station to facilitate a more interconnected transport system. To facilitate this expansion, frequent circulator buses must connect with the rail station and quickly circulate beyond the quarter mile inner circle and the half mile outer circle of TOD walkability.

In order to facilitate a more connected system, state SunRail planners are working with the local transit authorities Lynx and VoTran. Lynx, the operating name of for the Central Florida Regional Transportation Authority, provides all the public bus services in the three Orlando metropolitan counties (Lynx website, 2012). While Lynx contracts out 17% of their services, mostly paratransit services, the majority of Central Florida transit is publically operated. There were proposals to privatize the operations and management in 2004 and 2010 but those were rejected (Tracy, June, 2010). VoTran, the public transit authority of Volusia County, will serve the northern two SunRail stations. VoTran contracts the management for its fixed route bus services and paratransit operations to McDonald Transit, a private transportation management firm based in Texas (VoTran Website, 2012; Research Interview: 26). As an attempt to establish SunRail as a component of a larger integrated transportation system for the region, the two local transit authorities and the SunRail team are working to provide efficient destination side bus connectivity to SunRail stations.

After extensive commutershed analysis, project planners designated each SunRail station as either a ‘destination station’ or a ‘feeder station’. Destination stations, often located downtown at entertainment districts and hospitals, require more public transportation connectivity, including more bus routes, pedestrian paths and bike lanes. Feeder stations, mostly located in the

surrounding suburban cities, are often only connected with a single bus line and have large park and ride lots. While it is not anticipated that feeders stations will generate a need for more origin sided transit, the destination side connectivity will increase the use of public transit in downtown Orlando.

Currently there are two types of bus services being implemented – local circulators and feeder services. The local circulators will be short loop routes in downtown Orlando that operate frequently and connect downtown destinations and neighborhoods with SunRail stations. Feeder services will have larger routes with longer headways and will serve the general Lynx commuteshed, rather than a localized downtown loop. Recently, Lynx has expanded an existing east-west downtown circulator. The LYMMO circulator system will incorporate additional bus rapid transit (BRT) lines that will connect more downtown neighborhoods and destination venues with three SunRail stations (Research Interview: 20, 22). With all day headways of 10 to 15 minutes, these no charge circulators make the majority of downtown Orlando transit accessible from the SunRail system (Research Interview: 20).

Planning bus transit connectivity becomes more of a concern for feeder stations in the suburbs. Those stations not located in downtown Orlando have fewer feeder buses with less frequent service and longer headways than the local circulators. The SunRail feeder buses that Lynx will operate are being planned along an east-west orientation to connect to the north-south spine that the commuter rail route will create. Currently, Orlando bus routes operate as radials from Lynx Central Station, which is located at the edge of downtown (Research Interview: 20). To accomplish this, Lynx must modify 24 existing bus routes and add additional buses to their fleet. As part of the SunRail startup funding, FDOT will assist Lynx in purchasing new buses that will be required to establish a feeder service for SunRail. Lynx will purchase 16 additional buses for its fleet, which will be funded by a 50-50 cost share between FDOT and the state infrastructure bank (Research Interview: 5, 6, 12). The costs of modifying Lynx bus routes will be funded by FDOT for the first 7 years (Research Interview: 24, 25, 26). The SunRail and connecting Lynx bus services will require a dedicated transit funding source, a measure that local officials have been working on since early 2000. With budget cuts to Lynx and an increasing number of routes needed for commuter rail connectivity, a local referendum for a one cent sales tax has been proposed, although a similar referendum failed in 2003. State legislation that would add a \$2 surcharge on rentals cars in Central Florida to fund Lynx has been defeated twice (Tracy, May, 2010).

An often articulated goal of the SunRail project is to attract ‘choice riders, defined as riders that have a choice of modes for daily transportation but elect to utilize public transit.

Choice riders are contrasted with riders that rely on public transit as their exclusive means of transportation – transit dependent riders. Planners frame choice riders as middle class riders that have the financial ability to own and drive a personal vehicle to work every day, but find benefits and value in taking commuter rail on a regular basis. Local transit planners suggest that many of the choice riders they are seeking to attract would have an automobile and disposable income. While transit dependent riders are expected to be a large and stable ridership base for SunRail, choice riders are the group that can make SunRail sufficiently financially viable to be considered successfully by public policymakers. Attracting and sustaining a portion of choice riders in the ridership numbers will allow the transit system to generate a return on investment, offset operational costs and justify initial public investment in the project. The projected number of transit dependent riders that would use the system is not robust enough to fund the revenue needed to meet the operational budget.

Federal agencies require federally funded transit projects to both (1) address the transportation needs of transit-dependent citizens and (2) develop transit services to attract more middle class suburban riders (Grengs, 2001). The ability to meet both of these goals with a single project requires a planning process that is dedicated to equitable transit access for both transit dependent riders and discretionary choice riders. By focusing on choice riders, the targeted demographic for TOD projects, transit systems are designed to connect areas with the greatest potential for economic growth. While this type of design fulfills the goal of economic development, it has the potential to negatively impact the needs of transit-dependent riders, who compose the majority of the current transit ridership in Orlando.

Conclusion

With a politically contentious history that connected the public debate on Orlando commuter rail with the issue of Florida High Speed Rail, SunRail advocates worked to establish a means to connect the two systems. When the HSR project was terminated and the commuter rail was in a state of political limbo, Central Florida boosters sought to demonstrate the economic impact that SunRail would have on the local and state economy, and specifically its role in job creation. While the narratives employed by SunRail advocates, including planners, policymakers and local business leaders, have always contained a robust economic development component, the narrative continuously changes to meet the political and economic climate. The next chapter examines the narratives planners have used to advocate for SunRail, starting with congestion and environmental mitigation and adapting to the ‘Great Recession’ of 2007 with a more overtly

economic narrative. Transit-oriented development plans have always been at the center of SunRail, as local boosters have sought to reshape the city to entice more inward investment into the region.

Chapter Five

SUNRAIL AS ENTREPRENEURIAL GOVERNANCE: PLANNING NARRATIVES AND TRANSIT-ORIENTED DEVELOPMENT

My interviews with local boosters, planners and policymakers revealed different visions of success for the SunRail commuter rail system. Some thought that high ridership numbers exceeding projections would be the best possible outcome. Others hoped that the system would create a demand for future rail extensions, setting rail expansion as the mark of success for the project. Following a competitive city logic, several boosters and regional policymakers envisioned SunRail as a crucial step in the process toward making Orlando a ‘world class’ city that could compete for global investment and a site for future world showcase events. Every interviewee took time to espouse the positive economic impact expected from a new commuter rail and how a successful SunRail system would spur economic growth in the region.

Exploring the ways in which SunRail success is explained by local business elites, regional planners, municipal officials and county policymakers provide a means for unpacking the regional planning vision, a set of narratives put forth by local boosters to (re)shape the urban form and public policies in a metropolitan region. While the specific narratives of those interviewed vary, there are strong threads that wind through nearly all of these SunRail visioning scenarios and create the core of project benchmarks. This chapter will explore these threads and work to untangle intertwined narratives, in order to better understand how Orlando boosters utilize planning visions to establish a coherent narrative on the requisite conditions for economic growth.

Planning visions are a vital component for establishing a comprehensive urban plan and situating large infrastructure projects within that framework. Urban planners and local officials utilize these visions as a means of rallying community support, justifying project selection and marketing the city’s future. A City of Orlando planner expressed the importance of creating a region wide vision from a pragmatic planning perspective. Comparing Orlando to Charlotte, NC, a city that was repeatedly set as a benchmark, he noted the work Charlotte has done to create a grand vision for the future of the metropolitan area. Citing the light rail system as an example, he cites Charlotte’s ability to justify each project by situating it in the larger planning vision:

“We have to get like Charlotte. We have got to have a transportation vision ‘elevator speech’ that’s three minutes long. I tell you, you talk to a human being from Charlotte and they – to the person: citizen, business people, transportation people – they will never

talk to you about a project. They say, ‘we’ve got a plan and here is how it is going to work. We have a little internal circulator downtown and then we did a bigger circulator and then we put our major event stuff there. You can get to anywhere downtown on a historic trolley or our circulator. Then we have five routes that go out from downtown...we have plans for all of them.’ They give you the system elevator speech 100% of the time. And here is the difference. We don’t do that. We do projects. So, as soon as you see that project is here - and you live there and there and there and there – you say, ‘I don’t think that project does anything for me.’ The project only has value to people up here, is if the first leg of a whole and they know the rest of this is on a path and happening. And people in Charlotte know that. And people here don’t. And that is one of the reasons we have a dismal record of getting support for the financial aspects of our projects. We don’t have a big plan.” (Research Interview: 9)

The Orlando city planner clearly expresses his desire to create a more detailed comprehensive vision for the Orlando region, in which individual projects can be situated. In essence, planning visions order and organize the built environment and the spatial flows of the city in an effort to reinforce the placemaking strategies employed by local elites.

SunRail Narratives and the Public Discourse

On the national scale, commuter rail projects commonly have three cited goals that have been benchmarked and black boxed as the primary reasons for establishing a commuter rail system: (1) environmental mitigation, (2) managing urban sprawl and (3) economic development. Although they are always spatially and temporally contingent, these goals permeate and reinforce the narratives employed by planners and policymakers in the public discourse on commuter rail. These locally modified narratives are adapted to the current political climate of a metropolitan area and serve to reinforce the overarching regional planning vision or economic development strategy. In the case of Central Florida, locally modified versions of these goals surface in the public debate over the SunRail system. The ways in which the narratives are reshaped as the politico-economic climate changes are also revealed. Embedded in the Orlando narratives are claims about mitigating the impacts of air pollution, reducing transportation congestion by creating dense urban development corridors, and the potential for SunRail to stimulate economic development and job creation. The narrative changes during more than a decade’s worth of public discourse on the merits of creating a commuter rail system in the region. Specifically, the narrative takes a strong economic turn to address the concerns of the ‘great recession’ of 2007. Between 2001 and 2007, the framework of the narrative to advocate for SunRail had largely focused on mitigating environmental impacts and reducing congestion. However, unpacking these narratives exposes a foundation of economic development that existed prior to the most

recent recession. The economic framework for commuter rail was draped with a secondary public discourse that focused on mitigating environmental impacts and sprawl issues. Once the recession became the overwhelming issue addressed by local business and policymakers, public discourse of SunRail became explicitly economic development focused. The transition from initial environmental narratives to the narratives focused exclusively on economic development is a hallmark of the entrepreneurial turn.

Early in the project, the potential for reducing environmental impacts by reducing traffic congestion was cited as the paramount regional benefit of establishing the Central Florida commuter rail. The Central Florida Partnership and MyRegion conducted the research for the *How Shall We Grow* report in 2006, prior to the ‘great recession’.

In recent years, Central Florida has been developing land at an even faster pace than population growth. The region included a total of 2,618 square miles of urban development in 2006, compared to 1,675 square miles in 2000. This growth is placing increasing pressure on the region’s unique and fragile environment, as well as the transportation system... If current growth policies continue, the amount of developed land in Central Florida will double by 2050. More development will occur in places that once were distinctly rural or in sensitive environmental areas. City boundaries will meld into one another, with little distinction or “green space” between developed areas. (*How Shall We Grow*, 2007, pgs 10 and 13)

Prior the Governor Scotts’ final authorization for SunRail, a county commissioner for Seminole County situated the relationship between air quality, traffic congestion and federal funding:

“One of the things you need to understand – that most of the public don’t – is the impact of vehicles on air quality. The federal government has air quality standards that they expect and monitor...Quite frankly we are very close to the borderline on being non-attainment and if you go into non-attainment all federal funds are cut off to your county until you solve that problem. Mass transit – meaning bus and rail – is one of the ways that is going to help us to make sure we are in attainment, because the biggest offender is the automobile. Particularly on I-4 when you are sitting there – quite often – in gridlock situation.” (Research Interview: 7)

The Orlando MSA remains close to EPA non-attainment status, meaning that the amount of air pollution exceeds federal regulatory standards. The increase of nitrogen oxide (NOx) and sulfur oxide (SOx) contaminates are directly linked to automobile emissions and the increased number of motorists on the road. With a rapidly expanding population and increasingly sprawling urban form, Central Florida’s rapid growth put more vehicles on the road for longer periods of time. The increase in vehicles and vehicles miles – driving distances and the idling time in traffic jams – were framed as the cause of the region’s pollution problem. With nearly 1,000 new residents a

day moving to Florida in the mid-2000s, the Orlando region was experiencing a large population influx, as well as, trying to accommodate the 51 million tourists a year that visit the region. This was a perfect storm of sprawling development and increased traffic congestion, allowing the commuter rail narratives of environmental mitigation and sprawl reduction to be coupled together.

The lobbing narrative of local planners, policymakers and business leaders focused on excessive traffic congestion as one of the largest barriers to continued economic prosperity and quality of life in the region.

The [East Central Florida Development District] is almost totally dependent on motor vehicles for local transportation. Bus service represents less than one percent of daily trips in the region. Because the region is almost completely reliant on automobiles for commuting and personal transportation, the road network is quickly failing. Orlando is turning into Atlanta, but it does not have a mass transit system.

The region's development patterns have exacerbated the problem. This is the typical sequence of events: new homes are built in low cost farmland that was once citrus. Soon there are enough rooftops and the commercial developers follow. Local authorities zone strip-commercial parallel to the major arteries serving the subdivisions. Every commercial entity is given one or two driveways. The vehicle turning movements from these driveways choke the flow of traffic. Soon the two-lane roads with excessive commercial curb cuts must be widened to four lanes, then six, and then in many cases the corridor cannot be widened further. Commutes that were 20 minutes 20 years ago are now an hour, and still the region pushes outward. The average commute from place of residence to place of work in 2005 was 27 minutes. In Seminole and Orange Counties forty percent of commuters drive over thirty minutes to work. (East Central Florida Comprehensive Economic Development Strategy, 2007)

As highlighted in the previous chapter, the traffic congestion narrative was strategically utilized to leverage initial commuter rail funding by framing it as a component of a proposed I-4 expansion project. With the section of the interstate near downtown Orlando in need of expansion, planners envisioned commuter rail as a means to obtain federal highway funding. Simultaneously, planners and pro-rail policymakers quietly discussed the I-4 expansion narrative as a means of justifying a long desired rail transit system in Central Florida. County and city planners worked with the local metropolitan planning organization, MetroPlan Orlando, to use commuter rail to divert the capacity required by the Federal Highways Administration (FHWA) funding regulations. SunRail provided local planners a means of diverting the equivalent of one lane of capacity from I-4 in downtown Orlando, which could not be diverted on already over congested local alternative roads. This narrative provided a mechanism for local and state officials to fund a public rail transit project. The congestion and sprawl narrative also allowed

planners to rethink the urban form by allowing for a restructuring of local zoning codes along the rail line to facilitate more transit-oriented development. This process of creating more dense, infill development in downtown Orlando is explained by a City of Orlando transportation planner:

“I think it is going to be a transformational project. Because we have restructured our parking code. We have tee-ed a lot of stuff up to say ‘hey if you build downtown you don’t have to build a ton of parking.’ We are focused on infill. I think this could be a real game-changer for us.” (Research Interview: 20)

Encouraging more dense development along the corridor is an effective way to manage urban sprawl, which could preserve some of the undeveloped land around the region. By allowing greater density and the mixing of residential and commercial zoning, planners hoped to facilitate transit-oriented development clusters near commuter rail stations and along the commuter corridor.

The Central Florida Partnership (CFP) and MyRegion began exploring the issue in 2006 and were explicit about the economic utility of a rail transit system and an integrated land use plan, exploring issues of land use and economic development (see chapter 2). Conducting a yearlong survey and public engagement agenda between 2006 and 2007, the organization collected data from 86 cities and seven counties on the topic of regional growth. The report, *How Shall We Grow*, was released in August 2007 and laid out a regional growth plan (MyRegion, 2014). Bridging the gap between the transportation planning authority of local MPOs and the regional economic planning role of the regional development district (RDD), the report highlighted the tension between economic development, rapid population growth and land use planning. Citing strategies for economic development which drew heavily from Richard Florida’s creative city prescription, the report highlighted the need to draw creative young professionals to the region as a means of enticing inward private investment. The report pointed to more integrated transportation options, such as commuter rail and high speed rail (HSR), and dense development corridors, to preserve the environmental and recreational amenities, as a way to attract private investment in Central Florida. The CFP and MyRegion became advocates for SunRail and began to explicitly link the environmental and sprawl narratives with economic development issues in the public debate.

“We have choices about how, where, and in what form our region will grow. We can continue our current pattern of development, which will cause us to consume land at a rapid pace, encroach on critical environmental resources, lose the distinctiveness of our

communities, and paralyze our residents and businesses in traffic. Or, we can boldly choose a different approach where we conserve our environment, strengthen our urban centers, and provide a variety of choices for how we live, work, travel, raise our families, and enjoy our free time.

We recognize that the decisions we make today about future growth will determine the competitiveness of our economy, the sustainability of our environment, and the quality of life for future generations. The decisions about development made by individual communities can have impacts far beyond their boundaries. That's why a regional, collaborative approach is imperative.

We applaud the work of numerous public, private, and civic organizations, as well as the nearly 20,000 Central Floridians who have helped answer the question 'How Shall We Grow?' We believe that the Central Florida Regional Growth Vision reflects what matters most as we raise our families, grow our businesses, and build our communities." (How Shall We Grow, 2007, pg 2)

Prior to 2007 all of the economic benefits of commuter rail were slowly bubbling beneath the surface, being touted in a balanced three pronged approach of environment, economy and land use. Fueled by the economic downturn and armed with a new report by local boosters, the SunRail discourse came to settle on the potential for commuter rail to stimulate the economy, create jobs and reinvigorate the construction industry.

Economic Development Narrative: Creative City and Local Governance

As SunRail advocates looked to secure state and local funding during an economic recession, the benefits of a commuter rail system quickly came to center on its potential for stimulating economic development. A coalition of SunRail supporters in Central Florida, including planners, business leaders and policymakers, intensified the focus of the commuter rail discourse on the potential to restore the region's faltering construction industry and returning to a period of economic growth. The economic development discourse, strongly rooted in the need to attract more private investment into the region, employed a creative cities approach. The SunRail coalition framed Orlando as a metropolitan area on the verge of becoming a "world-class" city for doing business. The president of the Hispanic Chamber of Commerce in Orlando of Metro Orlando framed the situation:

"You can imagine the possibilities of Medical Tourism with advanced research. It's just a good picture. It's looking forward. We are slowly acquiring and developing all the elements we need in order to be a Class A metropolis in this country. It is not about size...it is about right ingredients and I think that rail is one of those. We can't afford not to have it." (Research Interview: 14)

Drawing on narratives of inter-city competition, placemaking strategies and urban hierarchy, this booster expects SunRail and a biomedical research agglomeration to enhance Central Florida's reputation as a vital economic center. An Orange County planner working with growth management planning highlights the need for the region's transportation to be considered globally competitive:

"As a community, there is always discussion about making your community a world class community. And in this community, in particular, we have a lot of international visitors...So what we are hoping for is people who have experienced transit elsewhere – across the world, not just the United States – will look at this city as on par with some of the technology and transportation conveniences that other metropolitan areas have to offer. And, obviously, as businesses contemplate whether to locate here or whether to remain here, transportation is a very key component to those types of decisions. So, we want to make sure we have those types of options that will be attractive to them." (Research Interview: 4)

Highlighting the need for amenity development, some felt the region was missing a set of amenities desired by creative, young professionals. The list included better public transportation, more cultural amenities and better access to existing environmental amenities. The deputy director of MetroPlan Orlando highlighted the changing preference of younger members of the Orlando workforce:

"The thing with getting people to change the way of doing things - it's interesting, because it is really the younger workers – today's younger workers – that are interested in [transportation] alternatives. The same time that SunRail is going on, there is – over the past ten years or so – there has been a lot of downtown housing constructed.... You could see that people living in downtown Orlando – of course, depending on where they work – could get by without a car." (Research Interview: 11)

Establishing transportation connectivity and cultural amenities were repeatedly cited as a way to attract a young educated labor pool and attract the types of higher-wage sector private investment that are seeking such labor.

According to the argument circulating through policy discourse in the region, a commuter rail system would lay the foundation for attracting young professionals and ensure private corporate investment that would accompany this creative class. Simultaneously, local leaders also worked to increase local cultural and entertainment amenities in downtown Orlando, including a new basketball arena, creative village and a new performing arts center. An FDOT planner explained the value in connecting cultural amenities with rail transit opportunities:

“Florida is hard. Especially Orlando. We are a service oriented community because we have all the tourism – which is great. ...But to get these higher profile – like biomedical research or these big, top Fortune 500 companies into the area. They look at the benefits they can give their employees – like a performing arts center, an Amway, mass transportation. Because that is what these young professionals want. ...Once we get [SunRail] in place it will attract a lot of better businesses to the area” (Research Interview: 5)

Fostering these cultural centers and providing transit connectivity is seen as an important means to grow the Central Florida economy. Orlando boosters are working to ensure both conditions are met, as SunRail proponents advocate increased creative, entertainment and cultural amenities in the city center.

The Orlando NBA franchise moved to a new downtown venue, the Amway Center, leaving the old Amway Arena to be redeveloped into a creative community for art and digital media. The city partnered with Full-Sail, a local college of digital media, the Disney Corporation and the University of Central Florida to establish the Creative Village on the edge of downtown. As a downtown center for the arts, the plan includes museums, exhibit halls, studio spaces and digital media labs. The Creative Village is expected to have a large public art space and public green space in an effort to provide more creative cultural amenities downtown. In the city center, Orlando-Orange County is working with the Dr. P. Phillips Foundation to establish the Dr. Phillips Center for the Performing Arts. The 330,000 square foot building will be located in two contiguous blocks at the heart of downtown, and will include multiple theaters, rehearsal halls, community education center and an outdoor performance plaza. Connecting these three sites with the SunRail system was important for local officials and business leaders. The new basketball arena and the performing arts center will be within a block of a SunRail station, while a free downtown circulator bus is expected to connect the digital arts village with downtown commuter rail stations.

Most noteworthy in this expansion is the explicit coupling of creative city development strategies with inter-urban competition narratives. Often cited during research interviews were comparative statements between Orlando and the other “top thirty” US cities. Local leaders would often point to the thirty largest metropolitan areas in the United States to compare Orlando’s transportation and cultural amenities. The most repeated talking point was that only three of the “top thirty” US cities had no form of rail transit – Orlando, Tampa (FL) and Cincinnati (OH). This statistic was often credited to Congressmen Jon Mica’s office and laid out as a metric for understanding how much more competitive Orlando would be with better public transit. A similar narrative was employed for the performing arts center, as the Dr. P. Phillips Foundation highlights that Orlando is the only city in the largest thirty MSAs in the United States

without a signature performance venue (Dr. Phillips Center, 2014). By comparing Orlando to other large metropolitan areas, the narrative situates Orlando and Central Florida in direct competition with these cities for private investment. Regional leaders view placemaking strategies as key to recruiting and maintaining an educated workforce and enticing inward investment.

A Seminole County booster, like many interviewees, framed these types of quality of life amenities as a means to create a new level of prestige for Central Florida (Research Interview: 16). Many interviewees cited Orlando's hope to become a 'world class' city (Research Interview: 14), although some were skeptical that Orlando could ever reach that level of international prestige. An integrated rail transit system in the region, as well as, more public investment in transportation infrastructure and cultural amenities were cited as the key to transform Orlando into a true "Class A metropolitan area" (Research Interview: 14). Interviews with SunRail planners reflected their policy focus on inter-urban competition and their belief in a creative city model of economic growth. A member of the Hispanic Chamber of Commerce of Metro Orlando spoke directly to the idea of inter-urban competition and economic development:

"Every major company that is looking at either relocating or direct investment in our community, it is in their checklist to look at 'what are the assets the community has'. And checking that we have rail in place, it's a big plus. I think it is a big factor in determining if they call Central Florida home or they do direct investment here. It's one – a first step – to continue to move in the right direction. It's critical. Easy of transportation and easy of accessibility. It's there in terms of increasing quality of life for their workforce... For example, if there is a company that is willing to relocate to Orlando. One of the things they will be looking at – among others – is the quality of life you can share with your employees to gain an opportunity to get more time to focus on different things and not have to spend so many hours in the morning traffic jams". (Research Interview: 14)

Transportation that works for the investor is seen as one of the important elements that must be in place to make a city like Orlando competitive and for making a company's shortlist for relocation and investment. The SunRail project manager highlights the importance of rail transit is attracting property development projects in her recollections of a 2011 TOD meeting with Tupperware Brands:

"They have had a developer contact them...for like a Fortune 500 company that wants to come in and they are looking at different cities...One of the selling features that Tupperware gave them was the fact that this property would have a commuter rail station. The process goes on and they came back and said 'you still going to have a commuter rail station here?' And Tupperware says, 'Yes. As soon as we get the go-ahead.' ...That's a good example of what you hear and what you see" (Research Interview: 5)

Ultimately, the development company partnered with Tupperware to establish a mixed-use transit-oriented development district at a SunRail station.

A second component of corporate relocation is quality of life. SunRail addresses both of those ‘checkbox requirements’ and is expected to give Orlando a comparative advantage over some similar size cities. A booster from Leadership Seminole explained the importance of creating a certain quality of life, despite a low return on investment:

“Doing nothing [about regional congestion] is horrific. Let’s give [SunRail] a shot. It is expensive. All this stuff is expensive. Quality of life is expensive. Bus transportation is expensive. It’s a service provided to those who need it. And rail is a service provided. It is what government does. There is not much ROI in this stuff. Now, the cities that have rail, have the opportunity to benefit directly from economic development...The local cities, the counties and the region have an economic plus [with rail systems].” (Research Interview: 16)

Boosters see the need to compete with similarly situated cities coupled with the need to draw new young talented professionals. Using a quintessential creative cities argument, they value amenity-growth to attract young professionals to the region. This narrative was best summed up by the president of the Hispanic Chamber of Commerce of Metro Orlando:

“It’s to have a vibrant community. Young professionals. Entrepreneurs opening businesses. At the end of the day everyone is looking at...transportation. How nicely can you get in and out if you want to come and watch an Orlando Magic game at the arena...Imagine the quality of talent we can attract - both in human capital and in corporations, entrepreneurs and investors - by having something like this put in place.” (Research Interview: 14)

Central Florida’s transportation planners and elected officials also tap into the creative city model of amenity development, as they cite the need to attract an educated labor pool to the region by offering more alternative modes of transportation. An interviewee from the Orlando MPO noted that rail transit, better integrated bus service, pedestrian-bike paths and compact walkable development as key to attracting an educated workforce to the city center (Research Interview: 11). A representative of the Orlando Mayor’s Office noted that while all young professionals would not locate along transit routes, it was critical to have the option of a TOD lifestyle for recruiting the next generation of Central Florida leaders (Research Interview: 22).

While transportation and cultural amenities are established using a creative cities narrative, these practices employ classic entrepreneurial tactics. The downtown cultural and

entertainment amenities projects employ a placemaking strategy to restructure the built environment with amenity infrastructure that is funded with speculative public investment. SunRail is being funded exclusively with public dollars. The Creative Village, Amway Center and Dr. Phillips Center for the Performing Arts are public-private-partnerships. These three projects are being established to stimulate private investment and increase property values in downtown Orlando. The region is being restructured to meet, what local boosters perceive to be, the spatio-economic pre-conditions for economic growth. The creative city strategies employed by Orlando boosters are entrepreneurial development strategies. Nested within entrepreneurial governance, creative city strategies work to focus public funding toward infrastructure projects that restructure the built environment to meet the pre-conditions of private capital investment. Urban boosters are designing a new urban form and establishing an educated labor pool, which is one of Painter's (1998) pre-conditions of entrepreneurial development. In the case of Orlando, public transit and cultural amenities are being established to entice a labor pool that can attract biomedical and simulation technology research firms. In a post-industrial economy that is seeking to attract tertiary growth industries, such as biomedical technology and high-tech simulations agglomerations, having a pool of young professionals is seen as a crucial resource.

As with all public rail transit in the US, the SunRail system will not generate enough revenue at the farebox to make a profit. The system, as a tool for economic development, is expected to provide a return on public investment by fostering private sector growth. The case of SunRail highlights the nesting of creative city narratives within the larger entrepreneurial turn.

Transit-oriented development

Transit-oriented development (TOD) around downtown stations has become a key feature for commuter rail projects, as TOD projects are conceptualized as a tool for managing urban sprawl, stimulating economic growth and reducing environmental impacts by establishing dense urban transit corridors for future development projects. Transit-oriented development refers to pedestrian friendly, high density zone in close proximity to a public transportation system. Following the principals of smart growth, TOD zones have planned residential and commercial mixed-use development situated within walking distance from fixed route public transit stations. TOD projects are framed as a means to foster economic development, by boosting property values, and to mitigate environmental impact, by reducing automobile use by local residents (FDOT, TOD, 2007; 2011).

The first goal of TOD is easy transit access, establishing residential units close to public transportation options and placing commercial centers near transit stations. Residents in TOD developments are able to commute to work by walking or biking from their home to a transit station. In an effort to accommodate bike and pedestrian traffic, TOD zones design larger sidewalks, establish bike lanes and provide safe well lit spaces for night travel. Some development areas have bike share or bike rental programs that allow commuters to have bike access once they get to their destination. Most of this commercial and residential development investment is concentrated within the first two TOD zones from a transit station: an initial quarter of a mile zone and a secondary half mile radius around the station. Planners consider the quarter mile and half mile zones around TOD development to be the distance an average commuter would walk to and from a transit station, which equates to a five and ten minute walk, respectively.

Commuter rail stations can have varying models of transit-oriented development based on characteristics such as station location, existing development and ridership volume.

Commuter rail stations are often designated as either ‘feeder’ stations or ‘destination’ stations, resulting in differing types of TOD projects. Feeder stations’ are commonly residential suburban areas that often have TOD projects that include neighborhood restaurants, cleaners and grocery stores. These feeder stations tend to be less dense and have park-and-ride lots. Destination stations are usually located at the central business district, government centers or near entertainment venues. These areas have high density TOD designs that can include mixed use housing, office complexes, sports venues and other entertainment centers. TOD around destination stations rarely have park-and-ride lots.

The second goal of transit-oriented development is spurring economic growth, as development projects reshape the topography of urban property values and establish new clusters of economic growth. The design of transportation infrastructure is thought to create areas of economic growth that can work with local efforts to create a more competitive regional economy. Long term investment in alternative transportation infrastructure is an attempt to establish pockets of concentrated economic growth. Embedded in these economic development initiatives are assumptions about the need to establish a ‘creative city’ through amenity growth, resulting in a TOD designed to attract an expanded ridership of young, creative professionals (Brock and Crick, 2013). According to Richard Florida’s (2005) creative cities thesis, transit systems meet the prerequisites for creative growth, by establishing transportation amenities and TOD zones around rail stations to attract capital investment and foster economic development.

The third goal is to reduce the environmental impacts associated with automobile transportation and mitigate the need to expand infrastructure to meet the needs of urban sprawl. By reducing the number of automobiles on the road during commuting hours, cities can reduce their greenhouse gas emissions. This is important for urban areas that are designated ‘non-attainment’ zones, which indicates the area has exceeded the Environmental Protection Agency’s (EPA) threshold for air pollution. Encouraging public transit use and pedestrian commuting also reduces the need for expanding road capacity. By reducing the need to add more paved highway lanes, there are fewer impervious surfaces that generate polluted storm water runoff and impact overall water quality.

Critiques of transit-oriented development point to the potential of increased property values to displace low-income residents in the area (Cervero, 2004; Hess and Lombardi, 2004). The potentially negative impacts of so-called ‘transit oriented gentrification’ can be addressed by ensuring enough affordable housing options in the TOD zone. Like other smart growth and new urbanism projects, TOD projects should work to ensure a healthy mix of income levels and socioeconomic diversity. Having affordable housing within a TOD zone can be a way to reduce the number of residents displaced by rising property values. It also serves to make transit oriented development more effective, allowing service sector employees working in TOD neighborhoods to afford to live in the neighborhood. That allows residents to live in the area where they work and encourage the pedestrian and transit usage that makes transit-oriented development zones more successful. In response, developers and urban planners commonly work to create a comprehensive and integrated land use plan that encourages smart growth and new urbanism design principles for transit-oriented development projects. These principles include: easy transit access, pedestrian friendly site design, residential and commercial mixed use development and a variety of housing options and housing costs.

SunRail Transit-oriented development

Destination stations, located downtown at entertainment districts and hospitals, require more public transportation connectivity, including more bus routes, pedestrian paths and bike lanes. Feeder stations, located in the surrounding suburban cities, are often only connected with a single bus line and have large park-and-ride lots. There is also an internal typology of Central Florida feeder stations. Some stations are being established in existing suburban centers with residential and commercial development while other stations are being placed in undeveloped locations that have adjacent greenfield properties for future development.

While it is not anticipated that feeder stations will generate a need for more origin sided transit, the transit connectivity of destination stations is expected to increase the demand for public transit in downtown Orlando. In addition to more transit use downtown, the anticipation of fewer vehicles in the city center has allowed Orlando planners to begin working on policies that would reduce the number of parking spaces required by local planning regulations.

Ultimately, reducing parking requirements around destinations stations will create more space for new development projects and a dense walkable urban form. A key component of the plan is to create mixed-use, high density developments in and around downtown. The quintessential cornerstone of TOD is the retail-residential walkable community, which is the type of downtown development being encouraged by Orlando boosters. RIDA Development, a local development company is currently building a \$250 million transit adjacent mixed-use residential complex. Located in the heart of downtown and directly across the street from the LYNX public transit station, the development will have a large quasi-public plaza that will open to the SunRail station and will be marketed as a transit community (Schlueb, 2014). The firm wanted to design and market the residential space as a transit community and delayed the property development project until the establishment of SunRail was confirmed (Research Interview: 15; 20). Upon completion, local planners hope that this development will be heralded as the archetype walkable transit oriented community and help create a TOD culture among developers (*ibid*).

The spatial restructuring of downtown Orlando focuses on transit adjacent residential development and cultural amenities, but also attempts to establish the region as a healthcare and biomedical research cluster. With downtown Orlando surrounded by healthcare adjacent SunRail stations, the system has become central to local efforts to establish a healthcare and biomedical technology research agglomeration (see chapter 2). The Florida Hospital flagship campus is on the north side of downtown and has a SunRail station on its campus. Orlando Regional Medical Center (ORMC), located four miles south of Florida Hospital, is adjacent to the southernmost downtown SunRail station. ORMC is located south of downtown and is a 16 mile drive from the Medical City development, which is located off the SunRail route and a mile south of the airport. To capitalize on this clustering, the region seeks to create a politico-economic climate and built environment to facilitate this new wave of economic development. Specifically, local boosters and planners envision a downtown Orlando that utilizes its hotel capacity and entertainment tourism amenities to establish a medical tourism industry. Paramount in that plan is rail transit connectivity, attracting world class biomedical research investment and transit oriented residential development near the healthcare centers. These types of political and spatial restructuring to meet the pre-conditions of inward investment are illustrative of classic

entrepreneurial placemaking strategies. Local boosters hope that by connecting the emerging healthcare clusters, providing health care adjacent amenities and marketing the city to biomedical investment the city will gain a reputation as the epicenter of medical tourism in the United States.

“A \$55 million BioResearch Center is breaking ground near Florida Hospital's downtown campus, hospital officials are expected to announce today... The BioResearch Center is part of a 20-year master plan for a Health Village, a life-sciences cluster that Florida Hospital is working to build out over the next 10 years. The vision for the village is to create an urban hospital surrounded by bioscience companies, residential housing, retail and the new Sunrail Station, which will open next year, said David Banks, the lead Florida Hospital executive overseeing the Health Village development... ‘I look at Orlando as being the next great medical destination in the United States,’ [Orlando Mayor Buddy] Dyer said. ‘When you look at Health Village, what Orlando Health is doing and what's going on out at Medical City, it's all complementary.’” (Jameson, November, 2012)

The expansion of health care and research facilities at both Florida Hospital and Orlando Health are encouraging signs to local boosters seeking to boost the biomedical and medical tourism narrative in Florida.

Orlando Health is currently working with city planners, policymakers and private developers to re-envision and reshape the area around the Orlando Regional Medical Center (ORMC) facility (Kassab, 2009). The neighborhood around Orlando Health is a mix of heavy industry, residential developments, strip mall style commercial development and free-standing fast food units. There has been a scatter-shot clustering of commercial business to service the hospital, including drug stores, restaurants and gas stations that have long existed in the area. Recently, however, developers have been attempting to gentrify the neighborhood by taking advantage of comparatively low land prices for this highly traveled corridor. In 2008, a new commercial development named SoDo for its south downtown location opened up near ORMC. The mock new urban style development included a Super Target, restaurants and bars, yoga and wellness studio and several large parking garages. Serving as a trendy chic strip mall for hospital employees and visitors, the development has no pedestrian friendly paths connecting off property sites, such as ORMC or nearby residential developments and commercial centers. Also increasing the neighborhood's popularity was the 2007 establishment of a new micro-brewery and taproom on the industrial side of the tracks from ORMC. Orlando Brewing, an all organic micro-brewery, began attracting young, middle class professionals to the neighborhood.

Located south of downtown Orlando and the new Amway Center, the SoDo district and hospital complex is at the intersection of US Interstate-4 and the State Road-408 East-West Expressway. With the coming SunRail station and the two recent anchor developments – SoDo

and Orlando Brewing - located adjacent to the Orlando Health property, local planners consider this an ideal time to revitalize the neighborhood (Research Interview: 15). A city transportation planner noted the opportunity to create a dense, walkable entertainment district, similar to the village shopping district in Winter Park, which is located further north on the SunRail line:

“The other site that has a lot of potential down here is south of Michigan and east of Orange. There is a huge, old Publix center and there used to be an Albertsons in there. And when you look – there are two different owners in there – and one of the things we have always advocated is that it would make a fantastic Winter Park village kind-of a major development. Because there is a huge housing base to the east and the south - and toward the west down here – that could benefit from something with multiple shopping opportunities. We’ve got SoDo in here that already has some shopping opportunities. But the combination of those two could do a tremendous job being able to support the redevelopment of this area. From a small regional scale, but definitely way-upscale, and more than just a neighborhood level facility, it could make all of this viable for more intense housing.” (Research Interview: 15)

It is expected that this entertainment and shopping district would be integrated with the Orlando Regional Medical Center and its adjacent SunRail station, which will facilitate connectivity between the neighborhood, hospital and the entire SunRail commuteshed. Orlando Health plans to have a circulator bus that will connect the adjacent hospital facilities to the SunRail station with stops at ORMC, Palmer Children’s Hospital and Palmer Women and Babies Hospital. This will connect patients and employees to the commuter rail system and the inter-city passenger rail Amtrak service. The idea is to create an integrated neighborhood where people within the region can travel to the resources and amenities offered in the SoDo district, including health care, NBA games, commercial centers and residential areas (Research Interview: 15).

The city is working to create a new spatial flow of streets and pedestrian ways around the area to facilitate a new smart growth transit enclave. The hope is to relocate the heavy industry to a less congested site outside downtown Orlando and to gentrify the industrial district (Research Interview: 15). Businesses in the neighborhood are considering a special district tax to fund district-specific road infrastructure and stormwater systems improvements, with hopes of furthering the growth of the south of downtown neighborhood (Kassab, 2009). In 2012, Orlando Health bought two retail properties on the block situated at the intersection of the Amtrack-ORMC SunRail station and the hospital (Shanklin, April, 2012). Orlando Health is working to create livable smart growth neighborhoods in close proximity to the hospital complex in hopes of attracting more doctors, health care professionals and patients.

The Florida Hospital system, located on the north end of downtown Orlando, is also hoping to benefit from commuter rail transit by expanding its facilities in an attempt to attract

doctors and health care providers. While Orlando Health and city planners view SunRail as one component of a larger public private partnership to reshape the SoDo neighborhood, Florida Hospital highlights their on-site SunRail station as the epicenter of a \$230 million Health Village expansion project (Research Interview: 22). Florida Hospital was a strong supporter of the commuter rail system from early in the process, as they agreed to fund 100% of a station platform to secure a SunRail stop on their property (*ibid*). Hospital leaders saw the opportunity to expand the system's flagship hospital with new facilities, a healthcare college and cutting-edge doctors and researchers through the new transit infrastructure. The center of the expansion plan is the Health Village, a large facility that will house local physicians, specialists, researchers and healthcare services. A healthcare college is planned as part of the campus expansion and would serve to recruit and train healthcare professionals for the Florida Hospital system and its larger parent system, Adventist Health System.

In addition to the Health Village, Florida Hospital is in the early stages of working with property developers to build a series of transit adjacent mixed use communities around the hospital and its SunRail station. The project would create housing for doctors, research and healthcare workers close to the medical campus, the commuter rail station and downtown Orlando (Jameson, June, 2013; November, 2012). Boosters also envision some of these developments to have extended stay hotels and condo rentals, so the families of patients could stay close to the hospital and local transportation options. This type of partnership between residential property development and local hospitals and the destination side connectivity, with planned walkable communities and commuter rail access, could set the foundation for the region to become a domestic medical tourism center. In an effort to connect the expanding healthcare system in downtown with the emerging biomedical research center at Lake Nona, local planners and boosters are seeking to connect the Medical City—Orlando Airport area with the SunRail system (Research Interview: 20, 21). While it is unlikely that Medical City, a research center with the UCF Medical School, Burnham-Sanford Research Center and UF-Shands healthcare will be directly connected by rail, it is hoped that a circulator bus will connect Medical City to the Orlando International Airport (*ibid*). Local boosters, however, anticipate a future rail system will connect the airport with downtown, SunRail stations and the theme park clusters to the west of downtown. By connecting Medical City facilities with SunRail and the two flagship hospitals downtown, it is hoped that innovative biomedical technology research from Lake Nona will provide state-of-the-art health care opportunities for patients at ORMC and Florida Hospital. These types of transit-oriented development projects work to restructure urban form and the flows of capital within the metropolitan area. SunRail provided the infrastructure necessary to establish

the mixed-use TOD development and hospital campus expansions. By creating these TOD centers that are codified as zones for new development, investment is funneled into very specific areas of the city.

Mobility of Private Investment: The Built Environment and the Spatial Flows of Capital

Placemaking strategies are, at their essence, mechanisms to restructure capital investment through the spatial rearrangement of the built environment. The establishment of new centers of consumption and the regeneration and gentrification of former consumption centers provide urban spaces for new capital investment. Attracting capital investment into the region is the endgame for many Orlando business leaders and policymakers. They understand that the global circulation of capital is becoming increasingly mobile and that neoliberal policies that reduce funding from the central state require local governments to engage in entrepreneurial approaches. Local boosters attempt to establish cities that have efficient transportation, cultural-recreation amenities and business friendly climates as essential to attracting inward investment.

Policymakers and business leaders often fail to acknowledge the liminal nature of these placemaking strategies. However, an interviewee at Leadership Seminole, a business booster organization for Seminole County, explained the relationship between attracting investment, public placemaking strategies, policy transfer and inter-urban competition. He noted that SunRail drew from the most successful transit-oriented development (TOD) benchmarks in the country in an effort to better emulate and improve upon existing commuter rail systems and light rail TOD models. The booster compared SunRail with the new Amway Center, noting a composite of best practices allowed Central Florida to create a state-of-the-industry commuter rail system to foster economic growth in the region:

“I think [SunRail] will be an enviable model, because we are doing it now. Anytime you do something next, you have the opportunity to learn from what worked and what didn’t work elsewhere and make it better. You are always one-upping. If you have the opportunity to start from ground-zero, you have the opportunity to build a system and take advantage of what others have learned. For example – just a simple example – for the arena that was built downtown. They visited all of these modern day arenas, in addition to doing research, to decide how we wanted our place to be and to excel in customer experience. Now people have the opportunity to come to Orlando and visit our cities in Seminole County and say, ‘how did you determine to do this and this and this?’ ‘Now that you did this, what did you learn?’ We will be a tremendous learning resource.”
(Research Interview: 16)

The Seminole County booster is quick to situate this as a part of a one-up-manship cycle that places SunRail and the Amway Center in an elite class of transportation and entertainment venues. He also highlights the temporary nature of this competitive advantage, indicating that other cities are already looking to expand on the new ideas implemented for SunRail to improve upon those policies in their own cities. SunRail will only be a new and exciting state-of-the-art system for a short time, creating ephemeral advantages for Orlando's placemaking strategies

While this cycle of entrepreneurial one-up-manship is designed to attract inward investment, SunRail has attracted mostly local TOD investment. Prior to the operation of SunRail there has been new local investment in the region, specifically in downtown Orlando. The large TOD investors are locally dependent firms investing locally. This would include the Dr. Phillips foundation, RIDA property development, the two local hospitals and the Orlando Magic. The chart below outlines some of the local (re)development in the region that have been credited to SunRail:

Table 4: Local Investment in Transit-Oriented Development Projects

Local Firm	Investment	Industry/Sector
Orlando Regional Medical Center	\$300 Million	Health Care and Biomedical
Florida Hospital's Health Village	\$230 Million	Health Care and Biomedical
Orlando Magic's Basketball Operations Center	\$300 Million	Entertainment
Orlando Performing Arts Center	\$500 Million	Entertainment
RIDA Transit Oriented Condominiums	\$250 Million	Property Development
Florida East Coast – Private Passenger Rail	\$1.5 Billion	Transportation

Local investment is required to make SunRail successful and to help the region rebound from recent recession, however, the region is ultimately seeking direct investment and relocating firms from outside the region.

One of the most public voices of SunRail-dependent development was Florida Hospital. The hospital was counting on having the northern most stop in downtown Orlando located on their property. The existing rail ran through the heart of the hospital's campus and provided the hospital the opportunity to become a thriving center of transit-oriented healthcare development with the establishment of SunRail. The hospital planned to expand their medical campus with a new health village addition that would include office space for doctors, medical researchers and an expanded healthcare college.

Florida Hospital will set in motion its first attempt at work-force housing in July, when construction starts on a 230-unit apartment complex between Interstate 4 and the giant hospital system's main campus on North Orange Avenue in Orlando. Even though it's billed as work-force housing, units in the complex will be available to all applicants,

whether they work at the hospital or not... The four- or five-story complex, part of the hospital's emerging 114-acre Health Village, will be called The Ivy -- Residences at Health Village. Located on two blocks just west of the downtown hospital , the apartments will include a parking garage, pool with summer kitchen, fitness center and electric-car rentals... Florida Hospital hopes to use the project as an employee-recruiting tool and has been exploring the idea of leasing some units to be offered on a short-term basis to new workers. No one has started taking reservations for the apartments, but a preliminary survey of employees found the appetite for such apartments was three times greater than among workers elsewhere in the country for similar projects, Barry said... In addition to affordability, work-force housing historically has been located near key employers to cut commute times. Even though the seven or eight apartment buildings planned for Florida Hospital 's Health Village are just a few blocks from the main hospital , workers' proximity to that giant facility became less essential with last year's approval of the SunRail commuter train. The rail line will have a station at the hospital when the system's first leg begins operating in 2014. (Shanklin, May, 2012).

Because this large hospital campus expansion relied on SunRail connectivity to make the development plan economically viable, Florida Hospital led the charge of local boosters that actively backed the commuter system. In 2011, Florida Hospital President and CEO, Lars Houmann, joined a group of Central Florida boosters in sending a letter of support for SunRail to Governor Rick Scott. Florida Hospital's letter voiced strong support, saying:

"Florida Hospital strongly supports the implementation of Sun Rail in Central Florida. We have worked for several years with local, state and federal officials on this project. As one of the largest employers in the region and the largest employer directly on the Sun Rail line, we know the positive impact commuter rail will have for our employees, patients and guests. Better access to the employment site will make it much easier to recruit both professionals and support staff..."

The presence of commuter rail will also facilitate development around our hospital. We have a current development plan. The density of that development is limited by traffic issues. The lack of rail will decrease how much we can build and will reduce our ability to grow jobs.

...I believe in the project so much that Florida Hospital has committed \$4 million of our own cash to pay for the station at our main Orlando campus." (Letters of Support, Florida Hospital, 2011)

Many local boosters sent similar letters opposing Governor Scott's attempt to defund the rail system and situated the issues of private investment and job creation at the center of this debate. It placed Scott in a politically difficult position, as job creation and private sector economic growth were the main planks in his campaign platform. In an ultimate show of support for SunRail and the economic development narrative, Florida Hospital signed the medical campus expansion contract at a highly publicized signing ceremony the day before the SunRail dedication ceremony. The next day the Florida Hospital campus hosted local dignitaries, the state secretary

of transportation and the federal transportation secretary for the official SunRail signing ceremony that authorized the federal funds needed to establish the system.

Conclusion

By examining the narratives employed by planners, policymakers and local business leaders, this chapter has highlighted local attempts to use SunRail to grow the local economy. SunRail advocates employ a creative city narrative to establish an educated professional labor pool, attracting inward investment and restructure the city to be competitive with similarly situated metropolitan areas. By providing transportation options and cultural amenities in downtown Orlando, booster seek to entice investment from high-wage Fortune 500 caliber companies. Directing investment in a dense urban corridor adjacent to SunRail allows booster to restructure the city for a new wave of economic development. Codifying property around SunRail stations as a hot-spot for development, such as establishing mixed-used developments and entertainment amenities, has encouraged development in the corridor. The associated amenity growth has been linked with the region's attempt to establish a new wave of biomedical research and health care investment. Through this planning narrative local boosters are employing placemaking strategies to restructure the built environment and foster economic growth in the city.

Chapter Six

CONCLUSION

In the case study of Orlando, Florida, I have explored planning narratives utilized by local planners, policymakers and boosters as they employ unique urban entrepreneurialism in seeking to restructure the city for economic development. Using the SunRail as a placemaking narrative to entice inward private investment, Orlando boosters are updating the classic growth machine model with more entrepreneurial approaches. The case of Central Florida is not unique, as these types of governance practices are prominent in cities across the United States and elsewhere. My dissertation presents a detailed study on how these types of practices are being employed in the Orlando metropolitan area around the establishment of the SunRail commuter rail system. This research presents the current efforts of Central Florida boosters to apply these governance approaches to reshape the urban form and the direct the ensuing flows of capital investment through the restructuring of the region's transportation infrastructure and employing planning narratives that draw heavily on creating amenity growth strategies.

Local boosters expect that by providing dense development corridors through the region, including transit-oriented development centers, the city will have met the pre-conditions for attracting private capital investment. Specifically, local leaders are seeking to attract investment by the type of firms that will provide high-wage jobs to the region to balance the glut of low-wage service sectors jobs found in the region's theme park industry. With two hospitals along the SunRail development corridor and a large public-private partnership at Medical City, boosters are setting their sights on attracting investment in the biomedical research, medical simulation technology and healthcare sectors. At the center of this strategy is commuter rail adjacent property development. Boosters utilize a creative city narrative to insist that Orlando draw a young, creative labor pool of educated workers to entice this inward private investment to the city. As a pre-condition for attracting a young, educated workforce a city must have a high level of cultural, environmental and transportation amenities. By providing alternative transportation options with transit-oriented, walkable communities and downtown cultural amenities, this educated labor pool will seek to relocate to the region. SunRail planners and local boosters are working to create transit-oriented development with these types of amenities at downtown stations and around the system's two hospitals.

Local boosters seek to attract new private investment into the region by establishing the spatial, political and economic pre-conditions for capital investment by creating a narrative as a

business friendly city and reshaping the built environment to entice firms to relocate or provide direct investment to the region. In the case of Central Florida, early private investment in SunRail adjacent property has come from local firms and that tend to have a high level of local fixity, such Orlando Regional Medical Center and Florida Hospital. Many of these firms have existing investments in the Orlando market.

This research has provided a study of the politio-economic narratives employed by Central Florida planners and policymakers in the establishment of the SunRail commuter rail system. These local boosters are attempting to spatially restructure the city's urban form as a means of enticing and directing a new flow of private investment into the region. Drawing on entrepreneurial approaches, creative city strategies and classic growth machine interests, Central Florida boosters are using SunRail as a publically funded means to enhance its reputation as a 'world class' city, establish more cultural, environmental and transportation amenities. While the results of their efforts remain uncertain, there is value in studying the narratives and practices employed by local planners, policymakers and boosters to establish local growth strategies. This case study of Orlando adds to our understanding of how entrepreneurial narratives are being applied to transportation infrastructure projects in pursuit of local economic development.

REFERENCES

Chapter One

- American Public Transportation Association (APTA). 2012. *Fact Book: Glossary of Transit Terminology*. Washington, DC.
- Baxter, J., and J. Eyles. 1997. "Evaluating Qualitative Research in Social Geography: Establishing 'Rigour' in Interview Analysis." *Transactions of the Institute of British Geographers* 22 (4): 505-525.
- Burawoy, M. 2000. *Global Ethnography: Forces, Connections, and Imaginations in a Postmodern World*. University of California Press. Berkeley.
- Denzin, N. 1970. "Strategies of multiple triangulation". *The research act in sociology: A theoretical introduction to sociological method*, 297-313.
- Dilger, R. 2003. *American Transportation Policy*. Praeger. Westport, CT.
- Federal Railroad Administration (FRA). 1998. *Privatization of Intercity Rail Passenger Service in the United States*. Washington, DC.
- Federal Railroad Administration (FRA). 2009. *Preliminary National Rail Plan*. Washington, DC.
- Federal Transit Administration (FTA). 2012. *New Starts Project Planning and Development*. Washington, DC.
- Flick, U. 1992. "Triangulation revisited: strategy of validation or alternative?". *Journal for the theory of social behaviour*, 22(2), 175-197.
- Fisher, P., and D.C. Nice. 2007. *State Programs to Support Passenger Rail Service in Handbook of Transportation Policy and Administration*. Eds J.F. Plant, V.R. Johnston and C.E. Ciocirlan. Taylor and Francis Group. Boca Raton, FL.
- Goodman, L. A. 1961. "Snowball Sampling." *The Annals of Mathematical Statistics* 32 (1) (March 1): 148-170.
- Heckathorn, D. D. 2002. "Respondent-Driven Sampling II: Deriving Valid Population Estimates from Chain-Referral Samples of Hidden Populations." *Social Problems* 49 (1): 11-34.
- Hilton, G.W. 1980. *Amtrak: The National Railroad Passenger Corporation*. American Enterprise Institute. Washington, D.C.
- Mays, N., and C. Pope. 1995. "Qualitative Research: Rigour and Qualitative Research." *Bmj* 311 (6997): 109.
- McCann, E., and K. Ward. 2011. "Urban Assemblages: Territories, Relations, Practices and Power." In *Mobile Urbanism: Cities and Policymaking in the Global Age*, pp. xiii-xxv. E. McCann and K. Ward (eds). University of Minnesota Press. Minneapolis, MN.
- Nice, D. 1998. *Amtrak: The History of Politics of a National Railroad*. Lynne Rienner. Boulder, CO.
- Perl A. 2002. *New Departure: Rethinking Rail Passenger Policy in the Twenty-First Century*. University Press of Kentucky. Lexington, KY.
- Post, Robert C. 2007. *Urban Mass Transit: The Life Story of a Technology*. Greenwood Press. Westport, CT.
- Progressive Railroading. 2013, January 29. "South Florida transportation authority to take over rail corridor operation from CSXT." *Daily News*.
- Pushkarve, B.S., J.M. Zupan, and R.S. Cumella. 1982. *Urban Rail in America*.
- Transportation Research Board (TRB). 2010. *Guidebook for Implementing Passenger Rail Service on Shared Passenger and Freight Corridors*. NCRP Report 657. Washington, DC.

Chapter Two

- Bradford, C. 1983. "Private Sector Initiatives and Public Sector Accountability: A Case Study of Contracting with City Venture Corporation". *Journal of the American Planning Association* 49(3): 326-335.
- Brenner, N., and N. Theodore. 2002. "Cities and the Geographies of 'Actually Existing Neoliberalism'." *Antipode* 34 (3): 348-378.
- . 2005. "Neoliberalism and the Urban Condition". *City* 9 (1): 101-107.
- Brenner, N., P. Marcuse, and M. Mayer. 2009. "Cities for Profit, Not for People: Introduction." *City* 13 (2-3): 176-184.
- Brock, T., and J. Crick. 2013. "The Politics of City Building: Pro-Growth Planning Regimes and Equitable Distribution of Infrastructure". *Carolina Planning Journal* 38: 17-24.
- Castells, M. 1978. "Collective Consumption and Urban Contradictions in Advanced Capitalism." *City, Class and Power*. Manuel Castellas (ed). Macmillan. London.
- . 1978. "The urban question: A Marxist approach."
- Chapin, T. 2002. "Beyond the Entrepreneurial City: Municipal Capitalism in San Diego." *Journal of Urban Affairs* 24(5): 565-581.
- Clarke, S. E., and G. L. Gaile. 1998. *Moving Towards Entrepreneurial Economic Development Policies: Opportunities and Barriers*. University of Colorado Center for Public Policy Research. Discussion No. 41. Boulder, CO.
- Cook, I. R. 2008. "Mobilising Urban Policies: The Policy Transfer of US Business Improvement Districts to England and Wales." *Urban Studies* 45 (4): 773-795.
- Cox, K. 1993. "The Local and the Global in the New Urban Politics: A Critical View." *Environment and Planning D: Society and Space* 11: 433-448.
- Deas, I., and K. G. Ward. 2000. "From the 'New Localism' to the 'New Regionalism'? The Implications of Regional Development Agencies for City-Regional Relations." *Political Geography* 19 (3): 273-292.
- Dolowitz, D.P., and D. Marsh. 2000. "Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making." *Governance* 13 (1): 5-23.
- Dumenil, G., and D. Lévy. 2002. "The Nature and Contradictions of Neoliberalism." *Socialist Register* 38: 43-72.
- Evans, M. 2004. *Policy Transfer in Global Perspective*. Ashgate Publishing, Ltd. Burlington, VT.
- Fainstein, S. S. 1992. "The Second New York Fiscal Crisis." *International Journal of Urban and Regional Research* 16(1): 129-137.
- . 2011. *The Just City*. Cornell University Press. Ithaca.
- Florida, R.L. 2005. *Cities and the Creative Class*. Routledge. London.
- Graham, S., and S. Marvin. 2001. *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. Routledge. New York.
- Hackworth, J. 2007. *The Neoliberal City: Governance, Ideology, and Development in American Urbanism*. Cornell University Press. Ithaca.
- Hall, T., and P. Hubbard. 1996. "The Entrepreneurial City: New Urban Politics, New Urban Geographies?" *Progress in Human Geography* 20 (2): 153-174.
- . 1998. "The Entrepreneurial City and the 'New Urban Politics'." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Hall, T. 1998. "Introduction." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Harvey, D. 1974. *The Political Economy of Urbanization in Advanced Capitalist Societies: The Case of the United States*. Johns Hopkins University, Center for Metropolitan Planning and Research. Baltimore.
- . 1985. *The Urbanization of Capital*. Blackwell. Oxford
- . 1989. "From Managerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism." *Geografiska Annaler. Series B. Human Geography*: 3-17.

- _____. 2001. *Spaces of Capital: Towards a Critical Geography*. Routledge. New York.
- _____. 2005. *The New Imperialism*. Oxford University Press. Oxford.
- _____. 2006. "The Political Economy of Public Space." In *The Politics of Public Space*, pp. 17-34. S. Low and N. Smith (eds). Routledge, New York.
- _____. 2007. *A Brief History of Neoliberalism*. Oxford University Press. New York.
- Jessop, B. 1997a. "The Entrepreneurial City: Reimaging Localities, Redesigning Economic Governance or Restructuring Capital?" In *Transforming Cities: Contested Governance and New Spatial Divisions*, pp. 28-41. N. Jewson and S. MacGregor (eds). Routledge. London.
- _____. 1997b. "Capitalism and Its Future: Remarks on Regulation, Government and Governance". *Review of International Political Economy* 4(3): 561-581.
- _____. 2006. "Spatial Fixes, Temporal Fixes and Spatio-Temporal Fixes." In *David Harvey: A Critical Reader*, pp. 142-166. N. Castree and D. Gregory (eds). Blackwell. Malden, MA.
- Jessop, B., and N. L. Sum. 2000. "An Entrepreneurial City in Action: Hong Kong's Emerging Strategies in and for (Inter)Urban Competition". *Urban Studies* 37 (12): 2287-2313.
- Keil, R. 1998. "Globalization Makes States: Perspectives of Local Governance in the Age of the World City." *Review of International Political Economy* 5 (4): 616-646.
- _____. 2009. "The Urban Politics of Roll-with-it Neoliberalism". *City* 13(2-3): 231-245.
- Kipfer, S., and R. Keil. 2002. "Toronto Inc.? Planning the Competitive City in the New Toronto." *Antipode* 34 (2): 227-264.
- Larsen, J., J. Urry, and K. W. Axhausen. 2006. *Mobilities, Networks, Geographies*. Ashgate Publishing, Ltd. Burlington, VT.
- Leitner, H. 1990. "Cities in Pursuit of Economic Growth: The Local State as Entrepreneur." *Political Geography Quarterly* 9(2): 146-170.
- Leitner, H., and E. Sheppard. 1998. "Economic Uncertainty, Inter-Urban Competition and the Efficacy of Entrepreneurialism." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*, pp. 285-308. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Lim, C.Y. 1990. "The Schumpeterian Road to Affluence and Communism". *Malaysian Journal of Economic Studies* 27: 213-223.
- Logan, J.R., and H.L. Molotch. 1987. *Urban Fortunes: The Political Economy of Place*. University of California Press. Berkeley.
- Lorrain, D., and G. Stoker. 1997. *The Privatisation of Urban Services in Europe*. Routledge. London.
- MacLeod, G. 1997. "Globalizing Parisian Thought-Waves: Recent Advances in the Study of Social Regulation, Politics, Discourse and Space." *Progress in Human Geography* 21 (4): 530-553.
- _____. 2011. "Urban Politics Reconsidered." *Urban Studies* 48 (12): 2629 -2660.
- Massey, D. 1995. *Spatial Divisions of Labor: Social Structures and the Geography of Production*. 2nd Ed. Routledge. London.
- Olds, K. 2001. *Globalization and Urban Change: Capital, Culture, and Pacific Rim Mega-Projects*. Oxford University Press. Oxford.
- Painter, J. 1995. "Regulation Theory, Post-Fordism and Urban Politics." In *Theories of Urban Politics*, pp. 276-95. D. Judge, G. Stoker and H. Wolman (eds). SAGE, London.
- _____. 1998. Entrepreneurs Are Made, Not Born: Learning and Urban Regimes in the Production of Entrepreneurial Cities." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*, pp. 259-273. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Peck, J. 2006. "Liberating the City: Between New York and New Orleans." *Urban Geography* 27 (8): 681-713.
- Peck, J., and A. Tickell. 2002. "Neoliberalizing Space." *Antipode* 34 (3): 380-404
- Roberts, S., and R. Schein. 1993. "The Entrepreneurial City: Fabricating Urban Development in Syracuse, New York". *Professional Geographer* 45 (1): 21-33.
- Robinson, J. 2002. "Global and World Cities: A View from Off the Map." *International Journal of Urban and Regional Research* 26 (3): 531-554.

- Schumpeter, J.A. 1934. *Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. Harvard University Press. Cambridge, MA.
- Short, J.R., and Y.H. Kim. 1998. "Urban Crises/Urban Representations: Selling the City in Difficult Times." In *The Entrepreneurial City: Geographies of Power, Regime and Representation*, pp. 55-75. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Smith, N. 1996. *The New Urban Frontier: Gentrification and the Revanchist City*. Routledge. London
- Stone, D.L. 2004. "Transfer Agents and Global Networks in the 'Transnationalisation' of Policy." *Journal of European Public Policy* 11 (3): 545-566.
- Swyngedouw, E. 1993. "Communication, Mobility and the Struggle for Power over Space." In *Transport and Communications in the New Europe*, pp. 305-325. G. Giannopoulos and A. Gillespie (eds).
- US Department of Housing. 1982. *National Urban Policy Report*. Washington, DC.
- Ward, K.G. 2000. "A Critique in Search of a Corpus: Re-visiting Governance and Re-interpreting Urban Politics." *Transactions of the Institute of British Geographers* 25 (2): 169-185.
- Ward, S. 1998. "Place Marketing: A Historical Comparison of Britain and North America." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*, pp. 31-53. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Weber, R. 2002. "Extracting Value from the City: Neoliberalism and Urban Redevelopment." *Antipode* 34 (3): 519-540.
- Wood, A. 1996. "Analysing the Politics of Local Economic Development: Making Sense of the Cross-National Convergence". *Urban Studies* 33(8) 1281-1295.
- . 1998a. "Questions of Scale in the Entrepreneurial City." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*, pp. 275-284. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- . 1998b. "Making Sense of Urban Entrepreneurialism." *Scottish Geographical Magazine* 114(2): 120-123.

Chapter Three

- Barnett, J. 2007. *Smart Growth in a Changing World*. APA Planners Press. Chicago, IL.
- Brottemarkle, B. D. 1999. *Beyond the Theme Parks: Exploring Central Florida*. University Press of Florida. Gainesville.
- Burnett, R. 2008, January 2. "Medical, defense fields may join in simulation work." *Orlando Sentinel*, The (FL). Final ed., C1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, October 19. "Sim-training has lots ahead." *Orlando Sentinel*, The (FL). Final ed., M3. Retrieved from NewsBank on-line database. Access World News.
- . 2010, December 2. "Real-life lessons - Companies shift focus from military to the health-care field." *Orlando Sentinel*, The (FL). Final ed., B5. Retrieved from NewsBank on-line database. Access World News.
- Chapin, T. 2002. "Beyond the Entrepreneurial City: Municipal capitalism in San Diego". *Journal of Urban Affairs* 24(5): 565-581.
- City of Orlando .2005. Baldwin Park-NTC History.
http://www.cityoforlando.net/planning/cityplanning/BP_history.htm and
<http://www.cityoforlando.net/planning/ntc/ntcclos.htm>
- City of Orlando. 20102. *Medical City Page*.
http://www.cityoforlando.net/elected/mayor/soc04_medical.htm
- Clarke, K. S. 2011, February 23. "N.C. pro hired to spur local economic development." *Orlando Sentinel*, The (FL). Final ed., B5. Retrieved from NewsBank on-line database. Access World News.
- Department of Defense (DoD). 1996, December 13. *Defense base realignment and closure budget data for the closure of Naval Training Center Orlando, Florida, and realignment of maintenance and*

- storage facilities to TAFT US Army Reserve Center Orlando, Florida.* Audit Report. Office of the Inspector General. Report No. 97-046.
- Deseret Ranch. 2013. Website. <http://www.deseretranchflorida.com/>
- Deslatte, A. 2012, June 17. "Can state's biotech projects be weaned off subsidies?" *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- Environmental Protection Agency (EPA). 2009. "Award Winning Urban Community Result of Collaboration and Team Work: Orlando Naval Training Center." In *Federal Facilities Restoration and Reuse Office Bulletin*.
- Florida Hospital. 2013. *About Us*. History and Organization. <https://www.floridahospital.com/about>
- Foglesong, R. 2001. *Married to the Mouse: Walt Disney World and Orlando*. Yale University Press. New Haven, CT.
- Hamburg, J. 2006, February 20. "Regional project tries to envision future that works." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- Hollenhorst, J. 2011. "LDS Church ranch making big impact in Florida". KLS.com <http://www.ksl.com/?nid=960&sid=15602133#zTseYE5KzyAJZs4l.99>
- Holstein, W. J. 2011. *The Next American Economy: Blueprint for a Real Recovery*. Walker Books. New York.
- Hood, G., and B. Bachmann. 1997. *Orlando: The City Beautiful*. Towery Publishing. Memphis, TN.
- Jameson, M. 2012, January 9. "Medical City fills out this year." *Orlando Sentinel, The* (FL). Final ed., B6. Retrieved from NewsBank on-line database. Access World News.
- Johnson, L.B. *Remarks in Orlando, Florida*. October 26, 1964. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project*. <http://www.presidency.ucsb.edu/ws/?pid=26657>
- Kassab, B. 2009, April 13. "Slump delays UF's Medical City outpost." *Orlando Sentinel, The* (FL). Final ed., 2. Retrieved from NewsBank on-line database. Access World News.
- . 2009, June 22. "Orlando still after solar company." *Orlando Sentinel, The* (FL). Final ed., M2. Retrieved from NewsBank on-line database. Access World News.
- . 2009, October 9. "Is Burnham the next Disney?" *Orlando Sentinel, The* (FL). Final ed., B6. Retrieved from NewsBank on-line database. Access World News.
- . 2010, January 25. "\$1.5B for biotech so far and more needed." *Orlando Sentinel, The* (FL). Final ed., M1. Retrieved from NewsBank on-line database. Access World News.
- . 2010, July 14. "Tavistock demolishing old Agere plant." *Orlando Sentinel, The* (FL). Final ed., B5. Retrieved from NewsBank on-line database. Access World News.
- . 2012, June 19. "Biotech dreams really awaken to bitter reality." *Orlando Sentinel, The* (FL). Final ed., A3. Retrieved from NewsBank on-line database. Access World News.
- Lafferty, M. 2009, January 4. "Central Floridian of the Year Dr. Deborah German - The risk-taking dynamo driving UCF's med school." *Orlando Sentinel, The* (FL). Final ed., A16. Retrieved from NewsBank on-line database. Access World News.
- Laws of Florida. 1963, June 10. Chapter 63-347. Senate bill 125. Establishing Florida Technical University.
- Leitner, H., and E. Sheppard. 1998. "Economic Uncertainty, Inter-urban Competition and the Efficacy of Entrepreneurialism." In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*, pp. 285-308. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Maize. 2009, February 25. "Doctor's orders - We think: It's vital to make sure Florida's new medical schools get the money they need." *Orlando Sentinel, The* (FL). Final ed., A12. Retrieved from NewsBank on-line database. Access World News.
- Mathers, S., R. Perez and R. McKay. 2006, March 8. "\$75,000 OK'd for group studying grow control." *Orlando Sentinel, The* (FL). Final ed., D7. Retrieved from NewsBank on-line database. Access World News.
- MyRegion. 2007. *How Shall We Grow: A shared vision for Central Florida*. Distributed by MyRegion.Org and Central Florida Partnership.

- . 2009. *How Shall We Grow: Supplement*. Distributed by MyRegion.Org and Central Florida Partnership.
- . 2013. *About MyRegion.org*.
<http://www.myregion.org/index.php?submenu=About&src=gendocs&ref=ProjectHistory&category=About>
- NASA. 2012. Florida Space Grant Consortium. <http://floridaspacegrant.org/>
- OOCEA. 2011. *Expressway History*. Website updated on April, 27th, 2011.
<http://www.expresswayauthority.com/Corporate/about/History/ExpresswayHistory.aspx?show=from1993>
- Orlando Health. 2013. *About Us*. <http://www.orlandohealth.com/orlandohealth/index.aspx>
- Patel, K. 2010, January 20. *University of Central Florida History*. Retrieved March 28, 2012 from <http://ezinearticles.com/?University--of--Central--Florida--History&id=3613125>
- PennDesign. 2010. *Connecting for Global Competitiveness: Florida's Super Region*. University of Pennsylvania Department of City and Regional Planning. Distributed by Central Florida Partnership and The Tampa Bay Partnership.
- Quintero, F. 2009, September 18. "Burnham, Duke will join forces." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, October 4. "Building 'medical city': Burnham's arrival - For region, impact may rival Disney's." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2010, February 8. "Defense grant to boost robotic surgery research." *Orlando Sentinel, The* (FL). Final ed., M11. Retrieved from NewsBank on-line database. Access World News.
- . 2010, February 10. "VA facility to lead in high-tech training." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- Robison, J., and M. Andrews. 1995. *Flashbacks: The Story of Central Florida's Past*. The Orange County Historical Society and *The Orlando Sentinel*.
- Sage. 2010, July 29. "'The next big thing' - The region's leaders need to capitalize on simulation in health care." *Orlando Sentinel, The* (FL). Final ed., A18. Retrieved from NewsBank on-line database. Access World News.
- Shanklin, M. 2009, December 28. "Medical city behind schedule for generating tax revenue." *Orlando Sentinel, The* .FL.CENTRAL FLORIDA ed., A1. Retrieved from NewsBank on-line database. Access World News.
- Sheinkopf, K. G., and C. N. Millican .1976. *Accent on the Individual: The First Twelve Years of Florida Technological University, Orlando*. Florida Technological University Foundation. Orlando, FL.
- Shofner, J. H. 2001. *Building a Community: The History of the Orlando-Orange County Expressway Authority*. Orlando-Orange County Expressway Authority. FL.
- Smith, M. 2012. *RTC Orlando: A History*. <http://rtcorlando.homestead.com/>
- Stone, C.N. 1989. *Regime Politics: Governing Atlanta, 1946–1988*. University Press of Kansas. Lawrence, KS.
- Tracy, D. 2012, November 15. "Myregion.org wants \$128,000 for values study." *Orlando Sentinel, The* (FL). Final ed., A12. Retrieved from NewsBank on-line database. Access World News.
- Tracy, D., and D. Breen. 2012, May 7. "Future growth drives plan for \$70M interchange." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- Turner, K. 2013, July 21. "Solar group audit finds \$1.3M shortfall." *Blade, The* (Toledo), OH Retrieved from NewsBank on-line database. Access World News.
- University of Central Florida (UCF). 2012. *UCF: 50 Years*. <http://www.ucf.edu/50/history/>.
- W. Jackson, J. 2008, March 18. "'Medical City' will survive Lewis' loss." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.

- _____. 2008, March 26. "Biotech's big boost - Many real-estate developers pin their hopes on life sciences." *Orlando Sentinel, The* (FL). Final ed., C1. Retrieved from NewsBank on-line database. Access World News.
- Wenzel, J. 2012. "Sunshine, Booze, and Monkeys: The Anthropology of Florida Tourism." Paper presented at the Central Florida Anthropological Society meeting on March 8, 2012.
- Zaragoza, L. 2008, December 20. "Benefit of med school? \$7.6B." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.

Chapter Four

- Brock, T. J., and R. R. Souleyrette. 2013. *An Overview of U.S. Commuter Rail*. NuRail UTC research report. Distributed by the NuRail and KTC.
- Cooper, C.D., and J. Ross. 2011. *Fifth annual report and contingency plan for air emissions reduction in central Florida*. University of Central Florida Department of Civil, Environmental and Construction Engineering.
- Cotey, A. 2011. "Central Florida business and community leaders can't wait for SunRail to arrive." *Progressive Railroading*.
- CSXT and FDOT. 2007, November 30. Central Florida Operating Agreement and Management Agreement: State of Florida DOT and CSX Transportation. Pertaining to the Central Florida Rail Corridor, a line of railroad between Deland, Florida and Poinciana, Florida, and related properties.
- _____. 2007, November 30. Transition Agreement: State of Florida DOT and CSX Transportation. Pertaining to the Central Florida Rail Corridor, a line of railroad between Deland, Florida and Poinciana, Florida, and related properties.
- _____. 2010, March 29. Amended Central Florida Operating Agreement and Management Agreement: State of Florida DOT and CSX Transportation. Pertaining to the Central Florida Rail Corridor, a line of railroad between Deland, Florida and Poinciana, Florida, and related properties.
- _____. 2010, March 29. First Amendment to Transition Agreement: State of Florida DOT and CSX Transportation. Pertaining to the Central Florida Rail Corridor, a line of railroad between Deland, Florida and Poinciana, Florida, and related properties.
- Deslatte, A. 2009, February 19. "SunRail passes 1st test in House - Panel backs regional commuter train 14-3 over union opposition." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2009, March 5. "Commuter rail on track with key vote." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- Editorial Staff. 1989, October 1. "Slow train to feud world." *The Orlando Sentinel, The* (FL) G2. Retrieved from NewsBank on-line database. Access World News.
- _____. 2009, October 7. A boost from Washington. *Orlando Sentinel, The* (FL). Final ed., A20. Retrieved from NewsBank on-line database. Access World News.
- _____. 2009, February 5. "Governor Rail - We think: Charlie Crist rightly adds SunRail to his to-do list." *Orlando Sentinel, The* (FL). Final ed., A10. Retrieved from NewsBank on-line database. Access World News.
- _____. 2009, February 13. "Stay on track - We think: Panic, misguided attacks shouldn't stop SunRail." *Orlando Sentinel, The* (FL). Final ed., A18. Retrieved from NewsBank on-line database. Access World News.
- _____. 2009, February 24. "All aboard - We think: Lawmakers need to approve SunRail, now more than ever." *Orlando Sentinel, The* (FL). Final ed., A8. Retrieved from NewsBank on-line database. Access World News.

- _____. 2009, October 7. "A boost from Washington." *Orlando Sentinel, The* (FL). Final ed., A20. Retrieved from NewsBank on-line database. Access World News.
- Florida Department of Transportation (FDOT). 2006. "Quality Time". FDOT Commuter Rail Brochure.
- _____. 2006. "Summary of agreement in principle between CSXT and FDOT". FDOT Commuter Rail Brochure.
- _____. 2007. "CSX agreement in principle". Presented to Seminole County Commission by FDOT.
- _____. 2008. "Project management plan for the Central Florida Commuter Rail Transit." FDOT - District 5.
- _____. 2008. "Summary of agreement in principle between CSXT and FDOT". FDOT Commuter Rail Brochure.
- _____. 2011. "About SunRail". FDOT Commuter Rail Brochure
- _____. 2011. "Transportation and Maintenance Operations Plan For the Central Florida Commuter Rail Transit Project (TMOP)." Prepared for SunRail and FDOT. Version 6: March 24, 2011.
- _____. 2012. "Transportation and Maintenance Operations Plan For the Central Florida Commuter Rail Transit Project (TMOP)." Prepared for SunRail and FDOT. Version 7: March 20, 2012.
- _____. 2012. "Monthly Progress Report: January 1 – February 15, 2012". FDOT District 5 Report.
- Florida Hospital Press Release. 2011, July 18. "Elected Officials Join Florida Hospital for Sunrail Kick-off: Orlando Mayor Buddy Dyer, US Transportation Secretary Ray LaHood and Hundreds of Residents Celebrate SunRail Kick-Off."
- Foglesong, R. 2001. *Married to the Mouse: Walt Disney World and Orlando*. Yale University Press. New Haven, CT.
- Grengs, J. (2001). "Does Public Transit Counteract the Segregation of Carless Households? Measuring Spatial Patterns of Accessibility." *Transportation Research Record* 1753: 3-10.
- Grovdahl, D.L. 2007. Headlines: A Chronology of Passenger Rail Proposals in Central Florida Through Media Headlines and Story Excerpts. Distributed by MetroPlan Orlando.
- Interlocal Funding Agreement for Acquisition and Construction of the Central Florida Commuter Rail System. July 19, 2007. Orange Co., Osceola Co., Seminole Co., Volusia Co. and City of Orlando and FDOT.
- Lafay, L. 1990, May 19. "Bullet Train Plans Catch Disney's Eye." *Orlando Sentinel, The* (FL). 3 Star Ed., D1. Retrieved from NewsBank on-line database. Access World News.
- Letters of Support. 2011. "SunRail Resolutions and Letter of Support: From businesses, civic organizations and local governments."
- Lynx Website. 2012. "About". Accessed June, 2012. www.golynx.com
- Maxwell, S., and J. Stratton. 1999, September 9. "End Of Line For Light Rail - Orange County Commissioners' 4-3 Vote Effectively Killed The Controversial \$600 Million Project." *Orlando Sentinel, The* (FL). METRO ed., A1. Retrieved from NewsBank on-line database. Access World News.
- MetroPlan Orlando. 2010. "Passenger rail: From plan to reality". *TransForum*. Winter edition.
- Mica, J., and C. Brown. 2011, June 28. Letter from US House of Representatives: Committee on Transportation and Infrastructure to FDOT Secretary A. Prasad.
- Orlando Mayor's Office. 2011. "SunRail Timeline." Central Florida Rail Timeline. City of Orlando, Office of the Mayor.
- Robison, J., and M. Andrews. 1995. *Flashbacks: The Story of Central Florida's Past*. The Orange County Historical Society and *The Orlando Sentinel*.
- Stratton, J., and S. Maxwell. 1999, September 8. I'-Drive Hands Light Rail A Victory - However, An Orange Commissioner Hinted He Could Change His Vote On The Projects To No." *Orlando Sentinel, The* (FL). METRO ed., A1. Retrieved from NewsBank on-line database. Access World News.
- SunRail Press Release. 2011. "FDOT Secretary Prasad: SunRail moves forward." Released July 1, 2011.
- SunRail Website. 2012. "SunRail Funding and Revenue." Accessed June, 2012. www.sunrail.com

- Thomas, M. 2010, November 7. "Has Republican roadblock fallen on tracks of Florida's high-profile rail projects?" *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- Tracy, D. 1989, April 9. "'Big Hitters' Behind Superfast Rail System." *Orlando Sentinel, The* (FL). 3 Star ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 1989, April 26. "3 Ideas For Transit Rolled Out - Systems Would Carry Residents And Tourists." *Orlando Sentinel, The* (FL). 3 Star ed., B1. Retrieved from NewsBank on-line database. Access World News.
- . 1989, July 30. "A Train Trip With All The Trimmings - Maglev Builders Win Points For Hospitality." *Orlando Sentinel, The* (FL). 3 Star ed., B1. Retrieved from NewsBank on-line database. Access World News.
- . 1989, June 22. "Osceola Study Shows Train Stealing 1 Million Tourists." *Orlando Sentinel, The* (FL). 3 Star ed., D1. Retrieved from NewsBank on-line database. Access World News.
- . 1989, June 24. "Maglev's Only Train Disney Will Support." *Orlando Sentinel, The* (EL). 3 Star ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 1989, July 28. "200-Mph Ride On Maglev A Fast Hit With Floridians." *Orlando Sentinel, The* (FL). 3 Star Ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, January 15. "Lawyers get their way, won't fight SunRail." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, February 22. "SunRail's roadblocks - It may be now or never for Orlando's grand plan to get commuters off I-4 and onto a daily train. Here's what the project's boosters have to overcome." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, February 23. "Not all aboard - Lakeland would bear brunt of freight trains rerouted for sake of SunRail." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, April 3. "Siplin: Schools outweigh SunRail." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, April 7. "NAACP announces opposition to SunRail." *Orlando Sentinel, The* (FL). Final ed., C3. Retrieved from NewsBank on-line database. Access World News.
- . 2009, April 20. "Dockery: Sunrail's ok, but this deal's awful." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, April 29. "SunRail has 3 days to get 21 senators on board." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, April 30. "SunRail hangs in balance before today's Senate vote." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2009, October 6. "Senators told to 'get act together' on SunRail." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2010, January 29. "Rail: obama's on board." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2010, February 18. "Scramble is on to link 2 trains; why no plan?" *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- . 2010, February 22. "On track for hiring - 2 train projects to bring jobs later this year." *Orlando Sentinel, The* (FL). Final ed., M1. Retrieved from NewsBank on-line database. Access World News.
- . 2010, October 14. "SunRail-Amtrak deal close, officials say." *Orlando Sentinel, The* (FL). Final ed., B3. Retrieved from NewsBank on-line database. Access World News.
- . 2010, October 23. "Amtrak, Dyer cite progress, but FDOT still lacks deal for SunRail." *Orlando Sentinel, The* (FL). Final ed., B5. Retrieved from NewsBank on-line database. Access World News.

- _____. 2010, December 9. "SunRail back on track: Amtrak ends face-off." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, February 1. "SunRail's fate still muddled." *Orlando Sentinel, The* (FL). Final ed., B2. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, February 10. "Dyer finds hope for SunRail in Scott plan." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, March 8. "Does CSX connection give SunRail hope of survival?" *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, May 2. "Can governor legally knock SunRail off track?" *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, June 17. "State DOT chief to take SunRail warning on road." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, June 28. "SunRail tour starts today in Volusia." *Orlando Sentinel, The* (FL). Final ed., B2. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, June 30. "Scott may announce SunRail's fate Friday." *Orlando Sentinel, The* (FL). Final ed., B3. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, July 2. "Wait's over: SunRail gets green light." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- Tracy, D., and A. Deslatte. 2009, December 1. "SunRail session this week." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2009, December 17. "SunRail signed into law - Crist: 'Jobs, jobs, jobs' will roll in." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, January 29. "Scott stalls 4 SunRail contracts." *Orlando Sentinel, The* (FL). Final ed., B1. Retrieved from NewsBank on-line database. Access World News.
- _____. 2011, March 2. "Lawmakers' aim: Force Scott to build train." *Orlando Sentinel, The* (FL). Final ed., A1. Retrieved from NewsBank on-line database. Access World News.
- VoTran Website. 2012. "VoTran and SunRail" Accessed June, 2012. www.votran.org
- Wicker, T.B. 1990, March 18. "Escape From Gridlock? Florida A Leader Among States Pressing For High-Speed Rail.: *Orlando Sentinel, The* (FL). 3 STAR ed., H3. Retrieved from NewsBank on-line database. Access World News.

Chapter Five

- Brock, T., and J. Crick. 2013. "The politics of city building: Pro-growth planning regimes and equitable distribution of infrastructure." *Carolina Planning Journal* 38: 17-24.
- Brock, T. J. and R. R. Souleyrette. 2013. *An Overview of U.S. Commuter Rail*. NuRail UTC research report. Distributed by the NuRail and KTC.
- Cervero, R. 2004. *Transit-oriented development in the United States: experiences, challenges, and prospects*. Vol. 102. Transportation Research Board.
- Dr. Phillips Center Website. 2014. Accessed March, 2014. <http://www.drphillipscenter.org/>
- East Central Florida Comprehensive Economic Development Strategy. 2007. The East Central Florida Regional Planning Council. September, 25, 2007.
- Florida Department of Transportation (FDOT). 2007. Central Florida Commuter Rail: Transit Oriented Development Sketchbook. FDOT Commuter Rail Brochure.
- Florida Department of Transportation (FDOT). 2011. SunRail: Transit Oriented Development Sketchbook. FDOT Commuter Rail Brochure.
- Florida, R.L. 2005. *Cities and the Creative Class*. Routledge. London.
- Fluker, A. 2011, September 16. "Tupperware project includes SunRail station: Firm to prepare 100-plus acres for transit-oriented development". *Orlando Business Journal*.
- _____. 2013, October 31. "Tupperware preps for SunRail Station". *Orlando Business Journal*.

- . 2014, January 9. “Exclusive: Tupperware seeks Osceola OK for new 100-acre mixed-use projects”. *Orlando Business Journal*.
- Hess, D. B., and P. A. Lombardi. 2004. “Policy support for and barriers to transit-oriented development in the inner city: Literature review.” *Transportation Research Record: Journal of the Transportation Research Board* 1887(1): 26-33.
- Jameson, M. 2012, November 29. “\$55M bioresearch center coming at Health Village.” *Orlando Sentinel, The* (FL), A14. Retrieved from NewsBank on-line database. Access World News.
- . 2013, June 10. “Sunrail will provide a gateway to Florida Hospital Health Village.” *Orlando Sentinel, The* (FL). D1. Retrieved from NewsBank on-line database .Access World News.
- Kassab, B. 2009, December 16. “Other Orlando 'medical city' ready to grow.” *Orlando Sentinel, The* (FL). Final ed., B5. Retrieved from NewsBank on-line database. Access World News.
- Painter, J. 1998. Entrepreneurs are Made, not Born: Learning and Urban Regimes in the Production of Entrepreneurial Cities.” In *The Entrepreneurial City: Geographies of Politics, Regime and Representation*, pp. 259-273. T. Hall and P. Hubbard (eds). John Wiley and Sons. New York.
- Schlueb, M. 2014, February 6. “Major new development start on last vacant block downtown.” *Orlando Sentinel, The* (FL). Retrieved from NewsBank on-line database. Access World News.
- Shanklin, M. 2012, April 17. “Orlando Health buys sites by SunRail stop.” *Orlando Sentinel, The* (FL). Final ed., A10. Retrieved from NewsBank on-line database. Access World News.
- . 2012, May 4. “Florida Hospital plans to build apartments, sense of community.” *Orlando Sentinel, The* (FL), A1. Retrieved from NewsBank on-line database. Access World News.

APPENDICES

Appendix A: Research Interviews

1. The Orlando Sentinel. Transportation Desk Staff Writer. May 18, 2011.
2. Osceola County. County Commissioner and SunRail Governing Board Member. May 18, 2011.
3. Orange County. Regional Mobility Director and SunRail Technical Advisory Committee Member. May 19, 2011.*
4. Orange County. Assistant to the Growth Management Director. May 19, 2011.*
5. Florida Department of Transportation. SunRail Project Manager. May 20, 2011.
6. Florida Department of Transportation. SunRail Project Public Liaison. May 20, 2011.
7. Seminole County. County Commissioner and SunRail Governing Board Member. May 23, 2011.
8. Tri-Rail, South Florida Regional Transportation Authority. Manager of Planning and Capital Development. May 24, 2011.
9. City of Orlando. Director of Transportation Planning and SunRail Technical Advisory Committee Member. May 25, 2011.
10. CSX Transportation, Resident Vice-President of Florida and Community Affairs. May 25, 2011.
11. MetroPlan Orlando. Deputy Executive Director. March 6, 2012.
12. Florida Department of Transportation. SunRail Project Manager. March 7, 2012 (follow up interview).
13. Florida Department of Transportation. SunRail Public Liaison. March 7, 2012 (follow up interview).
14. Hispanic Chamber of Commerce of Metro Orlando. President. March 8, 2012.
15. City of Orlando. Consultant and Former Director of Transportation Planning. March 12, 2012 (follow up interview).
16. Leadership Seminole. President. March 13, 2012.
17. Seminole County Economic Development. Executive Consultant and Former Director. March 13, 2012.
18. Seminole County Economic Development. Economic Development Planner. March 13, 2012.
19. Central Florida Partnership. MyRegion. President. March 13, 2012.
20. City of Orlando. Transportation Planning Division Manager. March 14, 2012.*
21. City of Orlando. Transportation Planner. March 14, 2012.*
22. City of Orlando, Office of the Mayor. Transportation Policy Advisor. May 15, 2012.
23. City of Longwood. City Commissioner. March 15, 2012.
24. LYNX, Central Florida Regional Transportation Authority. General Manager. March 15, 2012.*
25. LYNX, Central Florida Regional Transportation Authority. Director of Planning and Development. March 15, 2012.*
26. VoTran, Volusia County Public Transit System. General Manager. March 20, 2012.
27. AECOM. Director of Transportation - Americas. May 2, 2012.

* Indicates interviews that were conducted simultaneously with both research participants

Appendix B: US Commuter Rail Systems
 (Brock and Souleyrette, 2013)

System Name	Location	Classification	Date	Legacy Date	Miles	Stations	Daily Ridership	MSA
Rail Runner Express	Albuquerque/Santa Fe, NM	New Start	2006	----	97	11	4,000	887,077
Capital MetroRail	Austin, TX	New Start	2011	----	32	9	1,600	1,716,000
MARC	Baltimore/Washington DC	Legacy	1984	1827	200	42	33,700	8,292,659
MBTA	Boston, MA	Legacy	1973	1830	368	123	130,700	4,552,402
Metra	Chicago, IL	Legacy	1984	1856	488	239	304,300	9,461,105
NICTD South Shore Line	Chicago, IL/South Bend, IN	Legacy	1989	1903	90	19	12,100	9,780,329
Trinity Railway Express	Dallas/Ft. Worth, TX	New Start	1996	----	34	10	8,400	6,371,773
A-Train	Denton/Dallas, TX	New Start	2011	----	21	6	1,400	6,371,773
MetroLink	Los Angeles, CA	New Start	1992	----	512	55	43,100	12,828,837
Tri-Rail	Miami, FL	New Start	1987	----	72	18	14,000	5,564,635
NorthStar	Minneapolis/St. Paul	New Start	2009	----	40	6	2,100	3,279,833
Music City Star	Nashville, TN	New Start	2006	----	32	6	1,100	1,589,934
Shore Line East	New Haven, CT	New Start	1990	----	59	11	2,100	862,477
MTA - Long Island	New York, NY	Legacy	1966	1834	700	124	324,300	18,897,109
MTA - Metro North	New York, NY	Legacy	1983	1832	384	120	281,200	18,897,109
NJ Transit	Newark, NJ	Legacy	1983	1830's	498	165	NA	18,897,109
SEPTA	Philadelphia, PA	Legacy	1983	1915	289	153	123,500	5,965,343
Keystone Line	Philadelphia/Harrisburg, PA	New Start	2006	----	104	12	1,800	6,514,818
Downeaster	Portland, ME	New Start	1995	----	116	12	1,400	514,098
Westside Express Service	Portland, OR	New Start	2009	----	15	5	1,600	2,226,009
FrontRunner	Salt Lake City, UT	New Start	2008	----	44	8	5,600	1,124,197
Coaster	San Diego, CA	New Start	1995	----	42	8	5,300	3,095,313
Caltrain	San Francisco, CA	Legacy	1987	1863	75	32	42,400	6,172,302

Altamont Commuter Express	San Jose, CA	New Start	1998	----	86	10	3,100	1,836,911
Sounder	Seattle, WA	New Start	2000	----	82	10	9,900	3,439,809
Virginia Railway Express	Washington, DC/Alexandria, VA	New Start	1992	----	90	18	19,200	5,582,170

Vitae

Timothy J. Brock

EDUCATION

Master of Arts in Geography**2006****University of Kansas, Lawrence, Kansas**

Thesis: The Brazilian Demarcation Movement: Examining the Assumptions of Indigeneity and Scale

Bachelor of Arts in Anthropology**2004****Georgia Southern University, Statesboro, Georgia**

Thesis: Landscape Representations of Yucca Mountain: A Multi-scalar Examination of the Nuclear Waste Repository Debate

Honors: College Honors Program, University Honors Program, Magna Cum Laude

PROFESSIONAL EMPLOYMENT

Assistant Professor**2014-Present**

Geography, Geology and Planning Department
Missouri State University

Transportation Research Associate**2010-2014**

Kentucky Transportation Center, University of Kentucky

Adjunct Instructor**2009-2010**

Department of Geography and Geology
Department of Anthropology, Sociology and Social Work
Eastern Kentucky University

Archaeology Outreach Coordinator**2007-2009**

Florida Public Archeology Network, East Central Region

Environmental Planner / Green Development Coordinator**2006-2007**

University of Georgia Marine Extension Service, Brunswick Station

Teaching Assistant**2004-2006**

Department of Geography
University of Kansas

RESEARCH GRANTS AND FUNDING AWARDS

*Individual Grants and Awards***UK Dissertation Enhancement Award****2011-2012**

University of Kentucky, Graduate School

Barnhart-Withington Research Grant	2010-2011
<i>University of Kentucky, Department of Geography</i>	
Award Amount: \$1,000	
Transportation Systems Management Scholarship	2009-2010
University of Kentucky, College of Engineering	
Ezra Gillis Graduate Tuition Scholarship	2009-2011
<i>University of Kentucky, Graduate School</i>	

PUBLICATIONS

Academic Publications – Peer Reviewed:

Brock, Timothy J. and Jeffrey S. Crick. (2013). The Politics of City Building: Pro-growth planning regimes and equitable distribution of infrastructure. *Carolina Planning Journal*, 38, 17-24.

Larsen, Soren C. and **Timothy J. Brock** (2005). Great Basin Imagery in Newspaper Coverage of Yucca Mountain. *Geographical Review*, 95(4), 517-536.

Academic Publications – Contributions to Edited Reference Volumes:

Wood, Andrew M. and **Timothy J. Brock** (forthcoming). ‘Urban Entrepreneurialism’ in *International Encyclopedia of the Social and Behavioral Sciences*, 2nd Edition. Ed Wright, JD.

Brock, Timothy J. (forthcoming). ‘Commuter Rail’, ‘Transit Oriented Development’ and ‘Inland Waterways Planning’ as Keywords in *The Encyclopedia of Transportation Social Science and Policy*. Eds Garret, M. and J.G. Golsom. SAGE Reference

Academic Publications – Invited Essays and Book Reviews:

Brock, Timothy J. (2013). Book Review of *Charlotte, NC: The global evolution of a new south city* by William Graves and Heather A. Smith. Reviewed for *Material Culture*. 45(2), 65-67.

Brock, Timothy J. (2011). Reflections on the Disciplinary Intersection of Geography and Anthropology in the American Academy. *anthropologies*, 1(6). September issue.

Professional Publications and Reports:

Brock, Timothy J. and Reginald R. Souleyrette (2013). *A National Survey of Commuter Rail Policy*. NuRail UTC research report. Distributed by the NuRail and KTC.

Brock, Timothy J. (2011). *Preparing for Post-Panamax Commodity Flows: The Impacts of Freight Restructuring on Kentucky Waterways*. Kentucky Transportation Center, Waterways Research Program, Distributed by KTC.

Knowles, Chuck, Candice Wallace, Ben Blandford, **Timothy J. Brock**, and Andrew Martin. (2011). *States’ Support of Non-Highway Modes of Transportation: Investigation and Synthesis*. Kentucky Transportation Center research report for Kentuckians for Better Transportation, Distributed by KBT.