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Recommitting to the Car? the Politics of Multimodal Transportation in Wisconsin

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RECOMMITTING TO THE CAR?

THE POLITICS OF MULTIMODAL TRANSPORTATION IN WISCONSIN

by

Gregg Culver

A Dissertation Submitted in

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Abstract
RECOMMITTING TO THE CAR?
THE POLITICS OF MULTIMODAL TRANSPORTATION IN WISCONSIN

by

Gregg Culver

The University of Wisconsin-Milwaukee, 2014
Under the Supervision of Professor Linda McCarthy

In this dissertation research, I investigate two cases which exemplify a larger politics of multimodal transportation in Wisconsin: the 2010 Wisconsin high-speed rail (HSR) debate; and the 2011 debate over whether to add a bike path to Milwaukee's Hoan Bridge during its redecking. In both case studies, I trace the politics of these projects, and investigate how the decisions not to pursue these projects came to be legitimized. I approach these case studies using a transportation-focused politics of mobility framework, located at the intersection of transportation geography and new mobilities paradigm scholarship. Employing a range of qualitative methods, I find that not only were certain stakeholders (such as newly-elected politicians in state government, and Department of Transportation officials) significant in making decisions against these projects, but the way that transportation was thought about among the general public in Wisconsin served to legitimize the end of these projects. In the case of Wisconsin HSR, the original contribution I make is to demonstrate how the manner in which Wisconsin HSR was spatially conceptualized in the debate was ultimately significant for how the decision to abandon the project came to make logical sense to a majority of Wisconsin residents. Further, this case study contributes original insights into the meanings that HSR had for people in Wisconsin, which serves as a caution against overly rigid,

national-scale explanations of why the project failed. In the case of the Hoan Bridge bike path, the original contribution is to empirically demonstrate how the tools of traffic engineering have embedded within them particular visions of how mobility and its spaces ought to be, and that this embedded bias can be concealed by claiming that such tools are scientific, and by implication, value-free. In addition to revealing this embedded bias, the case study demonstrates that the representation of these tools to the general public can be political. Taken together, these case studies suggest that productive work can be done at the intersection of transportation geography and mobilities research by using this politics of mobility framework. Further, these case studies underline the fact that debates over transportation involve a range of competing interests, beliefs, normative values, and meanings that are bound up with transportation, and that these aspects deserve greater attention in transportation geography and mobilities research.

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Acknowledgments

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Chapter One
Introduction

In this dissertation, I investigate two cases of the politics of multimodal transportation in Wisconsin in the early 2010s. The first case study deals with the Wisconsin high-speed rail (HSR) project of 2010, the most prominent of a number of contentious transportation projects around this time. Shortly after his 2009 inauguration, President Obama announced a national vision of a high-speed rail (HSR) network in the U.S., with 31 states and the District of Columbia receiving $8 billion in federal funding for HSR projects (White House 2010b). Wisconsin's HSR project, receiving the fourth largest award at $823 million, involved the upgrade and extension of Amtrak's popular Hiawatha Chicago-Milwaukee passenger rail service, initially to Madison with plans for future expansion and speed increase to Minneapolis-St. Paul, Minnesota (White House 2010a). However, despite a history of bipartisan support, HSR became a contentious issue in the 2010 gubernatorial and midterm elections in Wisconsin, even drawing national attention (Cooper 2010, December 9; Grundwald 2010, October 29; Jones 2010, November 23; Kastenbaum 2010, December 16; 2010 November 17). With the newly-elected Governor Scott Walker's commitment to stopping the project, the federal funding for HSR was withdrawn by the U.S. Department of Transportation (Sandler 2010, December 9).

The second case study deals with a long-standing proposal for a bicycle and pedestrian path (or simply bike path) over Milwaukee's Hoan Bridge. The bike path had previously been debated beginning in late 1990s until 2002, when the Wisconsin Department of Transportation (WisDOT) delayed a final decision on the bike path until

the bridge needed to be completely redecked near the end of that decade. The proposal was then revisited in 2011 as the time for the bridge's complete redecking approached. Although the path became a matter of contention locally, it nonetheless appeared to have considerable local political, business, and public support, as well as support from City of Milwaukee traffic engineers, who viewed it as both a feasible and desirable facility for the city (Milwaukee Department of Public Works 2011). Still, WisDOT officials decided against adding a bike path to the state-owned bridge, citing concerns over the path's impact on level of service (LOS), an engineering metric used to describe and predict capacity and flow of automobiles on a roadway, as well as cost (Glauber 2011, December 16; Ryan 2011, December 16).

In both of these case studies, I trace the politics of the projects, and investigate how the decisions against these projects came to make sense and be legitimized. These two debates took place during a time in which a number of non-automobile transportation projects were in the works for Wisconsin, which had been demonstrating a discernible trend toward multimodality (the co-existence of multiple, viable modes of transportation) in the late 2000s. However, this trend came to a halt as most of these developments became topics of controversy, and were not completed. Consequently, in order to properly situate these two projects within this larger trend, it is important to briefly discuss some of the other transportation projects in various stages of planning around this period in Wisconsin.

Dane County Regional Transit Authority, and the Southeast Regional Transit Authority in Kenosha, Racine and Milwaukee counties were on their way to being authorized to raise funds locally with which they could implement commuter rail

(WisDOT 2014). The former would have operated a commuter rail system serving the city of Madison and its suburbs (DeFour 2010, November 3). The latter would have operated the KRM (Kenosha-Racine-Milwaukee) commuter rail service, which would have connected with Chicago's Metra commuter rail system from its current terminus in Kenosha, Wisconsin, north via Racine to Milwaukee. The KRM line in particular had strong business community support, including the Metropolitan Milwaukee Association of Commerce and the Greater Milwaukee Committee (Kirchen 2011, February 18; Sandler 2010, May 21), as the line would have connected three of Wisconsin's five largest cities with Chicago, itself the country's third largest city. Moreover, 525,000 people and 360,000 jobs were estimated to be within 3 miles of KRM stations alone (Southeastern Wisconsin Coalition for Transit NOW 2012). However, both of these projects were unpopular among political conservatives, particularly due to the transit authorities' ability to raise revenue within their jurisdictions. And, after the November 2010 elections in Wisconsin, the new Republican leadership introduced legislation that repealed the regional transit authorities in the state, and ended the possibilities of new commuter rail (SEWRPC 2011).

Along with the elimination of regional transit authorities came reductions in the state budget for public transit, as well as bicycling and pedestrian projects. Governor Walker's 2011-2013 biennial transportation budget included a 10% reduction to public transit funding in the state, amounting to $9.6 million annually, resulting in elimination of routes and service frequencies in some transit systems (Sandler 2011, July 6). Wisconsin had previously allotted $2.5 million annually in dedicated funds from the state's 2009-2011 biennial transportation budget to bicycle and pedestrian projects. Although this

dedicated funding accounted for a small amount, 0.038% of Wisconsin's total transportation budget (WisDOT 2011d, author calculation), it was an important source of funding for such projects (Held 2011, March 2). However, dedicated funding for bicycle and pedestrian projects was eliminated from the state's 2011-2013 budget. Having enjoyed a reputation of being a bicycle-friendly state, home to a nationally-known bicycle-related industry, the elimination of funding caused the state's prominence in bicycling to slip (Barrett 2012, December 22; Grabow et al. 2010; Held 2011, March 2; Opportunity Wisconsin! 2014; Weise 2013, May 2).

As further evidence of this trend, the City of Milwaukee has been seriously pursuing the development of a streetcar in its downtown. Though the idea has been under consideration in city government for several years (*Milwaukee Journal Sentinel* 2007, February 21), it was not until July of 2011 that the City of Milwaukee Common Council authorized the planning for the project to proceed (*Milwaukeestreetcar.com* 2014b). Construction of the initial phase of the $64.6 million project will be financed through a $54.9 million federal transit grant, and $9.7 million from local funding through a tax increment finance district (TIF) (*Milwaukee Journal Sentinel 2014,* January 16; *Milwaukeestreetcar.com* 2014a). However, the streetcar project nearly came to an end as unprecedented state legislation was crafted that aimed at making it financially unfeasible by forcing the project to carry the cost of utilities that needed to be relocated (*Milwaukee Journal Sentinel 2014,* January 16; Walker 2014, January 19; Walker and Marley 2013, May 8).

At the same time, Wisconsin has been embarking on the most expensive highway infrastructure projects in state history (Marley and Held 2009, May 28). Completed in

2008, the Marquette Interchange reconstruction in downtown Milwaukee had formerly been the most expensive highway project in the state at approximately $810 million, but this will be surpassed by the planned $1.7 billion Zoo Interchange project and the $1.9 billion expansion of Interstate 94 from Milwaukee south to the Illinois state line (Held 2008, August 17; Marley 2012, November 22; Marley and Held 2009, May 28). The cost of just one of these two projects would have funded all of the alternative mobility projects mentioned above. Yet despite this, political controversies over such automobile projects have generally not focused on whether the projects were necessary, but whether they were being completed fast enough (Durhams 2010, March 27; Marley 2012, November 22; Marley and Held 2009, May 28).

In light of this overall rejection of multimodal projects and simultaneous historic expenditures on automobile infrastructure, one could argue that there has been a recommitment to the car in Wisconsin. The politically-fraught rupture in Wisconsin's transportation planning trajectory appears to have not only depended upon a concerted effort made by certain key stakeholders (such as the newly elected Republican politicians throughout the state, and particularly Governor Scott Walker), but also a shift in the way that mobility was thought about and valued among the general public in Wisconsin. This dissertation investigates this general trend based on an in-depth analysis of two of these contentious transportation projects in Wisconsin: Wisconsin HSR (Chapters Two and Three); and a bike path on Milwaukee's Hoan Bridge (Chapter Four). Before briefly introducing these three chapters, I first outline the theoretical and methodological framework upon which this research is based.

Literature Review and Conceptual Framework

To situate this dissertation research, I begin by briefly discussing transportation geography and the new mobilities paradigm of social sciences and humanities research, because it is at the intersection of these two bodies of scholarship that my research is grounded.

Transportation geography and the new mobilities paradigm

Transportation geography has the reputation of being a field mired in the positivist, quantitative approach of the 1960s (Goetz et al. 2009; Hanson 2003; Shaw and Hesse 2010; Shaw and Sidaway 2010). This reputation, however, is becoming increasingly inaccurate due to the integration of more qualitative and critical approaches in the past several years, on the one hand, and the recognition that a quantitative approach does not exclude the possibility of practicing critical geography, on the other hand (e.g. Cidell forthcoming; Christensen et al. 2011; Collin-Lange and Benediktsson 2011; Farber and Páez 2011; Goetz et al. 2009; Schwanen and Kwan 2012; Ziegler and Schwanen 2011). Yet, even with this shift in transportation geography toward more qualitative and critical approaches, much of the sub-field remains rooted within more quantitative and analytical approaches than the rest of human geography (Goetz et al. 2009). Consequently, transportation geographers have tended not to engage in the competing interests, beliefs, normative values and meanings of transportation (Goetz et al. 2009; Shaw and Hesse 2010), which must be explored in order to make sense of the contentious politics of transportation in Wisconsin.

Such an approach to researching transport is now increasingly possible due to the new mobilities paradigm in the social sciences and humanities (Prytherch 2012). Scholars

of the new mobilities paradigm have argued that social science scholarship (including human geography) has concerned itself primarily with place, the sedentary, and the static, leaving mobility ignored or viewed solely as a means to an end (Adey 2006; Cresswell 2010a; 2006a; Urry 2007). In other words, human geography has had "a fixation with fixity" (Shaw and Hesse 2010, p. 308), despite the fact that, as Cresswell (2006a) has argued, mobility is a "fundamental geographical facet of existence" (p. 1). Mobilities scholars have brought increased attention and awareness to qualitative and critical aspects of transportation, yet they have not done so by building off transportation geography so much as by approaching the topic of mobility laterally (Cresswell 2010a; Hannam et al. 2006; Sheller and Urry 2006).

Mobilities geographers view mobility as the dynamic, socially-produced component to movement, similar to the way that the concept of place is understood in relation to location in abstract space (Cresswell 2006a; Shaw and Hesse 2010). Mobility is taken to mean more than a simple ability to move through space between sites, which is a common understanding in transportation geography (Hanson 2004). Rather, this approach takes mobility to be "socially produced motion … understood through three relational moments" (Cresswell 2006a, pg. 3): first is the physical, tangible, observable, empirical fact of movement – the physical displacement between A and B; second is the representation of mobility, involving the values and meanings of mobility; and third is the practiced and embodied experience of mobility. Beyond recognizing each of these three as individual "moments," the interrelation of these must also be stressed. For instance, the act of practicing a form of mobility, such as urban cycling, involves the embodiment of a different subjectivity from that of someone who is walking or driving a car, and is

associated with particular types of representations, for example, as non-conformists who flout the rules of the road (Aldred 2010; Bonham and Cox 2010; Fincham 2006; Furness 2010). In other words, as Cresswell (2006a) has noted, "[m]obile people are never simply *people*" (p. 4, emphasis original), rather, they are pedestrians, cyclists, transit-riders, skateboarders, motorists, and so on.

While the scholars of the new mobilities paradigm have offered new mobile theories and mobile methodologies with which to explore all manner of movement in new ways (Büscher and Urry 2009; D'Andrea 2011; Myers 2011; Spiney 2011; Urry 2007; Vannini 2011; Vergunst 2011), the breadth of scope of this paradigm has meant that the empirical interest among mobilities scholars has not been primarily focused on transportation. In other words, there is a sense that while much of mobilities research is deeply empirical, some of it tends toward what "traditional" transportation geographers may view as overtheorized, focused on abstract and esoteric aspects of mobility, and less relevant for addressing pressing issues related to daily mobility patterns in a meaningful way (Shaw and Hesse 2010).

In sum, a traditionally-rooted transportation geography tends to lack the theoretical and methodological approaches to sufficiently address the competing interests, beliefs, normative values, and meanings mobility has for people, and how these impact specific struggles over transport. Meanwhile, mobilities scholars often lack an interest in specific transportation projects. However, rather than viewing transportation geography and the new mobilities paradigm as two irreconcilable approaches to the study of movement, there is in fact much more of a continuum between the quantitative, positivistic pole of transportation geography and the post-positivistic, purely qualitative

and socio-theoretical pole of the new mobilities paradigm (Shaw and Hesse 2010; Shaw and Sidaway 2010). Falling at the intersection of transportation geography and mobilities scholarship is a loose collection of work that deals with the politics of mobility, and it is at this juncture that significant progress can be made in understanding the politics of mobility in Wisconsin.

On the politics of mobility

Mobilities scholars have taken politics to be a central aspect of the new mobilities paradigm. Politics in this sense is not limited to partisan politics carried on by political parties in government. Rather, it refers to the broader understanding that movement involves social power relations, which are enacted differently and struggled over at different times and places, and between different things and people (Adey 2006; Cresswell 2010b). Under the broad notion of the politics of mobility, a wide range of issues has been explored. Cresswell (2006a) has used the concept in discussing various spatial practices, from those enacted between competing taxi drivers at the airport, to movement on the dance floor, to the racialized rescue responses of those stranded in New Orleans after Hurricane Katrina struck the city in 2004. Reeves (2011) has used a politics of mobility framework to look at gendered out-migration of males from eastern Uzbekistan, and the diverse experiences of women who are compelled to remain fixed to accommodate the mobility of men. Grace (2013) has discussed the politics of mobility of two African automobile drivers in colonial Tanzania, whose "transgressive practices of mobility" (p. 425) allowed them to create new forms of social and political action. As a final example, Dufty-Jones (2012) has applied the politics of mobility to housing studies, and argued that a new dimension of mobility as governmentality suggests itself to

problematize how relative (im)mobility "may be defined and used to generate certain governmental ends" (p. 220).

Ultimately, much of the work associated with a politics of mobility approach within mobilities literature could generally be viewed as irrelevant for scholars interested primarily in the pragmatic and policy-oriented aspects of transportation. However, there is a more limited (both conceptually and in the amount of scholarly attention devoted to it [Blickstein 2010]) notion of the politics of mobility. This more limited notion is one which is largely concerned with transportation, place-making, and the production of space, and which is perhaps most clearly exemplified by the work of Jason Henderson (2013a; 2011a; 2011b; 2009a; 2009b; 2006; 2004). This sense of the politics of mobility is one that fits at the intersection of mobilities and transportation geography studies, and is the sense of the term with which I am concerned in this dissertation.

From this perspective, the study of the politics of mobility has been succinctly defined by Henderson (2011a) as the "struggles over fundamental beliefs and normative values about what type of transportation is appropriate, who should decide transportation policy, and where movement should or should not occur" (p. 641). This is based in a recognition that even banal aspects of everyday mobility, such as the form given to concrete (Simons 2009), the radius of a street corner (Patton 2007), or local parking requirements (Henderson 2009b; Shoup 2011), are inscribed with values and meaning as they differentially facilitate or restrict various forms of mobility (Cresswell 2006a; 2006b; Henderson 2011b). Scholarly work along these lines has demonstrated how a politics of mobility framework produces significant insights into contentious transportation issues. For instance, Henderson (2011a) has explored two conflicting

situations at work in the U.S. South. On the one hand, the 2010 Deepwater Horizon oil spill in the Gulf of Mexico led to the relatively short-lived belief that the disaster posed a "consciousness shifting event" regarding U.S. dependence on oil (Al Gore, quoted in Henderson 2011a, p. 642). On the other hand, Southern politicians, especially from those states along the Gulf of Mexico whose coastal economies had been hit hardest by the oil spill, were vehemently opposed to any moratoriums on drilling for oil. Henderson found that despite the significant impact the oil spill had on the Gulf states' environment and economy, oil-dependent automobility undergirds the realization of a spatial vision of rural ideas, anti-urban sentiment, and conservative family values, allowing an important aspect of Southern identity to be practiced. Henderson's research demonstrates that identity and cultural practices are inextricably bound up with transportation.

As a further example, Weitz (2008) explored attempts in Tempe, Arizona, to expand an otherwise popular and uncontroversial mini-bus public transit service to include a route traveling through a predominantly white, middle-class neighborhood. As plans were announced, organized opposition quickly formed in the neighborhood, whose responses toward the project revealed particular beliefs among residents about public transit, such as: it would be used by and bring into the neighborhood undesired ethnic, economic and moral *others*; it would create a sense of urbanity that some residents rejected; and that the opposition saw risks associated with public transit, but did not compare these to risks associated cars, as "the latter are an unacknowledged but accepted baseline" (p. 169). Weitz's research underlines the fact that debates over transportation often reach beyond quantifiable economic and accessibility parameters into beliefs and normative values about how transportation and urban space ought to be.

Finally, Blickstein (2010) explores contradictory policies toward bicycling in New York City. The city has embarked on a historic path, making impressive strides toward encouraging cycling as a mode of transportation. However, in contrast to this, the police have cracked down on cyclists, generally "carrying out low-level harassment of 'ordinary' cyclists" (p. 886), but occasionally blatantly and capriciously disregarding their legal rights to be treated as a vehicle with equal rights to that of an automobile on city streets. Blickstein finds that despite the bicycle's suitability to New York City as a mode of transportation and the city's pro-cycling infrastructure and transportation policy reforms, policing and legal regulation remains at odds with the city's goals.

In this dissertation, I use this transportation-focused politics of mobility framework, located at the intersection of transportation geography and mobilities research, to investigate the two case studies. I understand the concept of the politics of mobility to refer to the inherently normative and value-laden struggles over how transportation and its spaces ought to be. As such, any outcome in the politics of mobility, whether it be a bike path on a bridge in place of an automobile lane, increasing passenger rail service and speed, or expanding highways, ultimately represents a hierarchization of transportation, with some mobile bodies being privileged over others. Examining the politics of mobility involved in contentious transportation projects, then, requires engaging with how competing interests, beliefs and normative values, and meanings about transportation and its spaces come to matter.

Methodology

Politics of mobility scholars employ a range of qualitative methods to parse out the various competing interests, beliefs, values, and meanings, and to analyze the role

that these played throughout the debates (Henderson 2013a; 2009b; 2006; 2004; Blickstein 2010; Parusel and McLaren 2010; Patton 2007; Weitz 2008). These scholars have typically used a combination of document analysis of media sources, activist materials, official project documents, and press releases (Furness 2007; Henderson 2011b; Hess 2009; Patton 2007; Prytherch 2012); participant observation in public meetings and activist events (Henderson 2011a; Parusel and McLaren 2010; Weitz 2008); and interviews with key stakeholders, such as politicians, bureaucrats, and activists (Blickstein 2010; Henderson 2006; 2004). In my research of these two case studies, I follow this general strategy by utilizing a number of qualitative methods, including: qualitative content analysis; discourse analysis; semi-structured interviewing and a focus group discussion; participant observation; and mobile methods. As each of the three chapters involved a unique combination of these methods, which is addressed in detail in each of the respective chapters, I only sketch out my research methodology broadly here. This research received approval from the Institutional Review Board at the University of Wisconsin-Milwaukee.

I conducted qualitative content analysis to analyze textual data, most notably including hundreds of articles from Wisconsin-based newspapers reporting on the projects. However, I also analyzed official project documents, press releases, and online comments posted to newspaper articles. I coded the documents inductively, which involves attempting to identify themes and patterns in the texts (Babbie 2007; Cloke et al. 2004; Cope 2010; Crang 2001). To assist in conducting the analysis, I used two qualitative data analysis software programs (MaxQDA and AntConc), which facilitated in identifying important themes within the texts, as well as in handling the large amount

of textual data (van Hoven 2003). In Chapter Three specifically, I build off of the qualitative content analysis conducted for Chapter Two, as well as other data, to conduct a discourse analysis of the debate over Wisconsin HSR. The purpose of the discourse analysis is to seek to determine how and why particular discourses are constructed and changed, and to propose novel and meaningful interpretations of the historical event or process in question (Howarth 2000).

I conducted a total of 23 in-depth, semi-structured qualitative interviews with key stakeholders, (e.g. politicians, planners, engineers, and key lobbyists and activists) in Wisconsin, Illinois and Minnesota. Semi-structured interviews entail an "ordered but flexible" (Dunn 2010, p. 110) approach to questioning, wherein the interviewer makes use of an interview guide so that specific topics are addressed, but where the conversation is not completely fixed, keeping open the possibility of discovering new insights from the interview participant. I also conducted one focus group for the research toward Chapter Four of this dissertation. The purpose of a focus group is to provide the researcher with some of the ways that groups make sense of the topic of interest in a dynamic format, and because of this, a focus group discussion can generate an overview of various perspectives on a topic relatively quickly (Cloke et a. 2004; Longhurst 2003). In this way, focus groups can also lead to surprising and unexpected findings that may have been missed by other methods (Bedford and Burgess 2001; Cameron 2010).

My research involved four main instances of participant observation, which is an important method for understanding the context of the research during its own time through direct personal experience (Kearns 2010). Participant observation allows the researcher to become more deeply involved in the particular topic of the research, and

allows for it to be experienced in its natural setting (Dowler 2001). The participant observation experiences used in this research ranged from the role of observer-as-participant, for example, by sitting in the audience of a public meeting on the Hoan Bridge project and taking notes, to that of participant-as-observer, for example, by passing out flyers at a rally for the HSR project, or by taking part in an advocacy bicycle ride for a Hoan Bridge bike path (Kearns 2010).

Mobilities scholars stress the need to develop and employ mobile methodologies alongside mobile theories, and a key part of implementing a mobile methodology is experiencing the mobilities in question and being mobile along with the research (Büscher and Urry 2009; D'Andrea 2011; Myers 2011; Spiney 2011; Urry 2007; Vannini 2011; Vergunst 2011). In other words, in order to fully engage with the debate over the mobilities in question, I needed to experience various mobilities myself, and reflect on how they stand in relation to each other. With respect to my research on the Hoan Bridge, this primarily involved bicycling throughout Milwaukee County on city streets and dedicated trails, while my research on Wisconsin HSR involved riding Amtrak passenger trains between Milwaukee and Chicago, and between Milwaukee and Minneapolis-St. Paul.

Using several different, complimentary methods helped to make sense of and guide the task of analysis and interpretation, while providing a set of data against which to compare, check, and corroborate my findings (Clifford and Valentine 2003). It also provided evidence of saturation in my data, or the point at which no new insights emerge from the data (Cameron 2010). Furthermore, having extensive knowledge of the research topic is important for recognizing silences in the research, which can be just as

meaningful as the more obvious and straightforward themes identified using this methodology (Rose 2001; Waitt 2010). Research on both of these contentious transportation projects required a different methodological emphasis, broadly based on the scale of the debates. The statewide nature of the HSR debate, which is the topic of Chapters Two and Three, suggested a greater emphasis on newspaper sources, official project plans, and press releases, among other documents, as these were important media through which the debate was carried out. The Hoan Bridge bike path debate, the topic of Chapter Four, was carried out primarily at the neighborhood and city scale, which suggested an emphasis on interviews with key stakeholders, and participation in local public and activist events.

The Two Case Studies

This dissertation is comprised of two case studies presented in three chapters. In Chapter Two, I identify two gaps in the transportation geography literature on HSR since its launch as a national initiative in 2009: first, the majority of scholars have avoided the issue of politics; and second, little attention has been given to the sub-national scale. I address these gaps by investigating the politics of Wisconsin HSR. Although the project had enjoyed a decade of bipartisan support, and had generally favorable starting conditions, HSR became one of the most divisive and passionately-debated issues in the state's 2010 gubernatorial election campaign. Even though the state risked having to repay up to $100 million to federal authorities if the project were to be stopped, newly-elected Republican leadership, along with a majority of Wisconsin voters, resisted the project (Sandler 2010, December 9). And, after HSR opponent Scott Walker was elected governor, federal authorities withdrew Wisconsin's funding. In this chapter, I investigate

how this rejection of Wisconsin HSR came to make sense despite favorable starting conditions and a history of bipartisan support for the project. I find that the manner in which the project was spatially reconceptualized as a Milwaukee-Madison high speed commuter train was of particular importance to the rejection of HSR in Wisconsin, and made the project appear to many Wisconsin voters as doomed to fail. Consequently, as the logic of the project as a whole was undermined, so too were the specific arguments for Wisconsin HSR, such as job creation, HSR's economic impact in Wisconsin, or environmental benefits. Meanwhile, the uncertainties of the debate overshadowed the risk of repayment entailed in stopping the project.

In Chapter Three, I address a gap in the scholarly debate within transportation geography on HSR, which has mostly overlooked the different meanings that HSR has for people in different regions of the country. Drawing on mobilities scholarship, and using poststructuralist discourse analysis as a method, I explore the discourses surrounding the politics of Wisconsin HSR. I find that conservatives identified their resistance to HSR not simply as a concern over its affordability, but that it meant taking a stand against excessive federal government spending and a perceived threat to the anti-urban status quo values. In contrast, progressives generally viewed HSR as symbolic of moving Wisconsin forward toward a utopian social vision of a more economically and environmentally sustainable future. This research highlights the importance of meaning in making sense of HSR's prospects for success, and it serves as a caution against overly rigid explanations of the politicization of HSR in the U.S.

In Chapter Four, I turn to my case study research on the struggle over a bike path for Milwaukee's Hoan Bridge. This chapter builds on a nascent discussion in the politics

of mobility literature on the role of the traffic engineering metric of level of service (LOS) in shaping mobility in the U.S. Despite local support for the inclusion of a bike path on the bridge, the Wisconsin Department of Transportation (WisDOT) excluded it, using LOS and cost to justify its decision. However, WisDOT's use and representation of LOS drew significant criticism from project advocates and even City of Milwaukee traffic engineers. I use a mix of qualitative methods to trace the debate over a bike path for the Hoan Bridge, and to investigate the question of how the ultimate decision against the Hoan Bridge bike path was legitimized and sustained in the face of considerable local support for the project. I argue that LOS as a tool of an ostensibly objective, value-free traffic engineering science helped to legitimize and sustain WisDOT's decision against the shared-use path, while simultaneously partially concealing an embedded bias toward automobility. This research demonstrates empirically how the very tools with which traffic engineers are able to measure and conceive of mobility can encourage certain forms of mobility and uses of space, while inhibiting others. It also demonstrates that rather than LOS simply presenting a straightforward bureaucratic hurdle to the proponents of multimodality, the representation and interpretation of these tools and their results can potentially be as political as the straightforward bias embedded in them.

In the final chapter of this dissertation, I summarize the findings of the three chapters. I then discuss the contributions these findings have for the literature, as well as some implications of this research for transportation professionals and policy makers. Lastly, I discuss the limitations of this research, and the possibilities for future inquiry that these suggest.

Chapter Two
End of the line: the politics of Wisconsin high-speed rail

In this chapter, I investigate the statewide politics of Wisconsin high-speed rail (HSR). After a decade of bipartisan support for a HSR line connecting Chicago and Milwaukee to Madison, with plans for an extension to Minneapolis-St. Paul, the project was awarded federal funds from the American Recovery and Reinvestment Act (or ARRA, also commonly known as the "stimulus") in early 2010. However, HSR became a serious point of contention in the 2010 gubernatorial election campaign, and, as it was increasingly politicized, HSR became increasingly unpopular. Then, on the eve of the November 2nd election, outgoing Governor Doyle signed contracts committing the state to spending the HSR funds, with the consequence being that, if the state would stop construction work on the project, it would have to repay federal authorities approximately $100 million for work already completed or in signed contracts, and eliminate the jobs to be created by the project (Sandler 2010, November 8; Schultze 2010, November 12). Despite this risk, the newly elected governor, Scott Walker, and a majority of Wisconsin voters supported halting the project, causing the federal authorities to withdraw Wisconsin's funding (Sandler 2010, December 9; WPRI 2010). In this chapter, I investigate how this rejection of HSR in Wisconsin came to make sense, despite substantial risks to the state in the form of job losses and repayment of committed HSR funds to federal authorities.

Situating Wisconsin in the National Vision for High-Speed Rail

Figure 1 – Obama Administration's Vision for High-Speed Rail (Source: White House 2009)

On April 16th, 2009, President Obama held a press conference to announce his administration's "Vision for High-Speed Rail in America" (White House 2009), which envisioned a national system centered on 10 HSR corridors (see figure 1). This announcement also formalized a call for applications for awards from the $8 billion in ARRA funding dedicated to HSR projects throughout the country. The announcement was initially met with support, evidenced by the applications for funding received by the Federal Railroad Administration (FRA) from 40 states that totaled over $100 billion (Albalate and Bel 2012; Goetz 2012a). And, on January 28th, 2010, the Obama Administration announced that 31 states and the District of Columbia would receive

awards (White House 2010b). Of these states, a smaller number captured the lion's share of the $8 billion: three states, California ($2.344 billion), Florida ($1.250 billion) and Illinois ($1.234 billion), received approximately 60% of the total funds, followed by Wisconsin ($823 million), Washington state ($590 million), North Carolina ($520 million), and Ohio ($400 million), which, combined, received approximately 30% of the total (author calculation, based on White House 2010b).

Figure 2 – White House Press Release Map of the Project (Source: White House 2010a)

Wisconsin received the fourth largest award, securing over $800 million in HSR funding to upgrade Amtrak's existing Chicago–Milwaukee Hiawatha passenger rail line, to extend this service from Milwaukee to Madison, and to plan the extension of service from Madison to Minneapolis-St. Paul, with an eventual increase in speed up to 110 miles per hour (mph) (White House 2010a; 2010b; 2009). The ultimate goal of this project was to make a significant step toward connecting Chicago and Minneapolis-St.

Paul via fast and frequent trains as a part of the Chicago Hub Network (see figures 1 and 2).

The Wisconsin project had been under consideration since the 1990s thanks to the efforts of former Republican Governor of Wisconsin Tommy Thompson, who was personally credited with the push for a Milwaukee-Madison HSR extension (McNally 2010, February 2; Sandler 2010, February 28). Governor Thompson was Chairman of Amtrak during his time as governor, and was awarded the National Association of Railroad Passenger's "Golden Spike Award" in 1999 for "[e]ncouraging bi-partisan support for nationwide intercity passenger rail" (NARP 2013). And, Wisconsin HSR enjoyed a slight majority of support from Wisconsin residents until the run-up to the gubernatorial election in 2010 (Public Policy Poll 2010; 2009). However, HSR became increasingly politicized in Wisconsin after the state received funding. Despite long-term planning and bipartisan support, as well as the threat of the state having to pay back up to $100 million in funds that had already been committed (Sandler 2010, November 8; Schultze 2010, November 12), on December 9th, 2010, the U.S. Department of Transportation (DOT) announced it was withdrawing the funds from Wisconsin due to the state's suspension of work and intention not to move forward on HSR (U.S. DOT 2010). This made Wisconsin, followed by Ohio and Florida, the first of three states to reject the HSR funds after successfully securing them (Leary 2011, May 9; U.S. DOT 2010). Because these states had received approximately 15% of the nation's total HSR funding, it was viewed as a significant blow to the President Obama's vision for HSR (Cooper 2010, December 9; Grundwald 2010, October 29; Jones 2010, November 23; Kastenbaum 2010, December 16; 2010 November 17).

While the cases of Wisconsin, Ohio and Florida are often generalized (e.g. Goetz 2012a; Minn 2012b; Perl 2012a; Ziolkowski 2012), Wisconsin was unique in a few significant ways. HSR in Wisconsin would have been an extension and upgrade of the popular Amtrak Hiawatha service (Weiland 2012, February 20; White House 2010a). The Hiawatha runs seven daily round-trips, connecting Milwaukee to Chicago in approximately 90 minutes. The route nearly doubled ridership through the 2000s, and is Amtrak's busiest route in the Midwest and sixth busiest route nationally (Amtrak 2014a; 2013; WisDOT 2014; 2013). In contrast, Amtrak service in Florida and especially in Ohio is limited to infrequent long-distance trains that operate at relatively slow speeds (Amtrak 2014b). Consequently, unlike Ohio and Florida, Wisconsin had greater experience with regional passenger rail service, which served as a foundation for the proposed HSR connection. Notwithstanding these potentially favorable starting conditions, Wisconsin was at the fore of the politicization of HSR, and of the three states to reject the HSR funds, Wisconsin was the first to halt work on its project (Perl 2012a; Sandler 2010, November 1).

Though the troubled development of HSR in the U.S. has attracted scholarly attention, the majority of this work has ignored the issues of politics and focused on the national scale while neglecting specific struggles over HSR implementation (Goetz 2012b; Goetz 2012c; Minn 2012b; Perl 2012a). Therefore, in this chapter, I trace the politics of mobility of the debate over Wisconsin HSR in a grounded, empirical approach. The conceptualization of transportation as a politics of mobility recognizes that struggles over such contentious transportation projects involve competing interests, beliefs and normative values about how transportation and its spaces ought to be, and are not simply

a dispassionate public discussion of the quantifiable advantages and disadvantages of HSR (Cresswell 2010a; 2010b; 2006 Henderson 2013a; 2011b). I intend to not only provide insights into why HSR was rejected, but also to make clear that examining the actual politics of HSR at the scales at which they are materialized (or indeed, not materialized) contributes important insights that could be missed by narrower, mostly quantitative studies of HSR at the national scale.

In the next section, I discuss the scholarly literature on recent attempts at HSR implementation in the U.S., identifying two main gaps. I then present my research question, and the conceptual framework I use to address it, followed by a discussion of my methodology. I then offer a detailed timeline of the politicization of HSR in Wisconsin, followed by the results of this research. Lastly, I discuss how the rejection of Wisconsin HSR came to make sense, and the implications this case study has for the scholarly literature on HSR in the U.S. since 2010, as well as the implications these results have for the conceptual framework of politics of mobility.

Scholarly Perspectives on HSR in the United States

The announcement in 2009 of ARRA funding dedicated to laying the groundwork for a HSR network in the U.S., followed by a troubled implementation exemplified by the cases of Wisconsin, Ohio, and Florida, has sparked renewed debate among transportation geographers about the place of HSR in the U.S. (Albalate and Bel 2012; Becker and George 2011; Goetz 2012a; Tierney 2012a; Minn 2012a; 2012b; Perl 2012a; Ziolkowski 2012a). Perhaps most prominent have been a special section of brief "viewpoint" articles in the *Journal of Transport Geography* (Goetz 2012c) along with an associated panel session on HSR at the annual meeting of the Association of American Geographers

(AAG) in 2012 (Goetz 2012b). The debate has focused on the quantifiable, technical and financial feasibilities of HSR in the U.S., and there is consensus on only a few fundamental points.

Even though there is no universally-accepted definition of "high-speed," there is general consensus among transportation geographers that the majority of what was announced in 2010 under the national HSR initiative is not *truly* high-speed relative to scholarly and international industry standards (Johnson 2012; Lane 2012a; Levinson 2012; Goetz 2012b; Perl 2012a; Tierney 2012a; UIC 2013). In the European Union, for instance, the standard for high-speed on newly-constructed corridors is above 155 mph, and at least 125 mph on upgraded sections (UIC 2013). China, which has been rapidly expanding HSR in recent years, also defines HSR as a minimum top speed of 125 mph (Chen and Zhang 2010; Goetz 2012a). However, lower thresholds for determining high-speed have been designated for use in the U.S. by the Federal Railroad Administration (FRA), which has defined four categories of passenger rail (FRA 2009, p. 2): "HSR – Express," which reaches speeds of at least 150 mph; "HSR – Regional," which travels between 110 – 150 mph; "Emerging HSR," which travels between 90 – 110 mph; and 'Conventional Rail," which has top travel speeds between 79 and 90 mph.

Among the 2010 HSR awards, only two state's projects, California and Florida, were to be true HSR with top speeds above 150 mph in the short-term (Johnson 2012; Perl 2012a; White House 2010b). The remaining 2010 awards, including Wisconsin's, went to funding projects with top speeds of 110 mph for the short and medium-term (White House 2010b). This is a significant improvement on current service in many places. However, as Minn (2012b, p. 186) has succinctly put it: "Far from being a

technological leap into the future, American HSR efforts in most areas simply offer to restore passenger rail service to the levels of the mid-20th century." Indeed, as early as the late 1930s, the "Twin Cities 400" train reached a maximum speed of 112 mph, making the approximately 400 mile trip between Chicago and St. Paul in approximately 400 minutes, or about 75 minutes faster than current Amtrak service (Amtrak 2014; Scribbins 2008). In this research, I use the term HSR to refer to the Wisconsin project because it was defined under the FRA standards as such, and because it was the language used in Wisconsin. However, I recognize that Wisconsin HSR more accurately represented an extension and upgrade of conventional passenger rail service and not *true* HSR according to conventions in the scholarly literature and international industry standards.

A further general consensus in the literature is that there is an approximate medium-range preferred travel distance for HSR, which encompasses journeys that are "too long to drive, but too short to fly" (Johnson 2012, p. 295). This range is cited variously as 100-600 miles (Lane 2012a; Tanaka and Monji 2010); 125-500 miles, (Goetz 2012a), 200-500 miles (Chen and Zhang 2010), or 200-800 miles (Tierney 2012a). In the case of Wisconsin HSR, the FRA (2009) recognizes this as 100-600 miles. Scholars also generally agree that building a HSR network in the U.S. will be very expensive, and that most corridors, if not all, will require government subsidy to operate (Button 2012; Lane 2012a; Levinson 2012; Ryder 2012a; Tierney 2012a; Goetz 2012a). However, there is significant disagreement as to whether this would be a wise use of resources. Finally, a general concern has been expressed over the role freight rail will play in the development of passenger HSR (Goetz 2012b; Lane 2012a; Ryder 2012a; Ziolkowski 2012a; 2012b). This is especially important in the U.S., as the freight rail

network is far more expansive and significant for the country's economy relative to other industrialized countries (Ziolkowski 2012a).

Beyond these general points of agreement, there has been a lack of consensus as to whether a national HSR network will be beneficial to the U.S. The economic feasibility and impact of HSR has been a key theme within the literature (Goetz 2012a), but scholars' perspectives diverge significantly. Tierney (2012a; 2012b) views HSR as a cornerstone of the next economic growth-wave in the U.S., as he believes it will help to encourage innovation, particularly in the knowledge economy. Tierney (2012a) stresses that HSR must involve investment from the private sector and avoid excessive public sector involvement "lest it become another drain on the treasury like Amtrak" (p. 286), and that HSR corridors should be planned based solely on economic feasibility and impact. Johnson (2012) similarly views HSR as a potential economic boon, arguing that the national initiative is on the right track regarding its plans of having transit-oriented development at station stops. Ryder (2012a; 2012b) is more pessimistic toward the potential of HSR in the U.S. than Tierney (2012a; 2012b), and Johnson (2012). However, he notes that because there are expected to be 100 million more people in the U.S. by 2050, HSR could change the future development pattern of the U.S. by encouraging a reurbanization around nodal points in the HSR network (Ryder 2012a, p. 305). Levinson (2012) argues that while the potential economic benefits of HSR would offer the best argument for pursuing a HSR network, they are difficult to predict in their magnitude. While not stating an explicit position, he argues that HSR will be a long-term initiative, and increasing efficiencies in automobile and air travel could erode some of the

advantages of HSR. Consequently, his appraisal of U.S. HSR is not particularly optimistic.

Even less optimistic is Button (2012), who, like Tierney (2012a), is critical of Amtrak in particular, and of passenger rail systems in general that operate at an economic loss. However, he diverges significantly from Tierney (2012a) in his perspective of HSR as an economically-viable mode of transportation. A core point of his argument is that only two HSR corridors globally, both with optimal conditions, have been able to cover their full costs: the Paris-Lyon service of the French TGV and the Tokyo-Osaka *Shinkansen*. However, as Button argues, such conditions "hardly exist in the US" (p. 302). Consequently, while he bases his argument solely on the economic feasibility of HSR as do Tierney (2012a) and Johnson (2012), he views HSR in the U.S. more as an economic burden than the cornerstone of the next economic-growth wave. Rather troublesome about Button's (2012) argument, though, is the obvious double-standard in asserting that HSR and existing Amtrak service should cover their entire costs with user-generated revenue, while not making the same demand of automobile and air transportation. In fact, he argues that "subsidies to air and road transportation are … relatively small and largely directed at services that are provided for social reasons" (p. 301), which is difficult to align with the fact that federal investment in passenger rail over the previous half-century has been minuscule compared to automobile and air transportation (Amtrak 2012; FRA 2009; Perl 2012a; Ziolkowski 2012a).

On the issue of environmental sustainability and energy-independence, Lane (2012a) views HSR as a transportation mode that can address some of the major problems of automobile-dependence (such as congestion and environmental degradation),

while also providing a more productive use of travel time for passengers. Tierney (2012b) argues that HSR can help to solve urban, economic, and energy-related problems because it encourages compact urban development, thus ameliorating unsustainability issues associated with automobile-dependence and urban sprawl, and facilitating agglomeration economies in cities which are eroded by the fragmented spaces of contemporary U.S. automobility. And, because HSR runs on electricity, it will provide a "natural hedge" against petroleum-dependence in the U.S. (Tierney 2012b, n.p.) However, Tierney (2012a, p. 286) also suggests that "[i]n a world without a price on carbon or ecosystem services" arguments for HSR along the lines of global climate change and resource scarcity are not very compelling.

Givoni and Banister (2012) take a fundamentally different approach to evaluating HSR. They take as a first-order priority the need to shift to an environmentally-sustainable transportation paradigm, and view the viability of HSR as being related to whether it can be environmentally-benign, and replace automobile and air travel. Thus, HSR's role within the larger passenger rail network must be carefully considered, and it should not lead to an erosion of conventional passenger rail service. From this perspective, they view speed as a secondary factor compared to issues such as "journey reliability, comfort, security and safety and service frequency" (p. 307). Givoni and Banister's (2012) view of the importance of speed contrast starkly with Johnson's (2012, p. 295), who criticizes the national HSR plan for "proposing a barely upgraded system [of passenger rail] that … will continue to feature sluggish trains" which fail to compete with air and automobile travel. Likewise, Levinson (2012) critiques the national plan for predominantly focusing on what amount to "short term improvements" (p. 291) to bring

passenger rail in the U.S. up to speeds around 90 to 100 mph, rather than striving to make HSR speeds competitive with those of other transportation modes.

Less has been said about the network as a whole, but there is no consensus here either. Levinson (2012) criticizes the proposed HSR network in the U.S. as not being "well-thought out" (p. 288). He argues that the plan is comprised of a range of individual proposals drawn onto a single map with little consideration of the efficiency of the national network. He further critiques the plan by arguing that "even the same agencies have random maps" (p. 290). However, as two of the maps he presents are advocates' visions of a national HSR network, and the remaining two clearly were created for different purposes, this particular critique seems somewhat unwarranted. Meanwhile, Lane (2012a; 2012b) offers a more favorable assessment of the planned network, and the potential of HSR in the U.S., than most of these other scholars. He describes a possible type of national HSR service in the U.S. that is closer to what is actually being proposed (see figure 1), which he views as a more realistic scenario for the country: a system of HSR regions that predominantly function to connect groups of cities within their respective regions (helping to reduce short-haul flights and highway congestion), while also having some rail connection to their neighboring regions.

Overall, even while these recent contributions "provide a diverse range of perspectives regarding [HSR]" (Goetz 2012a, p. 220), no consensus has been reached in the scholarly debate on the national vision for HSR. And ultimately, part of the problem is that scholars have different standards of viability. For Tierney (2012a), viability involves HSR's impact on the national economy, and while social, cultural, and environmental factors may be important, these should remain "secondary units of

analysis" (p. 286) compared to economic variables. For Givoni and Banister (2012), viability involves whether HSR contributes to a shift to an environmentally-sustainable transportation paradigm. And for Button (2012), HSR should not only be economically self-sustaining, but absolutely must show a clear return on investment to be considered viable. However, because the parameters of viability deviate considerably, much of the debate has effectively involved staking normative claims on whether HSR is a wise path for the U.S. to pursue (Perl 2012b). Indeed, scholars' opinions range from generally optimistic and supportive (Lane 2012a; Johnson 2012; Tierney 2012a), to generally cautious and skeptical (Levinson 2012; Ryder 2012a), to generally opposed (Button 2012). These perspectives have neither helped to make sense of the struggle over HSR in the U.S. since 2010, nor have they offered policy-makers and the general public straightforward or consistent answers as to what is to be done about HSR. Consequently, perhaps the greatest benefit of the scholarly debate has been to stimulate more research on HSR in the U.S.

One significant aspect that has received relatively little attention is the politics of HSR. This is especially noteworthy considering that it was the politics of HSR in the U.S. that sparked this renewed scholarly debate over HSR. Goetz's (2012a) introduction to the special section of the *Journal of Transport Geography* on HSR begins by discussing HSR as a subject of contemporary debate and controversy. He describes the national vision for HSR as one that was initially supported, but met with "substantial political backlash," (p. 219), eventually being cancelled by incoming governors in Wisconsin, Ohio and Florida who refused federal HSR funds. Despite framing the politics of HSR as a context for their contributions, most of the scholars either do not discuss them (e.g. Button 2012; Johnson

2012; Tierney 2012a), or they have made superficial references to the politics of HSR, such as: "[t]he Florida network … has been canceled by the Governor, though in transportation, nothing is permanently dead" (Levinson 2012, p. 289); and "high-speed rail in the US is not without controversy [and the proposed investment in it] has been lambasted by lawmakers at various levels of government" (Lane 2012a; p. 282); or that the Wisconsin, Ohio and Florida governors' rejection of HSR funding was due to their fear that "HSR will not be profitable" (Ziolkowski 2012a, p. 293).

However, significant exceptions to this are Minn (2012a) and Perl (2012a), both of whom call for research on the politics of HSR in the U.S. In an attempt to learn from the past, Minn (2012a) has compared experiences of a HSR conference in 1967 to one in 2012. He finds that one of the most significant changes since 1967 is that politicians have become increasingly important while academics have disappeared from the contemporary debate over HSR. This leads him to conclude that U.S. HSR "might be more richly analyzed from a political perspective than from purely technical, economic or spatial viewpoints" (Minn 2012a, p. 298). Similarly, Perl (2012b, n.p.) has argued that "because it's politics that put the goal of having a high-speed rail network … onto the nation's transport agenda, and it's politics that has emerged as the main variable in trying to implement that [goal]," scholarly research on the politics of HSR should be prioritized over contributions that stake normative claims based on quantifiable variables.

Elsewhere, Minn (2012b) has addressed the political economy of HSR in the U.S. from the 1960s until today. While admitting that a political economy approach is "totalizing" (p. 188), he suggests that political-economic contradictions help to explain the simultaneous failure of HSR to be realized to any significant degree in the U.S., while

the decades-old dream of it is nonetheless kept alive. In particular, Minn suggests that the suburban sprawl/highway model of U.S. urban development has reached a point of physical and economic limitation that threatens to induce a crisis of capitalism, and that HSR is a potential spatial and mobility fix to overcome this barrier. However, this perspective conflicts with the entrenched, socially-reproduced values of suburban American life which create "political structures that are often hostile to a rail-based solution" (p. 196) to this potential crisis. In the case of Wisconsin, Ohio, and Florida, he briefly suggests that these suburban-based social values were at play, noting that the three conservative Republican governors cancelled projects that were supported by their Democratic and moderate Republican predecessors. However, Minn's argument only glosses over these individual cases of HSR implementation, and it leaves the question unanswered as to why federally-funded HSR/passenger rail expansion became so deeply politicized in Wisconsin and Ohio and not, for instance, in historically conservative North Carolina and Virginia, or in a state considered to be one of the most conservative in the country, Oklahoma, all three of which have accepted federal funding for passenger rail expansion (FRA 2014; Newport 2013, February 1; Rhodan 2013, July 30; Saad 2013, January 30).

Perl (2012a) offers insights into the reemergence of passenger rail in United States' transportation policy using public policy theory. President Obama's role in pushing for a revitalized national passenger rail network is highlighted and explored as more of a politically-determined goal than one driven from an immediate and obvious need. Perl argues that the mismatch between the political power to implement goals and the capacity (i.e. the manufacturing, engineering and operating skills) to achieve them is

what drives political conflict over HSR's implementation in the U.S. According to Perl, the lack of capacity for implementing true HSR in the U.S. partly involves the "Buy American" requirement of the national vision for HSR. This requires the HSR network be built with U.S. technology and know-how, which Perl (2012a) likens to Bangladesh setting a goal of building a national space program, but using only Bangladeshi technology and know-how to do so. Perl cites the experiences of Wisconsin, Ohio and Florida as examples of the political conflict created through this mismatch of resources.

This explanation regarding the mismatch between the political power to implement goals and the capacity to make them happen does not scale down well to Wisconsin for two reasons. In terms of operational capacity, because Wisconsin HSR was not true HSR according to scholarly and international industry standards, but could more accurately be described as an improved conventional passenger rail service, it more closely matched the operational experience of both Amtrak and the Wisconsin Department of Transportation (WisDOT) (FRA 2009 Johnson 2012; Minn 2012b; UIC 2013). Top speeds on the Wisconsin HSR line from Chicago to Madison would have been 79 mph initially, and would have been raised to 110 mph with the expansion of service to Minneapolis-St. Paul (Held and Daykin 2010, January 28; White House 2010a); these speeds are well within Amtrak's operational experience. Current top speeds on the Chicago-Milwaukee Hiawatha line, as well as most other Amtrak lines, are 79 mph. Moreover, Amtrak has been operating the Acela Express service in the Northeast Corridor since 2000, a higher-speed service which very briefly reaches maximum speeds up to 150 mph, but otherwise has a top speed of 135 mph (Amtrak 2013). Finally, in terms of the manufacturing capacity required for puzzling through to achieve the goal, the

Spanish rail carriage manufacturing company Talgo opened a manufacturing facility in Milwaukee to build the state's trains, meaning that the necessary manufacturing knowledge was successfully secured for Wisconsin HSR. Consequently, this aspect of Perl's (2012a) argument does not satisfactorily explain the politicization of Wisconsin HSR.

However, Perl (2012a) also briefly argues that HSR began to appear in some cases more as an expansion of Amtrak than the implementation of true HSR, so "well known and high profile skeptics of Amtrak succeeded in criticising the President's policy as offering nothing more than 'old wine in new bottles'" (p. 281). Elsewhere, Perl (2012b) suggests that in cases such as Wisconsin, Amtrak was viewed and portrayed as a "loser" in the eyes of HSR opponents (Perl 2012b). However, a more than cursory engagement with Wisconsin suggests that Amtrak's service in Wisconsin was not a significant point of contention. As this research will show, Amtrak was not a significant theme in the debate in Wisconsin. Indeed, HSR's most significant opponent in Wisconsin, Scott Walker, never spoke out against Amtrak. On the contrary, he affirmed his support for Wisconsin's subsidy of the existing Amtrak Hiawatha service between Milwaukee and Chicago, and even suggested an openness toward using Wisconsin's HSR award to improve both the Hiawatha line and long-distance Empire Builder line from Chicago via Milwaukee and Minneapolis-St. Paul to the Pacific Northwest (Sandler and Johnson 2010, November 15).

Both Minn (2012a; 2012b) and Perl (2012a) offer important approaches to investigating recent developments in HSR in the U.S. However, these scholars' work involved exploring HSR from a long-term, national perspective. This points to a second

general gap in the literature. Much like the recent scholarly debate as a whole, any attention that the individual cases receive, such as that of Wisconsin HSR, appear as both spatially and temporally more a footnote than a matter of great substance. In a comparative labor geography study, Holifield and Zupan (2013) argue that the debate over Wisconsin HSR was a "multi-scalar political struggle" (p. 14) that involved stakeholders from the national, state and local scales. However, thus far, little research has been done within transportation geography on the struggles over HSR implementation at the sub-national scale (e.g., the state, region, or municipality), and entirely lacking is a case study of a single U.S. state's implementation of HSR. The state is an especially important stakeholder for U.S. transportation matters, as the state departments of transportation were the recipients of the HSR awards, and were responsible for developing the projects (White House 2010c). Because experiences have varied widely from state to state, with some states rejecting the federal HSR funds and others accepting them, this near-exclusive focus on the national scale appears insufficient to make sense of the politicized character of HSR in the U.S.

Research Question and Conceptual Framework

In light of the call for research on the politics of HSR, as well as the lack of attention to sub-national scales, I investigate the following research question: how did the rejection of Wisconsin HSR come to make sense despite favorable starting conditions and a history of bipartisan support for the project?

I address this research question using a conceptual framework of the politics of mobility, which recognizes contentious transportation projects as struggles that involve competing interests, beliefs, and normative values about how transportation and its

spaces ought to be (Blickstein 2010; Cresswell 2010a; 2010b; 2006 Henderson 2013a; 2011b; Prytherch 2012). For example, some individuals or groups may view a project such as Wisconsin HSR as fitting into a vision of an environmentally-sustainable, efficient, multimodal transportation system in which people can live car-free, yet move swiftly between vibrant urban places. Others may view HSR as out of place in (or even as a threat to) a vision of low-density suburban sprawl as the embodiment of the American dream, a vision which depends upon unencumbered automobile transportation and well-funded automobile infrastructure for its fulfillment. Ultimately, such struggles involve more than simple disputes over a single project, but also how that particular project fits into people's visions of mobility, or the normative spatial visions of how transportation ought to be, and how space ought to be arranged for it. (Henderson 2013a; 2011b; 2006). A politics of mobility approach thus takes such qualitative aspects of transportation seriously when attempting to make sense of contentious transportation projects.

Methodology

Politics of mobility research has traditionally relied on a range of qualitative methods to make sense of the competing interests, beliefs, and normative values involved in contentious transportation projects (Blickstein 2010; Henderson 2013a; Parusel and McLaren 2010; Patton 2007; Prytherch 2012; Prytherch and Daly 2014; Weitz 2008). However, such research has primarily involved struggles over mobility in cities, and consequently tends to involve a limited number of key stakeholders and events (such as public meetings, rallies, or demonstrations). Therefore, city-based politics of mobility research often relies on interviews, participant observation, and document analysis as primary methods (Henderson 2011a; 2006; Parusel and McLaren 2010; Weitz 2008).

Statewide issues of politics of mobility are rarer, though Prytherch and Daly (2014; Prytherch 2012) have used document analysis of the Ohio Traffic Code to examine the social justice implications that legal frameworks in the state of Ohio have in constructing pedestrians in ways that often deny them the right-of-way in the street. Wisconsin HSR, debated to varying degrees throughout the state, was one in which the news media served as a crucial platform. Consequently, I address this debate primarily based on a qualitative textual analysis of Wisconsin newspaper reporting, which I complement with a range of qualitative methods in order to produce a narrative of the politicization of HSR and to identify the key themes and silences of the politics of Wisconsin HSR. This research received approval from the Institutional Review Board of the University of Wisconsin-Milwaukee.

I began with a preliminary analysis of Wisconsin's largest newspaper, the *Milwaukee Journal Sentinel,* as well as the Madison-based newspapers the *Wisconsin State Journal* and the *Capital Times.* I performed a search of the newspapers' online archives using the phrases "high-speed rail" and "high speed rail" for the year 2010, collecting 120 texts published in the newspapers, including general reporting, editorials, opinion columns, letters to the editors, and shorter, often anonymous "sound-off" pieces submitted to the newspapers by readers. I sorted these chronologically in a single Office word document, and then read and took notes on each text to familiarize myself with the timeline of the debate and to sketch out core themes. In addition to the word document, I used an Excel spreadsheet to facilitate data sorting; perform counts; and record reference data, the number of online comments posted to articles, and my personal notes for each text.

In the main phase of data collection, I expanded the timeframe of my search to January 1st, 2009, as plans for a national HSR network were beginning to be announced, until January 10th, 2011, approximately one month after the HSR funds were withdrawn, continuing the same process of data collection as in the preliminary phase. I also expanded my search to additional Wisconsin newspapers throughout the state to capture both a range of political and regional perspectives. For those newspapers that had accessible digital online archives, I copied the texts directly into the word document and spreadsheet in the same manner as in the preliminary phase. Otherwise, I used the Wisconsin Newspaper Associated Digital Research Site to access digitized versions (in pdf format) of print newspapers. The process of preparing these for analysis was substantially more time-intensive than for the online newspaper archives, as each text had to be carefully formatted and manually edited for inclusion in the word document and spreadsheet. I collected texts from one newspaper at a time, finally settling upon 11 total newspapers for inclusion in the analysis after I had found the saturation point of the data, or the point at which no new insights were emerging from the material I was collecting (Cameron 2010). This process resulted in a final count of 501 texts (see figure 3).
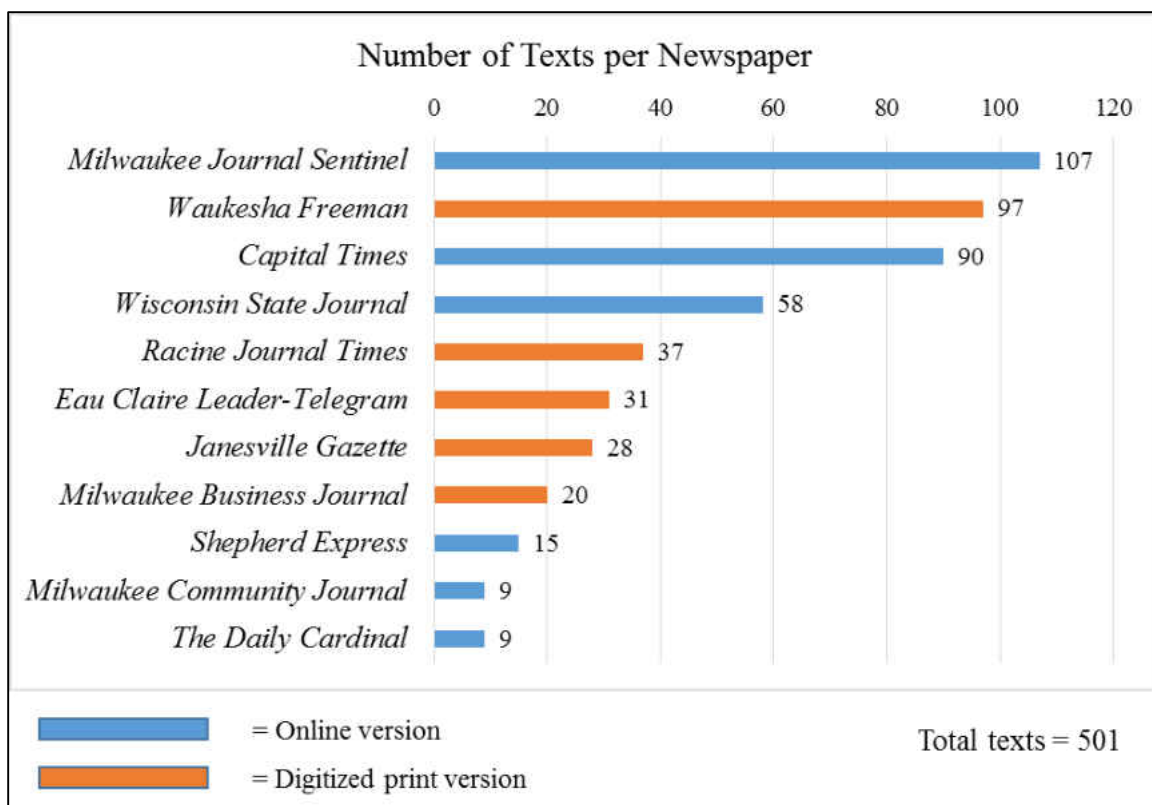
Number of Texts per Newspaper

Newspaper	Number of Texts
Milwaukee Journal Sentinel	107
Waukesha Freeman	97
Capital Times	90
Wisconsin State Journal	58
Racine Journal Times	37
Eau Claire Leader-Telegram	31
Janesville Gazette	28
Milwaukee Business Journal	20
Shepherd Express	15
Milwaukee Community Journal	9
The Daily Cardinal	9

= Online version
= Digitized print version

Total texts = 501

Figure 3 – Number of texts per newspaper included in the analysis

I used two qualitative data analysis software programs to perform the analysis. Such software programs facilitate the process of handling large amounts of data, and assist in identifying relationships within the body of text (van Hoven 2003). I used MaxQDA to code the body of text inductively, which allows key themes in the text to emerge, rather than imposing pre-defined themes on the text (Babbie 2007; Cope 2010). I also used MaxQDA to perform more complicated counts of particular words and phrases, such as determining how often variations of "Milwaukee to Madison" (e.g., Milwaukee-to-Madison, Madison-Milwaukee, Milwaukee to Madison, etc.) were stated throughout the text. I used AntConc to complement the analysis done in MaxQDA. AntConc allowed me to perform more complex lexical searches, such as searching the text for one word or phrase stated within close proximity to another. For example, it allowed me to search for

how often "Chicago" appears in close proximity to "Madison" throughout the text, and displayed the context within which these words appeared. AntConc also provided visual tools to help me make sense of how the usage of particular words and phrases in the debate changed over time.

In addition, I used other secondary data to add depth and richness of perspectives to the research; to compare, check, and corroborate findings from the textual analysis (Clifford and Valentine 2003); and to provide evidence of saturation in my data. Further, because being attentive to silences requires an in-depth engagement with the broader social context of the debate (Rose 2001; Waitt 2010), the insights gained through these methods were crucial for identifying significant silences in the body of text. I used official project documents and press releases (AASHTO 2010; Amtrak 2014a; 2013; FRA 2014; 2009; U.S. DOT 2010; White House 2009; 2010a; 2010b; 2010c; WisDOT 2013; 2011) as a source against which to check and corroborate claims made in newspaper reporting. I used polling data (Public Policy Forum 2010a; 2010b; 2009; St. Norbert College/Wisconsin Public Radio 2010; WPRI 2010) to identify attitudes among the general public toward HSR and how these changed over the course of the debate, and I juxtaposed this with the sentiments expressed by journalists and politicians within newspaper reporting. Video material (Friends of Scott Walker 2010; People for Rebecca 2010; WISN Milwaukee 2010) was important as a reference to identify significant themes in the debate, as television campaign advertisements in particular are carefully constructed, tested, easily identifiable, and targeted arguments (Freedman et al. 2004). Finally, I used online comments posted to articles in the *Milwaukee Journal Sentinel* (the only newspaper in this analysis which had a significant amount of comments, and

allowed comments to be posted throughout the entire period of debate) as a proxy for the intensity of the debate in general public.

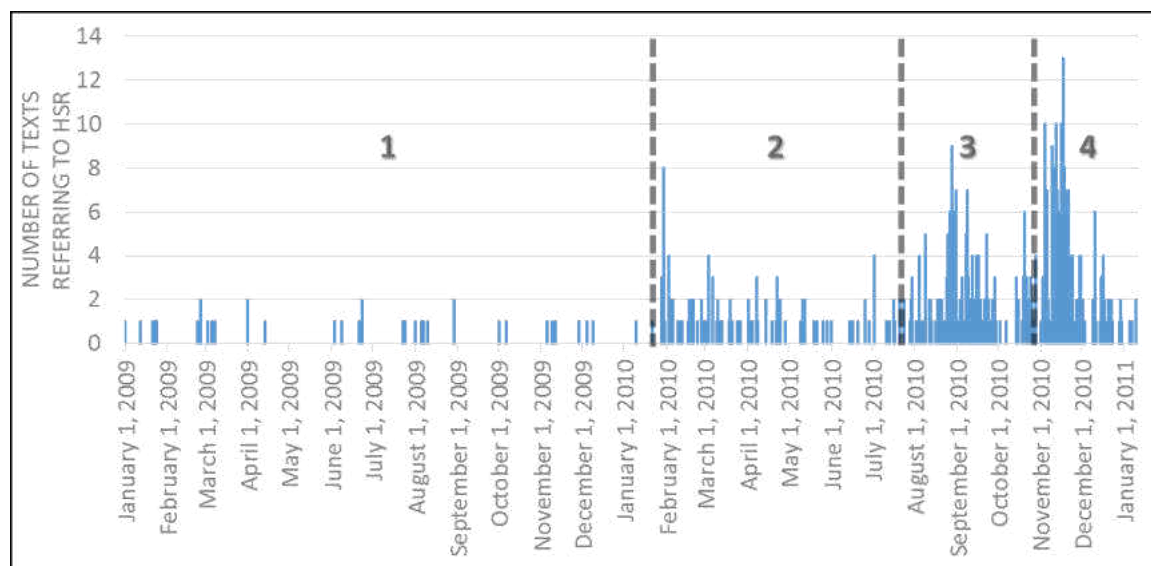**A Timeline of the Politicization of Wisconsin HSR**

Figure 4 – Newspaper texts referring to HSR and periods of the debate (Source: author, analysis of 11 Wisconsin newspapers)

In this section, I offer a detailed narrative account of the politicization of HSR in Wisconsin from early 2009 until after the funds were revoked by the federal authorities in late 2010. I have organized the narrative around four periods based both on significant events in the debate, as well as spikes in newspaper reporting (see figure 4). This section provides the necessary context to understand the findings of this research, which are then presented in the following section.

Period 1: General support for HSR before the funding decision

Throughout 2009, the year leading up to the Wisconsin project being chosen for funding, HSR was not an issue that drew a great deal of attention (see figure 4). When it was reported on, it did not typically appear particularly partisan. Initial reporting discussed Wisconsin HSR in terms of a regional network of high-speed trains with a

decade-long history as an overall vision for the region (Haynes 2009, February 25; *Milwaukee Journal Sentinel* 2009, March 7; Sandler 2009, February 24; Schmid 2009, February 25). The goal described in newspaper reporting during this period was to expand service from Milwaukee to Madison as a step toward linking Chicago and Minneapolis-St. Paul via faster and more frequent trains (Gores 2009, January 12; Pitsch 2009, January 1; Rumage 2009, January 22; Sandler 2009, February 24; Williams 2009, January 21). Consequently, there was a sense that the project was both part of a greater network and of interest to various stakeholders throughout the larger region.

HSR in Wisconsin was not a new issue. Former Republican Governor of Wisconsin, Tommy Thompson, who served as Chairman of Amtrak during his governorship, is generally credited for the initial push for HSR in Wisconsin in the late 1990s (Hands 2010, August 30; McNally 2010, February 2; Nichols 2010, November 14; Sandler 2010, November 25; 2010, August 26). However, because funding was always lacking, the project never broke ground. With the prospects of federal ARRA funding on the horizon in 2009, Democratic Governor Doyle and WisDOT began the application process to fund Wisconsin's HSR plans, and investigated the possibility of bringing rail carriage manufacturing to the state (Pitsch 2009, January 1). After meeting with other governors and President Obama at the White House, Governor Doyle went to Spain in February 2009 to meet with rail carriage manufacturer Talgo, and to experience Spain's HSR service firsthand (Gilbert 2009, February 23). So, despite a history of HSR not being strictly partisan in the state, already by this point a number of commentators associated HSR with Democrats in Wisconsin due to Governor Doyle's efforts (Gores

2009, January 12; Sandler 2009, February 24; 2009, March 2; Williams 2009, January 21).

Democrats and political progressives viewed HSR as a major economic development opportunity and job-creation project (Gores 2009, January 12), a tool for congestion mitigation (Zweifel 2009, August 10), and as an efficient, convenient, environmentally-friendly and modern mode of transportation (Gilbert 2009, February 23; *Milwaukee Journal Sentinel* 2009, March 5; Piotrowski 2009, March 31; Schmid 2009, February 25). Most of the reporting on HSR during this period tended to have either an uncritical or an excited tone (Franzen 2009, June 23; Gores 2009, January 12; Kane 2009, March 7; *Milwaukee Journal Sentinel* 2009, March 5; 2009; Rumage 2009, January 22; Pitsch 2009, January 1; Zweifel 2009, August 10). However, some skepticism toward HSR was expressed in 2009 (*Milwaukee Journal Sentinel* 2009, March 5; *Waukesha Freeman* 2009, January 24; Sandler 2009, June 8). In March, Wisconsin Republicans were reported to have "slam[med] Doyle on high-speed rail" (Sandler 2009, March 2), criticizing the governor for pursuing HSR for the state. Republicans and political conservatives viewed passenger rail as an obsolete mode of transportation (Held and Daykin 2010, January 28). Further, they argued that HSR would cost a "vast sum" (McIlheran 2009, August 29) of money to build and maintain, and would be a service that most Americans would not use, particularly when gasoline prices are low (*Waukesha Freeman* 2009, January 24).

Period 2: As Wisconsin's award is announced, HSR becomes increasingly politicized
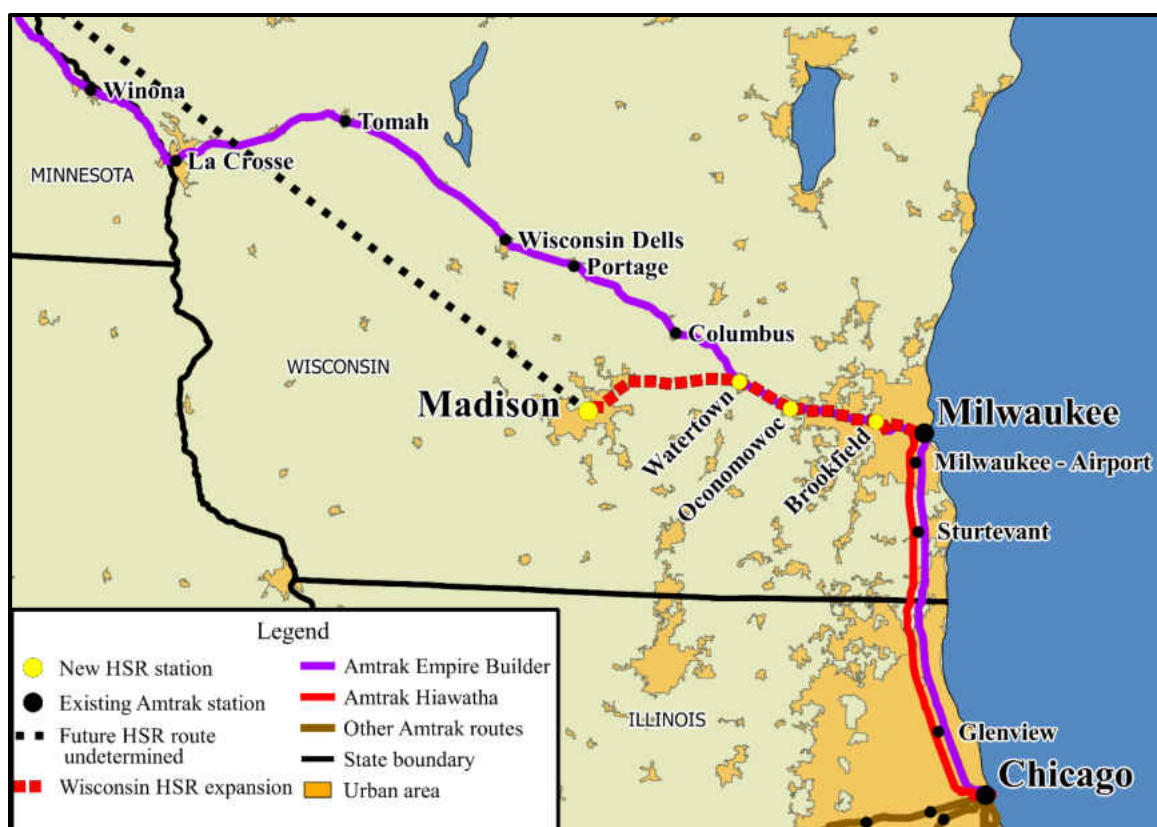
Figure 5 – Proposed Wisconsin HSR and Existing Passenger Rail Service (Source: author)

On January 28th, 2010, the Wisconsin HSR proposal was awarded a total of $823 million, of which WisDOT received $822 million, and the Minnesota Department of Transportation received $1 million (White House 2010a; 2010c). Of the $822 million awarded to WisDOT, $12 million was for upgrading existing Chicago–Milwaukee Hiawatha service to higher speeds, $810 million was to extend this higher speed service from Milwaukee to Madison via intermediate stops in Brookfield, Oconomowoc, and Watertown, and the remaining $1 million was for planning the extension of the line from Madison to Minneapolis-St. Paul (see figure 5). So, although the White House (2010a)

press release included Minnesota, Wisconsin and Illinois within the project, the distribution of funding meant that the responsibility fell on Wisconsin to carry out this major stage of the project.

This announcement brought a spike in attention for the issue (see figure 4 above), with partisan lines once again being drawn and deepened. On one side, Wisconsin Democrats including Governor Doyle, Madison Mayor Dave Cieslewicz, Milwaukee Mayor and gubernatorial candidate Tom Barrett, and other stakeholders such as Milwaukee aldermen and union leaders expressed their excitement about the prospect of future HSR in Wisconsin (Held 2010, January 28; Held and Daykin 2010, January 28; *Janesville Gazette* 2010, January 29; Petrie 2010, January 29; Stein 2010, January 29). On the other side, Wisconsin Republicans declared their opposition to HSR as an example of wasteful government spending on a technology of the past that would do little to help create jobs or ease the burden on Wisconsin taxpayers (Held and Daykin 2010, January 28; McIlheran 2010, March 3; McNally 2010, February 2; Petrie 2010, January 29; Stein 2010, January 29). Aside from the initial investment of federal funds in HSR, Republicans particularly objected to the increased state subsidy of passenger rail between Milwaukee and Madison, which was then estimated at $7.5 million based on projected ridership figures (Schultze 2010, February 11). By March 6th, 2010 (just over a month after the announcement), the two anticipated gubernatorial candidates wrote commentaries on HSR in the *Milwaukee Journal Sentinel*, both closely following partisan lines. Republican Scott Walker (2010, March 6) issued a warning against the "hidden costs" of federal ARRA spending on HSR, and argued that funding should instead be

spent on roads. Democrat Tom Barrett (2010, March 6) focused on the potential of HSR to create jobs and encourage Midwestern economic connectedness.

As HSR began to appear as an impending reality, it was debated differently throughout the state, inflected by local concerns. In the western Wisconsin cities of La Crosse and Eau Claire, discussions sprang up in newspaper reporting around which of the two cities would have a stop on the future expansion of HSR from Madison to Minneapolis-St. Paul (Vetter 2010, January 29; Mial 2010, February 4; Rogers 2010, February 9). In Brookfield, local politicians and residents expressed concerns as to how much of that city's station costs would be covered by the HSR grant, and how much the city would have to pay in construction costs (Fraley 2010, August 25; McIlheran 2010, October 2; Ponto 2010, March 10; Davis 2010, March 19). In Oconomowoc, despite some skepticism toward the virtues of HSR expressed by the editorial board of the local newspaper (*Waukesha Freeman* 2009, January 24), the city government had been "very proactive" (Petrie 2010, January 29, p. 6A) in preparing for the arrival of HSR by having approved station plans a year prior to the HSR award announcement. Further, a certain degree of hope was expressed in local newspaper reporting that Oconomowoc would receive a quiet zone as part of the project, which would eliminate the frequent train whistles which city residents considered a nuisance (Franzen 2009, June 23; Williams 2009, June 21).

In Madison, while local political support for HSR was strong, potentially negative impacts on the walking and bicycle paths connecting neighborhoods, on the one hand, and on traffic congestion, on the other, colored the issue for some residents (Abramson, 2010, March 3; Czubkowski 2010, April 21; 2010, September 23; Schneider 2010,

February 26). More significantly for the statewide debate, though, the proposed location of Madison's station on the city's periphery at the Dane County Regional Airport rather than downtown was criticized by supporters and opponents alike in editorials and letters to the editors of Wisconsin newspapers (Held and Daykin 2010, January 28; Ivey 2009, August 1; Luecke 2010, May 11; Murphy 2010, April 24; Schultze 2010, February 11). It took until May of 2010 for WisDOT officials to change the proposed Madison station to a downtown location (*Capital Times* 2010, April 28).

HSR was steadily debated by politicians and within the media over the course of the spring and into the summer of 2010, and public support for the project began to wane as it started to appear more problematic. Public support for HSR dropped slightly from 54% in September 2009 to 51.5% by March of 2010, but with the increasing politicization of HSR, public support for HSR dropped significantly to 43% by June 2010 (Public Policy Forum 2010b). Compared to what was to come, though, debate about HSR during this period was still relatively limited (figure 4).

Period 3: LaHood proclamation and Oconomowoc decision fuel intensified debate

Public support for the project was slipping, and Republican gubernatorial hopefuls Scott Walker and Mark Neumann vowed to stop HSR if elected (Hess 2010, June 25; Rovito 2010, June 25; Sandler 2010, July 29). As the debate over HSR in Wisconsin began to intensify, the Secretary of the U.S. DOT, Ray LaHood, visited Wisconsin to release the first substantial portion of HSR funds to the state ($46.5 million, having previously released $5.7 million for environmental impact assessments), and to rally support behind the HSR project (DeFour 2010, July 29; *Janesville Gazette* 2010,

July 30). On July 29th, 2010, at a meeting with Governor Doyle, Secretary LaHood announced to the press that: "High-speed rail is coming to Wisconsin. There's no stopping it" (see e.g. WISN Milwaukee 2010). Far from discouraging HSR's opponents, this statement helped to solidify HSR as a significant political issue.

Scott Walker quickly responded to Secretary LaHood's statement by launching a "NoTrain.com" website and associated advertisement campaign (Sandler 2010, August 18). His response identified Secretary LaHood's proclamation as a challenge. Scott Walker explicitly addressed President Obama, Governor Doyle, Secretary LaHood and Democratic gubernatorial challenger and Milwaukee Mayor Barrett, stating that it is "outrageous [that this] administration can force Wisconsin to continue building a train it doesn't want and cannot afford" (Walker 2010). He stated he would rather see the funds spent on Wisconsin's "crumbling roads and bridges" (Friends of Scott Walker 2010). Significantly, this use of the funds was not a possibility according to the terms of the HSR grant (U.S. DOT 2010). Nevertheless, it was repeated frequently throughout the campaign (e.g. Hackett 2010, September 9; McBride 2010, November 13; Sandler and Johnson 2010, November 15; Tollefson 2010, September 3; *Wisconsin State Journal* 2010, November 4).

A few weeks later, on August 17th, 2010, WisDOT announced that the Oconomowoc station would be removed from the project. While Oconomowoc Mayor Jim Daley had expressed concerns to WisDOT regarding HSR ridership and the use of city funds to build the HSR station (Rumage 2010, August 20; Sandler and Johnson 2010, August 18), city officials had made no definitive statement opposing a station. WisDOT, however, claimed that "[d]ue to the lack of interest by the city" WisDOT would be

"discontinuing further discussions on a planned station in Oconomowoc" (Sandler and Johnson 2010, August 18). This decision came as a surprise, and was criticized by a number of conservative columnists as punishment for Oconomowoc officials who had been asking too many questions about the project, consequently making WisDOT and Governor Doyle appear capricious and vindictive (Belling 2010, August 25; Fraley 2010, August 25; *Milwaukee Business Journal* 2010; August 27; McBride 2010, August 21; Rumage 2010, August 20). Meanwhile, aside from one letter to the editor in the *Waukesha Freeman* (Sable 2010, August 26) which placed the blame for Oconomowoc's loss of HSR on Mayor Daley and other local politicians, no Democrats or other HSR proponents defended WisDOT's unexpected decision in the local newspapers.

Following the Oconomowoc decision, four communities, Wauwatosa, Hartland, Waterloo, and Sun Prairie, expressed interest to WisDOT about serving as a replacement for the Oconomowoc stop. WisDOT, however, was "not looking to add stations" (Cari Anne Renlund, WisDOT official, quoted in Sandler 2010, August 26). Meanwhile, Mayor Steve Ponto of Brookfield, having already been "treading cautiously" (Ryan 2010, August 27, p. A37) with WisDOT over making a commitment to HSR, began taking an increasingly firm stance against committing the city to a HSR station until WisDOT could provide specific cost and ridership figures (Belling 2010, August 25; DeFour 2010, August 29; McIlheran 2010, October 2; Petrie 2010, September 18). Within less than two weeks of the Oconomowoc decision, Brookfield Mayor Ponto made clear that he "would oppose spending city of Brookfield tax dollars on the improvements, the station and the parking lot [but that the] ultimate decision [was up to the city council] " (quoted in DeFour 2010, August 29). Why the Brookfield station was retained when officials had

been even more assertive in critically questioning WisDOT about the project compared to Oconomowoc officials, was an issue that the mayors of both cities themselves discussed, yet "neither could figure out a difference between their cities that would explain why Oconomowoc was nixed and Brookfield [remained] an option" (DeFour 2010, August 29).

In response to Brookfield's increasingly unfavorable stance toward HSR (Fraley 2010, August 25; Ryan 2010, August 27), WisDOT officials emphasized that the project could continue without any intermediate stops between Milwaukee and Madison, and that "[u]ltimately Brookfield has to say they want a station" (DeFour 2010, August 29). But, with just over a month until the gubernatorial election, Mayor Ponto delayed a city council vote on a Brookfield HSR station pending the results of the election (Rumage 2010, September 28). Even as WisDOT entered into discussions with other communities along the route regarding the possibility of a new station, a stalemate had been reached over a Brookfield station in the lead up to the election (Petrie 2010, October 23; Sandler 2010, September 21).

Period 4: Walker elected governor, Doyle makes puzzling moves, HSR supporters miss opportunities, U.S. DOT revokes Wisconsin's funding

On the eve of the November 2nd election, in a publicly unannounced, closed-door meeting with state and federal officials, Governor Doyle signed contracts committing the state of Wisconsin to spend the rest of the HSR funds (Sandler 2010, November 1). While officials from WisDOT justified the meeting by stating that the weekend had been the only time officials could meet, this move was part of the original plan, and it would have been announced, the meeting was immediately controversial (*Janesville Gazette*

November 3, 2010; *Milwaukee Journal Sentinel* 2010, November 2; Sandler 2010, November 1; *Wisconsin State Journal* 2010, November 2). Scott Walker, who had been leading in the polls in the final weeks prior to the election (Janesville Gazette 2010, October 19; Marley 2010, October 18), called the signing of the contracts: "just raw political power at its worst. This is why the Doyle administration is corrupt and unwilling to listen to taxpayers" (Scott Walker quoted in Sandler 2010, November 1). Much like in the case of the Oconomowoc decision, it was difficult for HSR supporters to back Governor Doyle's move. Even Democratic candidate Tom Barrett, facing election the next day, agreed that Governor Doyle's meeting with the DOT to commit the state to HSR should have been made public, even though he continued to support the project (*Milwaukee Journal Sentinel* 2010, November 2; *Wisconsin State Journal* 2010, November 2).

On November 2nd, 2010, Scott Walker received 52% of the vote, and became the next governor of Wisconsin, with Tom Barrett receiving 46% (GAB 2010). The election outcome heightened tensions over the fate of the project. On the one hand, HSR seemed to have been locked in by Governor Doyle on election-eve. On the other hand, Governor-elect Walker reiterated his commitment to halting the project (Walker 2010, November 3; *Wisconsin State Journal* 2010, November 2). Two days after the election and three days after Governor Doyle's contractual commitment, another major surprise came when outgoing Governor Doyle issued a request to halt all work on the project, justifying his decision by stating that the future of the project should be determined by the Governor-elect (Bauer and Foley 2010, November 5; Sandler and Stein 2010, November 4). However, Governor Doyle also warned that cancelling the project would mean that

Wisconsin would be required to repay the approximately $100 million for work already completed or in signed contracts, and that it would eliminate the jobs associated with the project (Sandler 2010, November 8; Schultze 2010, November 12).

Journalists' reactions to the halt of the project varied. The editorial board of the *Wisconsin State Journal* (2010, November 2) interpreted this "puzzling" move by Governor Doyle as "[feeling] more like a political stunt intended to make Walker look bad than a rational decision"; a similar argument was made by other *Wisconsin State Journal* journalists (Barbour and Spicuzza 2010, November 5). In contrast, the editorial board of the *Racine Journal Times* (2010, November 7) interpreted outgoing Governor Doyle's decision to halt work on HSR as a "less-than-gentle nudge from federal officials … that they didn't want to get into a prolonged dispute with Gov.-elect Scott Walker who vowed to voters that he would kill the $810 million project" (p. 2C). Overall, though, most of the attention in local newspaper reporting remained focused on whether or not HSR should be pursued. And, during the post-election period, the debate reached its most intense level yet. Not only did newspaper coverage of HSR spike during this period (see figure 4), but the issue was also debated heavily among the general public. Illustrative of this intensification among the general public was the dramatic increase in online comments to *Milwaukee Journal Sentinel* articles covering HSR (see figure 6 below).
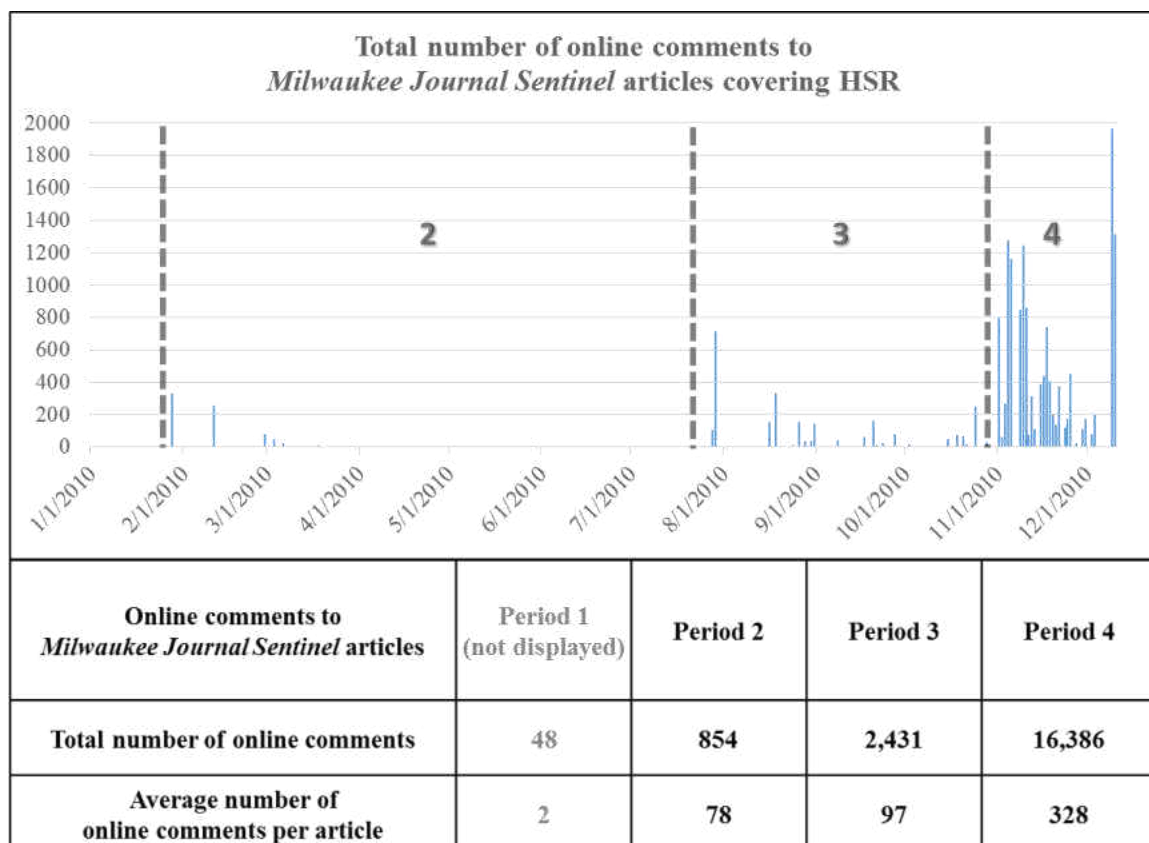
Figure 6 – Total number of online comments posted to Milwaukee Journal Sentinel articles about HSR (Source: author, based on count of online comments to articles included in the analysis)

An issue that had the potential to further complicate the debate became known immediately after election day. First reported on November 1st (Sandler 2010), WisDOT officials stated that they hoped that federal funds would cover 90% of the HSR service's operating costs, as was already the case for the existing Milwaukee–Chicago Hiawatha service. This meant that, of the projected $7.5 million additional state HSR subsidy for the Milwaukee-Madison segment, state taxpayers might only pay $750,000. While this was reported several times throughout November by the *Milwaukee Journal Sentinel* (2010, November 5; McIlheran 2010, November 13; Sandler and Johnson 2010, November 15; Sandler and Stein 2010, November 4; 2010, November 12; Stein and Held 2010, November 5), it received limited attention in all other newspapers analyzed in this

study (*Janesville Gazette* 2010, November 3; McNally 2010, November 16). Consequently, outside of *Milwaukee Journal Sentinel* reporting, it was largely missed, having been overshadowed by the controversy over outgoing Governor Doyle's contract signing and subsequent halting of work on the project, as well as Governor-elect Walker's election success.

In the weeks after the election, numerous editorials and commentaries appeared in local newspapers, most of which followed the established lines of argumentation (Belling 2010, November 17; *Eau Claire Leader-Telegram* 2010, November 17; *Milwaukee Community Journal* 2010, November 11; Murray and Scribner 2010, November 18; *Shepard Express* 2010, November 17; Zepnick 2010, November 16; Zweifel 2010; November 17). Notably, the editorial boards of Wisconsin's two largest newspapers, both of which had endorsed Governor-elect Walker during the campaign season, called upon the Governor-elect to reconsider his position on HSR (*Milwaukee Journal Sentinel* 2010, November 13; 2010, November 5; *Wisconsin State Journal* 2010, November 4). The *Wisconsin State Journal* (2010, November 4), noted that they had endorsed Scott Walker "despite his disingenuous position that federal rail money could be used for roads and bridges instead"… and that they were disappointed that the first hires under Governor-elect Walker would be local attorneys who would help him put an end to the rail line linking Chicago and Minneapolis. The *Milwaukee Journal Sentinel* (2010, November 13) argued that while Governor-elect Walker believed he was fighting to protect taxpayer money from being wasted, that he was instead wasting an "opportunity for jobs, for economic growth, for a modern balanced transportation system."

Even as outgoing Governor Doyle was unwilling to take further action on HSR, a loose coalition of Wisconsin Democrats, labor unions, and other rail supporters held rallies at various locations throughout the state, including candlelight vigils near the Talgo manufacturing facility in Milwaukee's 30th Street Corridor, to rally behind the project so that the funds and associated jobs would stay in Wisconsin rather than be redirected to another state (Holifield and Zupan 2013; Johnson 2010, November 15; *Milwaukee Community Journal* 2010, November 16; Ramde 2010, November 16). By this time, those supporting restarting work on the project were facing an uphill battle, as statewide polling in November suggested that only 35% of Wisconsin residents supported the HSR project, with 52% opposed (WPRI 2010). Moreover, Governor-elect Walker reiterated his commitment to stopping the project, and repeated his request to federal authorities to allow the funds to be redirected to Wisconsin's roads, despite the fact that this was not possible according to the terms of the HSR funding (Barbour and Spicuzza 2010, November 9; Sandler and Gilbert 2010, November 16). Meanwhile, other Wisconsin Republican congressional politicians (U.S. congressmen Jim Sensenbrenner, Tom Petri and Paul Ryan) introduced a bill to Congress that would allow states to return HSR funds to be used to pay against the federal deficit and debt (Sandler and Gilbert 2010, November 16). These moves signaled a hardline Republican resistance to accepting the HSR funds.

Another issue that could have impacted the debate came on December 3rd, 2010, when the *Milwaukee Journal Sentinel* (Sandler 2010, December 3) reported that the ridership figures had not been adjusted since May of 2010, when the proposed Madison station had been moved from the airport to downtown (Speight 2010, May 12). Due to

the increase in ticket revenue, these new, higher ridership projections would reduce the state's estimated subsidy from the original $7.5 million to $4.7 million (Sandler 2010, December 3). However, after this initial report, the reduced subsidy receives mention in the articles analyzed in this study only after U.S. DOT Secretary LaHood announced on December 9th, 2010, that Wisconsin's HSR funding would be revoked and redistributed to other states' HSR projects (Sandler 2010, December 10; 2010, December 9).

The news that Wisconsin's HSR funds were being withdrawn was met with a sense of victory by rail opponents that Wisconsin would no longer be obligated to subsidizing HSR between Milwaukee and Madison (Petrie 2010, December 10; Sandler 2010, December 9), but that it was unfortunate that the funds would "be wasted on high-speed boondoggles in other states" (Steve Nass, quoted in Sandler 2010, December 9). However, in contrast, outgoing Governor Doyle called the loss of HSR funds and associated jobs a "tragic moment for the state of Wisconsin" (quoted in Sandler 2010, December 9). Madison Mayor Dave Cieslewicz stated that it was: "a black day for Wisconsin's economy … [we] can only imagine what else he'll do to turn back the clock on progress" (*Janesville Gazette 2010,* December 10). Milwaukee Mayor Tom Barrett offered his "congratulations to the workers in California and Florida … [who would be having] a merry Christmas" (quoted in Sandler 2010, December 9) unlike the workers in Wisconsin.

Spatial Reconceptualization of Wisconsin HSR

The key finding of the qualitative content analysis is that people's understanding of the spatial arrangement of the project, and the flows that it was meant to facilitate, shifted throughout the debate, eventually diverging significantly from the parameters of

the project as defined by official project plans (see figures 1 and 2). I call this the spatial conceptualization of the project, which refers not to the normative spatial visions of how people think mobility and space ought to be, but instead to their ontic status, or simply to how they envision mobility and space are going to be.

The initial press release (White House 2010a) defined the project spatially as an upgrade of Chicago-Milwaukee service and an expansion of this service from Milwaukee to Madison as a part of the greater "Minneapolis/St. Paul–Madison–Milwaukee–Chicago" corridor, "eventually [allowing passengers] to travel from Chicago to the Twin Cities at a top speed of 110 mph." Further, the White House press release described this corridor as an "an essential segment of the Midwest rail system." Some of the early reporting on the project did place it spatially within both a Midwestern network of HSR and a Chicago to Minneapolis-St. Paul HSR corridor (Haynes 2009, February 25; *Milwaukee Journal Sentinel* 2009, March 7; Schmid 2009, February 25). For instance, in early 2009, then-Governor Doyle was quoted at length, saying:

> Imagine a high-speed train from Chicago to Milwaukee to Madison to the Twin Cities [of Minneapolis-St. Paul], with a spur that goes to Green Bay, and that connects up with other major population centers in the Midwest. We've sat around and talked about this for decades. But now we may well have the opportunity, somewhat depending on how this federal legislation is structured, to be able to make that kind of big-time investment, … If you could get from the Twin Cities to Chicago in equal the time it takes you to go to the airports and fight through everything and you can end up in downtown Twin Cities or downtown Chicago and it's on a good, new high-speed comfortable train, then I think you're going to see a lot of demand for it - particularly as it comes through Madison and Milwaukee. (quoted in Gores 2009, January 12).

However, the spatial conceptualization of the project shifted to a HSR line carrying commuters between Milwaukee and Madison. Figures 7 and 8 illustrate how the project was predominantly portrayed as a Milwaukee-Madison project throughout much

of the debate. Figure 7 represents the total count of mentions in the body of literature analyzed in this study of the spatiality of the project (including variations, such as: Milwaukee-Madison, Milwaukee-to-Madison, Madison-Milwaukee, etc.), and demonstrates that the project was predominantly discussed as a Milwaukee-Madison project. Conversely, references to a Chicago-Madison connection were rare.
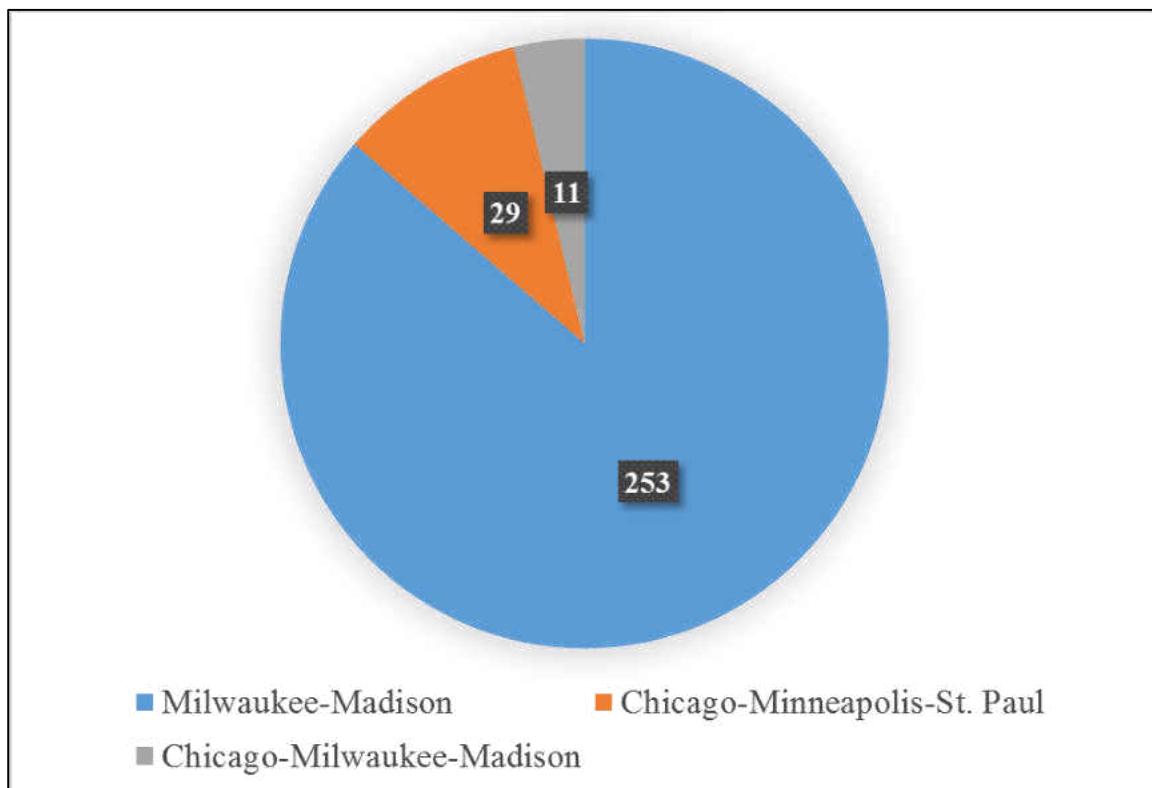
Figure 7 – Combined mentions of project route in body of text

Figure 8 shows a similar finding, but also helps to illustrate how this spatial conceptualization of the project shifted early on in the debate: the cost figures of $823 million for the entire project, the $822 million WisDOT received, and the $12 million to upgrade existing service between Milwaukee and Chicago were significantly overshadowed by the $810 million for the Milwaukee–Madison segment in the body of literature, especially after very early reporting on the project.

Figure 8 – Visualization of references in chronological order through the body of text

References to the project as a Milwaukee-Madison project were common throughout the debate from various sources, and from opponents and supporters alike. For instance, a *Milwau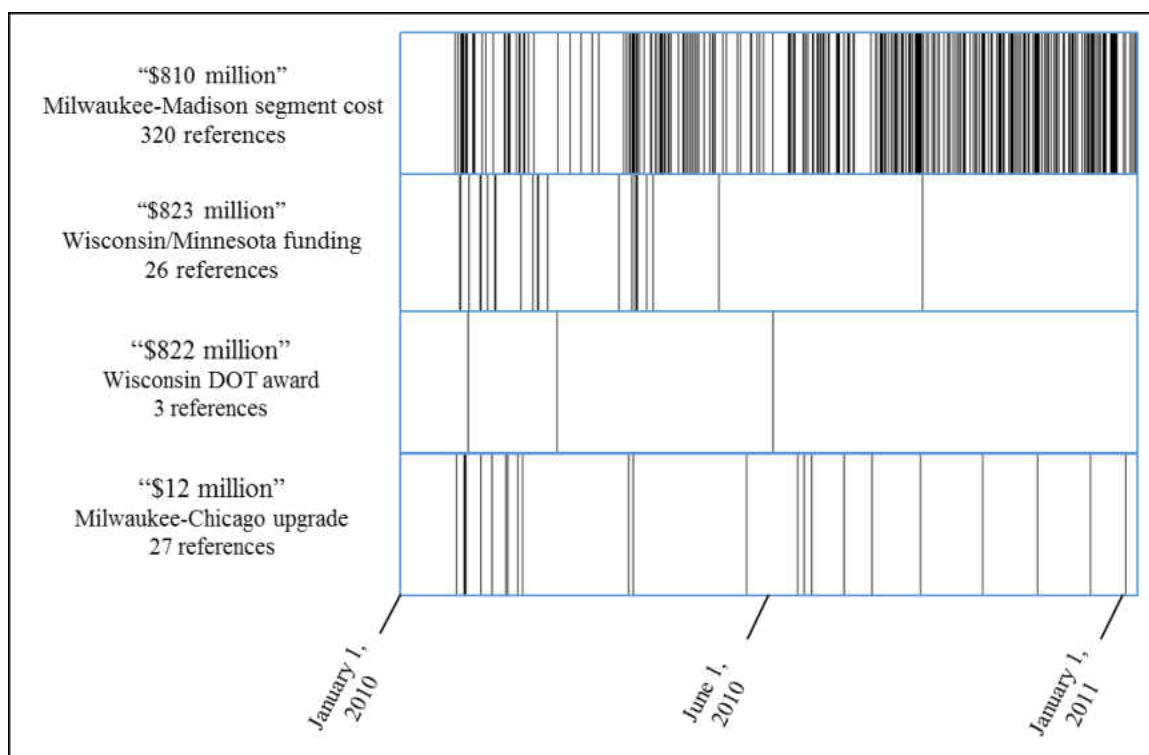kee Journal Sentinel* (2009, March 5) editorial discussed the "high speed rail route linking Milwaukee and Madison [as holding] high promise for improved transportation and economic development in Wisconsin." Or, in a *Capital Times* commentary (Murphy 2010, 19 August), the author contrasted the lack of "outrage over $1 billion-plus for widening [Interstate] 39-90 … to Walker's pledge to return the $810 million that the Obama administration has pledged to create high-speed rail service between Milwaukee and Madison." But in these examples there were no mentions of future plans for a Midwestern network, or of ultimately connecting Chicago and Minneapolis-St. Paul with HSR service. Even statewide opinion polls used this limited

notion of the project in surveying the public. One poll asked Wisconsin respondents the following:

> The Wisconsin Department of Transportation received $810 million dollars from the federal economic stimulus package to build a high-speed rail service between Milwaukee and Madison. Would you say that you strongly support this project, somewhat support, somewhat oppose or strongly oppose the high-speed rail project? (St. Norbert College/Wisconsin Public Radio 2010, p.6)

> Similarly, another poll asked:

> …as you may have heard, there has recently been debate about whether the state of Wisconsin should go forward with the Madison to Milwuakee [sic] passenger rail project. Do you support or oppose the Madison to Milwaukee passenger rail project? (WPRI 2010, p. 7)

Not only was the spatial conceptualization of what the project was meant to be in the future truncated, but its existing relationship with Chicago was likewise spatially limited. That is, although the service would have been an extension and upgrade of the existing Milwaukee–Chicago Hiawatha service to Madison, the link to Chicago (the third largest city and the fourth busiest passenger rail hub in the U.S. [Amtrak 2013]), was often conspicuously absent from the discussions of the project (see also figures 7 and 8). Where references to Chicago were made, they often underline the notion of a separate line or route, as the following excerpt from a letter to the editor of the Madison-based *Capital Times* illustrates:

> …high-speed rail [from Madison] to Milwaukee and then to Chicago would entail a transfer and delays. A current bus to Chicago's rail station or airport [from Madison] makes it in four hours for $24 per person. What will the train fare and the travel time be in comparison? (Risop 2010, March 1, emphasis added)

This truncated spatial conceptualization of the project and the erasure of Chicago are similarly reflected in discussions of ticket costs throughout the debate. Nowhere throughout the body of text analyzed are ticket fares between Chicago and Madison

specifically discussed. Instead, specific references to the cost of travel between Milwaukee and Madison were made. For instance, the project was described as a "line [that] would run from downtown Milwaukee to Madison with stops in Brookfield, Watertown and Oconomowoc [and that tickets] for the trip, which is expected to take about 75 minutes, are estimated to cost as much as $33 one way" (Bauer 2010, February 17, p. 5A). In a letter to the editor of the *Waukesha Freeman* (Esslinger 2010, February 19)*,* an opponent of HSR rhetorically asked: "would I pay as much as $66 to ride a "high-speed" train from Milwaukee to Madison that travels no faster than the current speed limit for Amtrak (79 mph) and takes 75 minutes to reach Madison? NO!!!" (p. 8A). Elsewhere, HSR opponent Bill Richardson was paraphrased as arguing that "it would be cheaper for a family to drive from Madison to Milwaukee than to take the high-speed train [since round-trip fares] are expected to range from $40 to $66, somewhat comparable to the round-trip [Milwaukee-Chicago] Hiawatha fare of $44" (Held and Daykin 2010, January 28). Here again, the comparison to existing Milwaukee-Chicago Hiawatha service presents the project as separate from this service rather than as an expansion of it.

Amtrak and Passenger Rail as Separate from HSR

Along with the erasure of Chicago and the view that existing service was separate from the proposed HSR service, neither passenger rail in general nor Amtrak as an operator of passenger rail were viewed as especially controversial or significant matters of concern throughout the debate. On the contrary, when Amtrak was mentioned, it was mostly spoken of in unproblematic terms, and the general sentiment regarding the Hiawatha line in particular ranged from relatively uncontroversial to outspoken support.

Most prominently, Governor Scott Walker supported continued state subsidy for the Hiawatha line, and also expressed a desire to use federal funds to improve passenger rail in the state. For instance, after he was elected and in the heat of the debate, newspaper reporting noted Governor-elect Walker "[had] backed continued state support for [Amtrak's Milwaukee-to-Chicago Hiawatha] (Sandler and Johnson 2010, November 15). The same article reported statements Governor-elect Walker made in an interview: while he preferred to redirect the HSR funds to Wisconsin's roads, he was open to looking at using the funds for the state's existing Amtrak's Milwaukee-to-Chicago Hiawatha service and the long-distance Empire Builder service. Because the funds actually would have also upgraded Milwaukee-Chicago service, for this statement to make sense, it partially relies on a spatial conceptualization of the project as an entirely separate, Milwaukee-Madison line.

The Hiawatha line and potential for upgrading services would remain a relatively unproblematic notion even after Wisconsin's funds were revoked and redistributed to other states' HSR projects. Approximately one month after the funds were revoked, the *Milwaukee Journal Sentinel* (Sandler 2011, January 15) reported that "[t]he train to Madison may be dead, but the train to Chicago is as alive as ever" and that the Hiawatha line was a "prime candidate for a high-speed upgrade." Further, the Hiawatha line was described as being separate from the recent "controversy," and it was noted that while "Gov. Scott Walker has said little about his plans for the [Hiawatha line, the] Milwaukee-area business community strongly supports the route." Governor Walker would also eventually make an unsuccessful request from the U.S. DOT for $210 million for Amtrak upgrades – funds that were covered by the $822 million HSR funds WisDOT originally

received (Kaiser 2011, May 18). Finally, in an August 31, 2011 letter from WisDOT to the Minnesota Department of Transportation (MnDOT), the WisDOT Secretary of Transportation Mark Gottlieb reiterated the state's continued support for Wisconsin passenger rail service. Secretary Gottlieb wrote that WisDOT "[would] continue to support intercity passenger rail by focusing our resources on the Hiawatha and Empire Builder routes that have successfully served Wisconsin residents over the last 20 years" (MnDOT 2011).

Comparison to Automobile, not Air Travel

A major consequence of this spatial reconceptualization was that Wisconsin HSR was compared overwhelmingly to automobile travel, and rarely to air travel. The number of combined references to automobile-related travel were 756 compared to the 44 references to air travel made in the body of text. Moreover, many of these references to air travel were broad, and were made along with equally or more prominent references to automobile travel, such as in the following example:

> Providing another option to traffic-jammed freeways and hassle-plagued airports could attract new companies and young workers who prefer working on a train to sitting in traffic or being body-scanned in an airport. Add in gas prices that are bound to go up and Wisconsin's occasionally traffic-killing weather, and traveling by rail becomes even more attractive. (Milwaukee Journal Sentinel 2010, November 13)

Throughout the debate, HSR travel between Milwaukee and Madison was compared to the efficiency, cost and convenience of making the same trip by automobile. As one supporter wrote in a commentary piece in the *Milwaukee Journal Sentinel*:

> They have a car available and could drive, but they prefer to take the train. They are riders from choice. Why would they rather ride a train than drive? Because the train provides a better trip. It may be faster than cars stuck in traffic, it is safer and more reliable, especially in winter weather (Wisconsin gets a bit of that), and time spent on board is not wasted. Instead of just staring at someone else's bumper, they can work on their

laptop, read or get in a nap before or after a busy day at the office. The train saves them time. (Lind 2010, November 10).

Arguing against Wisconsin HSR, the author of a letter to the editor asked, "I understand the college kids want a shiny bullet train between Madison and Milwaukee. You can drive that in an hour — have they ever been out of the house?" (Hunter 2010, November 24). Candidate for Lieutenant Governor Rebecca Kleefisch stated in her television advertisement: "I know I don't need an $800 million high-speed train to get me to work fixing up Madison. I'm a mom and I have a minivan." (People for Rebecca 2010). Or, finally, as another commentator argued early on the in the debate:

> Currently, even in medium traffic, the trip by automobile from downtown Milwaukee to downtown Madison takes only one hour and thirty minutes. To gain the twenty-three minutes [saved by taking the train], one has to travel to and park at the Milwaukee train station or the Dane County Airport. Then the traveler would need to take a cab or a bus to their final destination. No can seriously believe that this "not-exactly-high-speed-rail" line would make the trip faster than one could drive it in an automobile. (Hausmann III 2009, March 31)

This spatial reconceptualization was remarked upon within reporting on Wisconsin HSR, albeit these appear to be the exceptions that prove the rule. In one of the rare occasions that this was explicitly pointed out in a local newspaper, Cari Anne Renlund of WisDOT was quoted as arguing:

> I think it's important to keep in mind that this is to Chicago. It's Madison to Chicago. It's not a commuter line between Milwaukee and Madison. People like to compare the train to cars all the time, but really it's regional travel. It's a much better comparison to air travel. (quoted in Stingl 2010, November 9)

Ron Krueger, Mayor of Watertown (one of the proposed intermediate HSR stops), expressed similar frustration after the federal funds were withdrawn that "[n]obody ever looked at the big picture" (quoted in Adams 2010, December 18). He was further paraphrased as arguing that there was far too much:

emphasis on only using the train to shuttle passengers between Milwaukee and Madison. … The train was supposed to be an alternative to flying or driving to places like Chicago, Minneapolis, Ann Arbor, Cleveland, St. Louis or Denver. It was not meant to be a commuter train to Milwaukee for Brewers games or Summerfest. (Adams 2010, December 18).

Consequently, the spatial reconceptualization of the project had a significant impact on the debate, as specific aspects of the project became similarly spatially truncated and functionally limited. Because the project was largely viewed as connecting two cities that are only approximately 80 miles apart (and outside of the generally acknowledged competitive range of HSR above 100 miles [FRA 2009; Goetz 2012a]), most of the facets of the debate were overwhelmingly compared to the generally more convenient conditions of automobile travel between the cities. This meant that passengers traveling to any destination on the rail network were thought of as limited to travel between Milwaukee–Madison, while the ticket costs, spatial fixity of the stations and temporal fixity of the train schedule appeared as serious drawbacks when related to the cost of gas, parking, and the relative spatiotemporal flexibility provided by personal automobile travel between these cities.

Arguments for Economic Impact of HSR Undermined

The debate was saturated with references to jobs and the economy. The word "jobs" appears in the text 765 times in the 501 articles of the body of literature analyzed, and it was a core theme throughout the entirety of the debate. In particular, supporters of HSR used predicted job-creation and economic development associated with HSR as the key argument for the project, evidenced by one of Governor Doyle's initial reactions to the funding announcement: "I am really pleased with President Obama's investment in the future of Wisconsin's economy. … This is a major job creation project that will provide a long-term boost to our economy" (quoted in Held 2010, January 28). This

concern persisted through the entirety of the debate. As stated directly in the title of a *Milwaukee Journal Sentinel* (2010, November 5) editorial calling upon Governor-elect Walker to reconsider his position on HSR, "There are jobs at stake."

Further, even when other anticipated benefits of HSR were touted by HSR supporters, the economic aspects of the project were typically foregrounded within the argument. Milwaukee Mayor and gubernatorial candidate Tom Barrett argued that HSR "[would carry] Milwaukee business people and residents to Chicago…" and he stressed the "economic, cultural, social and entertainment benefits of the rail connection…" (Barrett 2010, March 6). Bruce Speight, director of the Wisconsin Public Interest Research Group (WISPIRG) stated that "[WISPIRG supports HSR] for multiple reasons. It's going to create jobs and grow the economy by connecting our major cities. … [it is] essential in a modern economy to modernize our transportation system and reduce congestion in our cities and our airports.'" (Speight quoted in Petrie 2010 October 14, p. 4A). Finally, supporters were generally reported to "suggest a high-speed rail would boost economic development in communities along its path. Like the recent study, they also predict job growth and environmental benefits." (Hoffman 2010, September 27, p. 1A).

HSR opponents, especially Republican candidates, responded to the argument for jobs in two main ways. First, because the HSR service came to be perceived as an unnecessary, inefficient and unpopular service that was guaranteed to fail economically, and since it was to be constructed with federal ARRA funds and subsidized with state funds, any jobs created were viewed as a waste of taxpayer money. Instead of government-sponsored programs, Republican candidates argued that tax cuts and

spending reductions were necessary for job growth in the private sector, which explains

how they simultaneously and strongly argued against HSR yet for job creation:

> Job creation is atop [Republican State Representative] Nass' list of priorities if he's elected earlier this to another term, he said. He also is an opponent of the high-speed rail between Madison in Milwaukee, which he believes will hit taxpayers in the wallet. (Hoffman 2010, September 15).

> Or:

> "I think the voters responded to the message, the message I had on the campaign was focused on the issue of taxes and spending and putting the focus back on private practice job creation," [Republican State Representative] Zipperer said. … Zipperer … believed the biggest issue facing the state is the slow economic growth and high unemployment rates. Zipperer wants state leaders to lower spending and to stop expensive projects, such as the high-speed rail line between Milwaukee and Madison. Zipperer said he supports lowering taxes to attract outside businesses and to keep more money in the hands of private companies. He also said state regulations make it too difficult for businesses to grow. (Millard 2010, September 15).

> Consequently, although Republicans focused on job creation throughout the

campaign season, HSR was rejected as a job-creation project because these jobs were

"short-term [and] based on a government subsidy" (Scott Walker, quoted in Petrie 2010,

December 10, p. 1A).

Second, Republican candidates emphasized one specific figure, the 55 permanent

jobs estimated to be created through HSR, and did not include jobs created in

construction (which are inherently temporary), ancillary industries, and the predicted jobs

created indirectly through HSR's impact on Wisconsin's economy (Erickson 2010,

August 31; *Janesville Gazette* 2010, October 20; McNally 2010, November 16; Politifact

Wisconsin 2010, November 16; *Waukesha Freeman* 2010, October 28). Further, the

candidates often rejected higher job estimates outright. For example, as Casey

Himebauch, chairman of the Republican Party of Walworth County in southern Wisconsin, stated:

> [Governor] Jim Doyle is trying to do whatever he can to create a liberal legacy in Wisconsin by ramming $810 million train boondoggle. … By pushing out studies from a California 'non-partisan' group to inflate the projected benefits, … they are trying to hide the fact that just months ago, their own 13,000 jobs number they were pushing was slashed to 55 permanent jobs. That is almost $15 million per job created. (quoted in Hoffman 2010, September 27, p. 1A)

Elsewhere, Republican State Representative Rich Zipperer wrote:

> Doyle and his supporters in the Legislature are also insisting on a so-called high-speed train from Milwaukee to the Madison airport, a project that will cost over $800 million taxpayer dollars and will only result in 55 permanent full-time jobs. (Zipperer 2010, April 7, p. 8A)

Finally, as a clear example of the contrast in focus on job figure, in the September 24th, 2010 debate between the leading gubernatorial candidates, Tom Barrett stressed the 5,500 construction jobs created by HSR, while Scott Walker argued that the $7.5 million burden on Wisconsin taxpayers was not worth 55 permanent jobs (Bauer 2010, September 25). Consequently, opponents not only viewed the jobs created through HSR as undesirable because they were considered taxpayer-subsidized, but conservative politicians also focused the debate more narrowly on permanent jobs to the exclusion of construction jobs.

Discussion and Conclusions

In this chapter, I used a qualitative textual analysis of 501 newspaper texts from Wisconsin newspapers, which was complemented by a mix of other qualitative methods, to investigate the following research question: how did the rejection of Wisconsin HSR come to make sense despite favorable starting conditions and a history of bipartisan support for the project?

In sum, Wisconsin HSR, a project within the Chicago hub network of HSR, was meant to expand and increase speeds on Amtrak's popular Chicago-Milwaukee Hiawatha line service to Madison as an initial goal. This service was to then be expanded west, with the ultimate goal of connecting Chicago to Minneapolis-St. Paul with fast, frequent passenger trains as a competitive travel mode to flying and driving. The project had been under consideration for over a decade, and had bipartisan support. However, after the state was awarded federal ARRA funding for the project in 2010, the project became deeply politicized, and was a key issue in the gubernatorial campaign. Through the debate, Wisconsin HSR came to be spatially reconceptualized as a project serving to connect only Milwaukee and Madison, two mid-sized cities approximately 80 miles apart, with HSR service. Due to this distance, HSR was compared to automobile travel, and not to short-haul air travel. And, under 100 miles, HSR is considered to be less competitive compared to automobile travel (FRA 2009). Consequently, through this spatial conceptualization of the project, travel by HSR in this corridor appeared inconvenient and inefficient, and arguments against the project came to make logical sense.

The arguments made by HSR proponents centered overwhelmingly on the potential of HSR to create jobs and spur economic development, while also touting HSR as an energy efficient, less polluting form of travel that could help mitigate highway congestion and move the U.S. toward greater independence from (foreign) oil (Buchanan 2010, December 22; Learner 2009, August 29; Ferber 2010, August 19; Robinson 2010, May 9; Robson 2010 February 20; Zweifel 2009; August 10; 2010, February 10). However, as the project became spatially reconceptualized as a Milwaukee–Madison

commuter train which would fail to attract significant ridership, these arguments were significantly undermined. Simply put, if it is assumed that no one will ride the train because of the inconvenience and inefficiency of it, then none of these benefits would materialize. In addition to this lack of economic and environmental benefits, any jobs created would have been government-subsidized at a time of growing concern over federal and Wisconsin state debt. Meanwhile, despite the risk of Wisconsin repaying $100 million to the federal government, a general uncertainty prevailed in the debate, as Scott Walker argued that Wisconsin be allowed to use the HSR funds for the state's roads, and Republican congressmen drafted legislation that would allow states the option to use HSR funds to pay against the national deficit and debt.

Implications for Scholarly Literature

This research has a few important implications for the literature on the recent attempts to implement HSR in the U.S., literature which has primarily focused on broad arguments of the potential advantages and disadvantages of HSR at the national-scale. A specific implication that this case study has is that politics can trump quantitative evidence in debates over HSR. Quantitative evidence clearly suggested that Wisconsin would suffer greater economic losses in halting the project than in continuing it, and HSR supporters in Wisconsin rarely strayed from an argument of job-creation and economic development. Yet despite this consistency, the argument was unable to convince either the majority of the public or the Governor-elect that HSR was a worthy investment for the state to make. The emphasis among a number of transportation scholars has been that HSR must be argued along the lines of hard economic data (Levinson 2012; Ryder 2012a; Tierney 2012a; 2012b), and that non-economic arguments should be viewed as

"secondary units of analysis" (Tierney 2012a, p. 286). However, this research suggests that a narrow economic approach that neglects the politics of such projects can overlook significant aspects of why HSR implementation succeeded or failed in a given situation.

A further implication of this research relates to the importance of sub-national scale research on HSR implementation. Some transportation scholars expressed a taken-for-granted understanding of Amtrak as controversial in the U.S., and thus argued that this helped to fuel the politicization of HSR in these cases (Button 2012; Perl 2012a; Tierney 2012a). However, despite the fact that Wisconsin was at the fore of the politicization of HSR, and that it was the first state to successfully halt HSR, this research demonstrates that this controversy was not an outright rejection of Amtrak and passenger rail service. In fact, Amtrak never appeared as a particularly controversial entity throughout the debate, and Amtrak Hiawatha service was even discussed in terms of being separate from the controversy over HSR (Sandler 2011, January 15).

Nowhere throughout the debate did Scott Walker take aim at existing Amtrak service, nor did he phrase his opposition to Wisconsin HSR through a narrative of Amtrak-as-loser, as Perl (2012b) has suggested. Moreover, as governor, Scott Walker authorized a potential upgrade to existing Amtrak services (MnDOT 2011). Consequently, Perl's (2012a) suggestion that HSR was ultimately rejected in Wisconsin because it became increasingly clear that the project was nothing more than an upgrade of Amtrak service is not supported by this research. These findings also potentially complicate Minn's (2012b) argument that the outcome of the debate in Wisconsin is the result of socially-reproduced suburban-based values producing political structures that are hostile to rail-based solutions to crises of capitalism. After all, a HSR upgrade to the

Milwaukee-Chicago Hiawatha line has been considered, and the state has expressed a willingness to upgrade and increase speeds on the Empire Builder line in the segment between Chicago and Minneapolis-St. Paul (MnDOT 2011; Sandler 2011, January 15). Though Amtrak has had its detractors (Sandler and Johnson 2010, November 15), the resistance in Wisconsin was more nuanced than a simple rejection of passenger rail or Amtrak.

The conceptual framework of politics of mobility provided a means to address the competing interests, beliefs and normative values revolving around the project. The case of Wisconsin underlines what politics of mobility research has already demonstrated: the competing interests, normative values and beliefs embedded in mobility can be just as, if not even more, powerful in determining the outcome of contentious transportation projects than the quantifiable advantages and disadvantages discussed by experts (Henderson 2013a; 2011a; 2011b; 2006; Weitz 2008). Using a politics of mobility framework while recognizing that the debate over Wisconsin HSR was a "multi-scalar political struggle" (Holifield and Zupan 2013, p. 14), I was able to capture the importance that spatial conceptualizations of the project played in undermining the logic of the project. This is a perspective that has been missed in the national scale approaches, such as Minn's "totalizing" political economy of HSR, or Perl's (2012a) public policy theory approach to the politicization of U.S. HSR.

However, this research also has implications for politics of mobility research. Specifically, the results of this research suggest that the notion of spatial visions of mobility be expanded. That is, politics of mobility research has tended to focus on the normative visions of mobility, which entail prescriptive visions of how people feel

transportation and its spaces ought to be (e.g. Blickstein 2010; Furness 2010; 2007; Henderson 2011a; 2011b; 2006; Patton 2007; Prytherch 2012; Weitz 2008). Yet, in this debate, spatial visions about how things are, the ontic component of the spatial vision, or the "is" as opposed to the "ought," played a significant role. And while not everyone shared the same spatial conceptualization of the project, proponents and opponents alike debated the project in terms of a spatial conceptualization of Wisconsin HSR that was limited to a train connecting Milwaukee and Madison, and not as part of a larger line (i.e. Chicago-Madison, and eventually Chicago-Minneapolis-St. Paul), or even as part of a larger network of high-speed trains. Consequently, this case study suggests that future research using a conceptual framework of politics of mobility be attentive to not only how people envision how things ought to be, but how people understand a particular arrangement of mobility and space to be structured. For specific transportation projects, this requires that researchers investigate how people understand the spatiality of the project to be, as well as its function and how it works.

Chapter Three
Moving forward or taking a stand? Discourses surrounding the politics of Wisconsin High-Speed Rail

In this chapter, I dig deeper into the meanings of HSR in the debate in Wisconsin using discourse analysis. I find that, for conservatives, their opposition was not only against the project due to its cost for Wisconsin, but also due to its larger symbolism as "taking a stand" against both excessive federal government spending and overreach, as well as the project's status as a perceived threat to status quo values that depend on automobility for their fulfillment. Progressives, on the other hand, generally viewed HSR as not simply expanding a mode of transportation to serve an additional market, but as generally symbolic of "moving Wisconsin forward" toward a utopian social vision of an economically and environmentally sustainable future. This chapter highlights the importance of the multiplicity of meanings that HSR has for people, and their impact on HSR's prospects for success. It also serves as a caution against overly rigid explanations of the politicization and troubled deployment in 2010 U.S. HSR.

Introduction

The struggle over the implementation of the Obama administration's "Vision for High Speed Rail" (White House 2009) has revived interest in the prospects for the development of high-speed rail (HSR) in the United States (Goetz 2012b). Within transportation geography, the scholarly debate has largely been concerned with HSR's prospects for success based mostly on quantifiable variables, such as the economics of HSR (Button 2012; Ryder 2012a; Tierney 2012a), its impact on the built environment (Johnson 2012; Ryder 2012a; Tierney 2012a); the importance of the average speeds of HSR for its success (Givoni and Banister 2012; Johnson 2012); and the environmental

benefits of HSR (Givoni and Banister 2012; Levinson 2012). Despite a recognition among transportation geographers that public perceptions of HSR are significant for its chances of success (Chen and Zhang 2010; Garmendia et al. 2012; Mathur and Srinivasan 2009), the meanings that are associated with HSR in different regions of the country have received little attention.

In this exploratory research, my primary task is to contribute toward addressing this gap by investigating the meanings that HSR had in Wisconsin, the first state to have succeeded in halting work on a HSR project. I use poststructuralist discourse theory as a method to approach excavating the meanings that were significant in the debate over, and ultimate rejection of, the Wisconsin HSR project in 2010. This approach to discourse theory views discourses not as inevitable but as always contingent, open to challenge, and never completely exhaustive of meaning (Howarth 2000; Laclau 2005). Specifically, I investigate the following research question: How did the discourses surrounding the project in Wisconsin take shape?

In the next section, I review the transportation geography literature on the recent HSR debate, as well as mobilities research on automobility as a significant source of meaning for mobility in the U.S. I move on to proposing discourse theory as a method. Because discourse is an often used but ill-defined concept (Mills 2004), I explore a range of approaches to the notion of discourse so as to make clear the manner in which I use the term for this research, after which I introduce my methodology. Then, I describe the discourses surrounding Wisconsin HSR, before discussing the results of this research.

Literature Review

Transportation Geography and the Recent HSR Debate

One month after President Obama's inauguration on January 20th, 2009, he made a historic announcement of a vision for a national HSR network, committing $8 billion in dedicated funding from the American Recovery and Reinvestment Act (ARRA, commonly referred to as "the stimulus") to the project (Chen and Zhang 2012; Minn 2012b; White House 2009). On April 16th, 2009, the president unveiled detailed plans for the national network, and announced a call for applications for the HSR funding, which was to be awarded based on how the projects fit with the federally-identified HSR corridors (White House 2009). On January 28th, 2010, the White House (2010b) announced that projects in 31 states would receive funding. Ultimately, a number of these projects were heavily debated in the run-up to the 2010 midterm elections, with newly-elected governors in Wisconsin, Ohio, and Florida rejecting the awards their states had been granted (Goetz 2012a; Perl 2012a).

This series of events brought HSR into the spotlight in transportation geography, as evidenced by a special section on HSR in the U.S. in the *Journal of Transport Geography* (Goetz 2012c), and an associated panel session at the 2012 meeting of the Association of American Geographers (Goetz 2012b). Thus far, the scholarly debate has primarily revolved around economic issues (Button 2012; Ryder 2012a; Tierney 2012a); the relative importance of the speed of HSR trains (Johnson 2012; Lane 2012a); the accessibility of the planned network (Levinson 2012); HSR's role in contributing to a shift to a more sustainable transportation paradigm (Givoni and Banister 2012); and right-of-way issues, particularly involving freight rail (Lane 2012a; Lane 2012b; Ziolkowski

2012a). These quantifiable aspects of HSR have then been used to assess the viability of HSR in the U.S.

Minn (2012a) and Perl (2012a) have both demonstrated that the impetus for HSR development in the U.S. in recent years has been due more to politics than to a clearly identifiable need, which suggests that public perceptions of HSR will be highly important for its successful establishment. Likewise, Garmendia et al. (2012) have argued that public participation is critical for the success of HSR in the U.S. They claim that this participation is especially important considering that, apart from the major urban regions on the East and West Coasts, most Americans "[prefer] to continue the American way of life based on car use and regional air connections" (p. 29). Mathur and Srinivasan (2009), looking specifically at the potential for HSR in the Midwest, have likewise stressed the need for authorities to highlight the advantages of HSR to win public support. As one of their six lessons for implementing HSR efforts in the Midwest, they argue for the need to "[c]onduct extensive public outreach," since the "[p]rovision of HSR is ultimately as much a political decision as technical" (p. 72).

While the importance of public perception has been identified, much of this recent research has not attempted to ascertain it. One exception is Becker and George's (2011) survey of individuals from the Gulf Region regarding the potential of creating a HSR service between New Orleans, Louisiana and Mobile, Alabama, particularly with respect to its potential to foster growth in the local tourism economy. Becker and George described reactions to the Obama administration's vision for HSR as mixed, and asserted that Americans do not take a long-term view and remain in love with the car, which "epitomizes American culture" (2011, p. 385). In particular, they argued that the southern

US is "notably conservative and resistant to change," which suggests that the "acceptance" of HSR and its potential for success in the region is "highly questionable" (p. 388).

Their exploratory research thus constituted an attempt to gain a better sense of perception of HSR in the Gulf Region. Based on their statistical analysis of 202 questionnaires with casino staff, university students and staff, and patrons of local business, they reported that individuals responded positively that they would make use of HSR for tourism purposes, but less so for daily commuting. Becker and George concluded that HSR can be successful in the region, and "entice even the most conservative traveller" (p. 392) if the project provides fast and convenient service between the region's important tourism and entertainment destinations. And, in order for the project to be successful in the long-term, they argue that it will mean drawing in tourism stakeholders to take up and share this vision of HSR. In considering the attitudes among local residents in the Gulf Region toward HSR, Becker and George's contribution points to the importance of considering the different meanings HSR will have for people in different places. Such a perspective suggests that in order for HSR to be successful in a given place, it will have to come to make sense within the spatially and temporally contingent web of meanings in its region.

Meanings of Mobility

Transportation geographers have tended not to address questions of meaning (Goetz et al. 2009; Shaw and Hesse 2010). However, in contrast, mobilities scholars have taken meaning as one of three key aspects of mobility (Cresswell 2006a). That is, mobility can be viewed as being "as much about meaning as it is about mappable and

calculable movement" (Cresswell 2010a, p. 552). Of particular relevance for exploring the meanings bound up with HSR in the U.S., as Becker and George (2011) point out, is the challenge associated with the automobile's role in helping to define the American way of life. The automobile has undeniably achieved an incomparable level of dominance among modes of transportation in the U.S., such that the meanings of HSR must be understood in relation to the hegemony of the automobile, or the "regime of automobility" (Fincham 2006; Freund and Martin 2009; Furness 2010; Henderson 2013a; 2011b; Pesses 2010; Prytherch 2012; Sheller and Urry 2006; 2000).

The regime of automobility refers to the material, cultural, and economic dominance of the automobile and its spaces, and encapsulates the material infrastructure (freeways, parking lots, overpasses, gas stations, motels, etc.); the systems of production and regulation; and the values that create and sustain automobile dominance, while simultaneously subordinating other modes of transportation (Böhm et al. 2006; Collin-Lange and Benediktsson 2011; Conley and McLaren 2009; Featherstone 2004; Henderson 2011b; 2006; Sheller and Urry 2000; Urry 2006; 2004). Significant for this discussion is the fact that automobility is implicated in a number of antagonisms (Böhm et al. 2006), including: environmental degradation, prodigious resource use, and geopolitical conflict (Cohen 2006; Goodwin 2010); economically wasteful patterns of consumption and development (Litman 2009; Trumper and Tomic 2009); widespread death and injury (Beckmann 2004; Forstorp 2006; Jain 2004; Norton 2008; Short and Pinet-Peralta 2010; Wells 2007); and new and pervasive forms of social exclusion (Bostock 2001; Casas 2007; Davey 2007; Farber and Páez 2011; Freund and Martin 2009; 2007; Renne et al. 2011; Rogalsky 2010a; 2010b). These antagonisms of

automobility, many of which appear intractable, make it a particularly contestable system of mobility. Indeed, it produces risks that would seem to "threaten the very foundations of this mobility paradigm" (Beckmann 2001, p. 593). Yet despite this, its continuation appears to remain largely uncontested (Böhm et al. 2006; Henderson 2011a; 2011b; 2009a; Paterson 2007).

This apparent contradiction raises an important question: if automobility is such a hazardous and problematic system of mobility, how does its continued reproduction make sense? Some scholars have focused on the materiality of automobility and how its restructuring of the built environment and social-life has locked the U.S. and Western society more generally into automobility as a solution to a problem that this system of mobility itself creates (Sheller and Urry 2000; Soron 2009; Urry 2006; 2004). Urry (2004) describes the spread of automobility explicitly in terms of a virus-like global epidemic; once a particular place is infected, it becomes "irreversibly locked in" (p. 27). Urry has outlined automobility as:

> a self-organizing autopoietic, nonlinear system that spreads world-wide, and includes cars, car-drivers, roads, petroleum supplies and many novel objects, technologies and signs. The system generates the preconditions for its own self-expansion. (2004, p. 27)

From this perspective, the materiality of automobility creates a spiraling process toward greater automobility (Nuhn and Hesse 2006) because it rearranges not only the built environment but the spatio-temporalities of social-life such that the automobile becomes a necessary component for negotiating common tasks of everyday life (Urry 2004). When taken as a broad generalization at a global scale, Urry's overall theorization is compelling. However, within the context of specific struggles over transportation, it is less so. This is because the biological metaphor of automobility as virus-like, self-

organizing and autopoietic (or a system capable of self-reproduction and maintenance) mystifies the myriad politics and practices that produce the regime of automobility, and erodes the prospect of resistance to it (Henderson 2009a; Trumper and Tomic 2009). It makes abstract and global a process that is materialized through a series of real and specific decisions, practices, and struggles. Consequently, this totalizing conceptualization of automobility must be combined with a more political conceptualization of the reproduction of automobility that attends to the contingencies of its reproduction.

A general consensus is that alongside the material aspects of automobility which often have a coercive effect on driving people to drive in order to be mobile (Dennis and Urry 2009; Soron 2009), there are values, ideologies, or discourses about mobility that legitimize automobility's reproduction, suggesting that driving is the good and right thing to do and naturalizing this coercion (Böhm et al. 2006; Henderson 2009b; Sheller and Urry 2000). In their brief discussion of the justifications for automobility, Böhm et al. (2006) build on Michel Foucault's work on the "regimes of truth, power and subjectivity" (p. 6). First, the regime of truth involves how both automobility and automobiles are "self-evident embodiments" (p. 6) of statements that naturalize the reproduction of automobility by asserting that cars are the most efficient, convenient, cheap, stylish, modern, and democratic mode of transport, and that they are liberators. While these serve as unquestioned and ostensibly "natural facts," (p. 6) ultimately they are contested and mutually contradictory. Second, automobility's regime of power involves the wide-ranging regulatory structures that serve to order, control and regulate the movement of automobiles. This wide-reaching and inescapable regulation necessarily puts limits on the

freedom of driving, despite the widely-held belief that automobility "exemplifies freedom" (Böhm et al. 2006, p. 6-7; Lutz and Lutz-Ferdinand 2010; Rajan 2006; Urry 2006; Williamson 2010). Third, automobility's regime of subjectivity binds driving to individualism, and further, it leads to a "normalization of driving [as simply] what *normal people* do" (Böhm et al. 2006, p. 7, emphasis original).

This normalization has been alternatively discussed in terms of an "essentialization of automobility" (Henderson 2006). Henderson (2006) states that automobility is considered a "universal given" in U.S. cities, and is "subsequently overlooked as a site of struggle over urban space, while claims of a 'love affair' with automobiles veil the deeper social meanings embedded in automobility" (p. 294). The love affair with the car, and the automobile being bound to the "good life" have often been considered notions that help to normalize the incomparable role of the automobile in the U.S. as a mode of transportation (Sheller and Urry 2000; Urry 2004; Seiler 2008; Furness 2010). Through this ubiquity of the automobile, cars become "part of the way things are," and mask "the social and cultural relations out of which they emerge" (Edensor 2004, p. 102).

The essentialization of automobility renders non-automobile modes of transport as deviant in contrast (Böhm et al. 2006; Bonham and Cox 2010; Cuttler and Malone 2005; Prytherch 2012). An excellent example is the historical hostility and marginalization of urban bicycling in U.S. cities, a transportation mode which competes with automobiles not only for street space, but also in terms of self-reliance and swiftness in navigating urban spaces (Bonham 2006; Blickstein 2010; Fincham 2006; Furness 2010). As deviant to the norm, non-motorists are easily marginalized in the U.S. politics

of mobility, making effective resistance to automobility appear "nearly impossible" (Sheller and Urry 2000, p. 749). This then paradoxically allows for the choice of transport mode to be eroded in the name of the freedom to be mobile. There is a general perception of freedom as having been achieved in the U.S. (Norton 2008; Rajan 2006; Williamson 2010). And, under late capitalism, liberal thought shifted from an earlier understanding of negative freedoms (the freedom from), to positive freedoms (or the freedom to) (Rajan 2006). Negative freedoms of mobility have succumbed to the positive freedom to drive, such that the negative right for pedestrians and bicyclists not to be hit by automobiles eventually became subordinated to the positive right to drive (Norton 2008; Prytherch 2012).

The scholars discussed in this section contributed toward understanding how automobility is sustained, and how, in the politics of mobility, alternatives, such as a HSR project, often end up being suppressed. However, in moving toward integrating automobility into a discussion of the meanings of HSR in Wisconsin, there is a danger of deploying automobility conceptually in a totalizing manner that reifies it as being responsible for the end of HSR. For example, without even leaving the realm of U.S. cities, bike-friendly Minneapolis (Alliance for Biking & Walking 2014) is no bike-hostile Dallas, which in 2012 received the title of "the (one and only) worst city for bicycling in the entire country" (Wilonsky 2012, May 23); transit-friendly Denver is no Atlanta, which is arguably the worst U.S. city for public transit amongst cities of its size (Time 2011, May 12); and walking in the safest big U.S. city for pedestrians, Boston, is far from the experience of walking in mostly car-dependent, Jacksonville, Florida, one of the most dangerous cities for pedestrians (Alliance for Biking & Walking 2014). Simply speaking

of automobility dominating all of these places tremendously obscures difference. Instead, automobility could be more accurately described as the result of myriad practices, interests and relationships that have aligned to form historically contingent "constellation[s] of mobility" (Cresswell 2010b, p. 26). Consequently, all automobilities should be viewed as ultimately spatially and temporally contingent. I recognize automobility in the singular as an "ideal type" (Weber 2011/1949) of constellation of mobility, or a theoretical abstraction with no existing "pure" form.

Along with the differences in people's lived experiences and practices of a contingent constellation of mobility, one would expect divergences in the way that mobility is thought about, valued, and struggled over. Consequently, in researching the meanings in the debate over Wisconsin HSR, I use a conceptualization that not only allows for, but also assumes contingencies and particularities of meaning in the debate. To accomplish this task, I use discourse analysis as a method in order to describe and interpret the discourses surrounding HSR in Wisconsin.

Discourse Theory as Method

Discussing discourse presents a very particular problem, because, despite being one of the most widely-used concepts, it tends to remain poorly defined (Mills 2004; Phelan and Dahlberg 2011). The meaning of the term "discourse" depends upon the theoretical context in which it is deployed, and these various theoretical contexts involve particular ontological and epistemological assumptions, which need to be carefully considered in using the term (Howarth 2000). To define my use of discourse, I discuss varying conceptualizations of discourse and closely related notions below. This discussion cannot be viewed as exhaustive. Instead, it is highly selective, with the aim of

providing some insight into the widely-varying uses of concepts that often fall under the umbrella term of discourse, while building toward the framework I use to address the case of Wisconsin HSR.

I begin this section with a description of the more positivist approach to discourse found in framing theory, followed by a discussion of Marxist interpretations of ideology, particularly as theorized by Louis Althusser. I then address the poststructuralist and post-Marxist contributions to discourse theory building on Michel Foucault and Ernesto Laclau, which serve as a theoretical basis for my approach to discourse theory that I adapt from Howarth (2000).

Frames as discourses

Framing is a narrower, instrumental, and generally more positivist approach to discourse (Howarth 2000). Framing is viewed as a way to connect the social construction of ideas to studies of political opportunity structures and resource mobilization within social movement studies (Oliver and Johnston 2000). A frame is the cognitive schema that has been described in metaphorical terms as a picture frame, because it focuses attention onto the contents of the frame, and simultaneously focuses attention away from what is outside the frame (Noakes and Johnston 2005). While frames are typically snapshots of how relatively coherent groups or organizations make sense of a particular issue as a problem worth addressing, framing processes are dynamic, negotiated, and contested (Oliver and Johnston 2000). Significantly, framing is typically considered a conscious and strategic effort (Benford and Snow 2000; Oliver and Johnston 2000; Snow and Benford 2000; 1988). Framing theory views social movements and their leaders as active signifying agents within contentious politics who produce meanings and direct

these at participants in their movement, as well as movement opponents, and bystanders (Cress and Snow 2000). Frames in this sense help to bring about common understandings of the world for a specific purpose, so the task of discourse/frame analysis is to investigate how effective the frames are in realizing their goals (Howarth 2000; Johnston 2005; Gerhards 1995).

Snow and Benford (1988) identify three core tasks of framing: diagnostic framing; prognostic framing; and motivational framing. Diagnostic framing addresses two issues: first, it must present a new interpretation of and bring attention to an issue as a social problem; second, and related to the fact that this issue is a *social* problem, and not the result of a string of chance events, it must attribute blame for this problem to some agent (Noakes and Johnston 2005; Cress and Snow 2000). Framing scholars typically take the diagnostic frame as the first, or the frame which involves the formation of the social problem itself. Here, the logic is that without the identification of the social problem, no move toward collective action can happen. Prognostic framing revolves around the solution to the identified problem, but it also entails strategies and tactics for addressing the problem (Benford and Snow 2000; Snow and Benford 1988). The prognostic frame then gives a course of action which tends to build upon the problem, and the party responsible for the problem, identified in the diagnostic frame. Finally, motivational framing functions as a "call to arms" (Benford and Snow 2000, p. 617). That is, framing scholars argue that simply identifying a problem as a social problem, attributing blame to a particular party, and offering a solution by themselves are not enough to motivate people to action (Benford and Snow 2000). While it seems likely that these framing processes and their resultant collective action frames evolve

interdependently, and that their separation is reflective of analytical utility more than theoretical prescriptions (Martin 2003), framing theory scholars nonetheless tend to speak in explicit temporal terms of diagnostic and prognostic framing "preceding" (Snow and Benford 1988, p. 202) motivational framing, which is the "final core framing task" (Benford and Snow 2000, p. 617).

The tendency of framing theory to begin with problem identification and the attribution of blame reflects the fact that framing is most easily applied to clearly defined organizations or groups who have already begun to organize around a particular (set of) demand(s) (Cress and Snow 2000; Hart 2008; Ernst 2009; Snow and Benford 2000). Identifying a particular group or set of groups then allows the researcher to address a more or less coherent collective action frame that has been strategically and actively created through negotiations and struggles (Benford and Snow 2000). It then becomes possible to examine how organizations come to convince individuals to join in collective action.

One of the key factors for whether a group can encourage people to become constituents involves whether or not the frame resonates with them (Ernst 2009). Benford and Snow (2000; Snow and Benford 1988) have broken down "frame resonance" schematically into two main factors: credibility of the frame, and its relative salience. The credibility of the frame is further broken down into three factors, which get at the consistency of the frame, its empirical credibility, and the credibility of the frame articulators. The relative salience of the frame is likewise broken down into three main components. First, salience depends upon the centrality of the frame's contents relative to constituents' lives. Second is the "experiential commensurability" (Benford and Snow

2000; p. 621) of the frame, or whether it fits the everyday experiences of potential constituents. Third is the narrative fidelity of the frame, or its "cultural resonance" (Benford and Snow, p. 622; Ernst 2009, p. 187), which refers to how congruent the frame is for the potential constituents' cultural narrative.

A strength of a framing approach is primarily methodological, as it is accessible, intelligible, and relatively easily operationalized (Benford and Snow 2000; Hart 2008; Noakes and Johnston 2005). That is, framing is best used for addressing the collective action frames revolving around identifiable organizations or groups. Within this context, framing provides a straightforward conceptual framework for addressing how these organizations go about making meaning. Because frames, as the meaning created by groups, are considered to be empirically observable (Johnston and Oliver 2005; Snow and Benford 2000), framing most clearly dictates that texts are used to get at frames (Benford and Snow 2000; Gerhards 1995; Johnston 2005). This includes the groups' documents, speeches, and interviews (Ernst 2009; Kurtz 2003; Martin 2003) and/or other sources that get directly at the statements of those involved, such as Hart's (2008) use of a major survey of activists from a particular movement.

Although framing is easily applied to relatively coherent organizations or groups, one of its greatest weaknesses is that this methodology would be difficult to apply in cases such as Wisconsin HSR, which was a more nebulous and complex, "multi-scalar political struggle" (Holifield and Zupan 2013, p. 14). The politics of Wisconsin HSR involved not just specific organizations or groups, such as the Sierra Club, or labor unions, but also key individuals from the federal government, U.S. DOT, and elected officials at various scales of government in Wisconsin, to the more populist conservative

resistance exemplified by the Tea Party (Daykin 2010, November 20; Goetz 2012a; *Milwaukee Community Journal* 2010, November 16; Walker 2010, March 6; WISN Milwaukee 2010). Based on this weakness alone, framing would be inadequate for addressing meanings surrounding Wisconsin HSR.

Beyond this, however, framing has a number of weaknesses in theoretical terms, because it tends to ignore deeper theoretical questions of power, the source of controversies, and role of the state in contentious politics. These issues become increasingly clear in relation to Marxist and poststructuralist approaches. Framing treats individuals involved with groups as actively doing signifying work, and so the meanings involved are actively created by individuals involved. Framing neither assumes influencing structures behind frames, nor does it treat frames as including practices and materiality. Aside from having a simplistic view of the creation of meaning, framing theory's positivist bent has been argued to lead to an oversimplification of the reasons why people get involved in contentious politics (Hart 2008). Furthermore, it has been critiqued for not allowing for identity categories to be critically considered, but instead assuming them as given (Ernst 2009). Ultimately, this weakness is a reflection of the theoretical underpinning of framing theory that assumes stable, pre-existing identity categories of people.

Marxist interpretations: ideology and discourse

Within Marxist theory, the concept of ideology is the primary instance of discourse (Howarth 2000; Mills 2004). As originally argued by Marx and Engels, ideology appears as a false consciousness in which the capitalist class enforces its own interests essentially by tricking the proletariat into behaving in a manner that reinforces

the domination of the bourgeoisie (Howarth 2000). That is, ideology obscures the conditions of production and the uneven distribution of power and capital, and it functions to reproduce capitalist-labor relations.

Gramsci (2000) recast ideology in a more neutral sense, as opposed to the strictly negative sense of ideology in Marxist theory. To understand this reformulation, one must relate it to one of the key contributions Gramsci made, his retheorization of hegemony, which for Gramsci goes hand in hand with ideology (Howarth 2000). Gramsci (2000, p. 194) extended the meaning of hegemony beyond the notion of political leadership of one class over another to include cultural and moral leadership. For Gramsci (2000), the state is not simply comprised of the government and political society. Instead, Gramsci (2000) views the state as the integral state, which pulls together both political society (what is traditionally thought of as the state) and civil society (the institutions that are traditionally thought to exist outside of/apart from the state, such as the Church, social clubs, trade unions, etc.). Rather than people being coerced as a combination of repression and coercion by the state, on the one hand, and, on the other, being duped through the notion of false consciousness by the bourgeoisie, the Gramscian view of the state's exercise of power is one of a combination of coercion (through the military, police, legal system, etc.) and the production of consent through civil society, such that "one tries to make it appear that force is supported by the consent of the majority, expressed by the so-called organs of public opinion" (Gramsci 2000, p. 261). The critical contribution Gramsci made, as Said (1979) argued, is to say that in all but totalitarian societies, domination happens not simply through force, but also culturally, as consent is produced through civil society.

Borrowing from Gramsci's notions of ideology and hegemony, Althusser furthered this reformation of the concept of ideology by emphasizing its materiality and practices (Althusser 1971; Howarth 2000). Althusser (1971) built on Gramsci's (2000) political society and civil society to discuss ideology through repressive state apparatuses, (RSAs), and ideological state apparatuses (ISAs), respectively. For Althusser (1971), the RSAs are instituted through the legal system, the police, and the military, and belong to the public domain, and they function predominantly through force, violence, and coercion, and secondarily through ideology. The ISAs work through civil society institutions such as schools, churches, trade unions, etc., and belong to the private domain, and rule predominantly through ideology, and secondarily through force. Neither RSAs nor ISAs function totally through force or ideology. Ultimately, even while ISAs are relatively autonomous, according to Althusser, they "contribute to the same result: the reproduction of production, i.e. of capitalist relations of exploitation" (p. 154).

Althusser (1971) stated that "*all ideology hails or interpellates concrete individuals as concrete subjects*" (p. 173, emphasis original). He gives the example of the policeman on the street, who calls out "you there!" (p. 174). In the act of physically turning around, the individual becomes the subject of the hailing. Althusser argued that while this act of interpellation is presented as happening in succession, the process is actually simultaneous. The interpellation of particular, concrete subjects is a crucial aspect of ideology for Althusser, such that "[t]he existence of ideology and the hailing or interpellation of individuals as subjects are one and the same thing" (p. 175). Subject in the Althusserian sense is taken to have a dual meaning: it implies both a free subjectivity, as well as being subjected to something. In this sense, the subjects must believe they are

acting freely even while wholly submitting to a particular constellation of production and power (Althusser 1971; Robbins 2007). For Althusser (1971), then, ideology is the dominant system of ideas in a society that functions by denying its own ideological character. In order for ideology to function properly, others must appear ideological, whereas you yourself are not (Althusser 1971; Robbins 2007). This means that one does not do certain things simply because one is told to; rather, there has to be the tacit idea that doing certain things is "right and good" to do (Robbins 2007, p. 15). Not doing the particular things that the ideology proscribes, then, causes one to be cast as deviant and ideological in contrast to those who do what is right and good.

The Althusserian approach to ideology moves beyond the simplistic understanding of an entirely cognitive notion of discourse versus material reality and practice exemplified by framing, to a notion that explicitly includes politico-economic interests, materiality, and practices as a part of ideology. This perspective fits well with the conceptualization of automobility as a system that is simultaneously "immensely flexible *and* wholly coercive" (Urry 2006, p. 19, emphasis original), and one in which its ideological nature remains hidden behind an understanding of car-driving as part of what it means to be a "normal" person (Beckmann 2001; Böhm et al. 2006; Conley and McLaren 2009; Cresswell 2006a; Goodwin 2010; Henderson 2009a; 2006; Rajan 2006; Paterson 2007; Williamson 2010). For the case of Wisconsin HSR, an Althusserian conceptualization of ideology would suggest that entirely car-dependent people, as automobile-subjects, have the idea that participation in driving is more or less necessary for being a proper and good citizen. In contrast, individuals that fail to respond to the hail to become an automobile-subject, and instead choose to use HSR as a mode of

transportation, are viewed as suspect and ideological, while their particular claims about mobility are not considered valid.

An issue with an Althusserian interpretation of ideology relative to other notions of discourse is the emphasis on the primacy of the state, and the insistence that the economic base is a foundation for all ideology. Althusser was explicit in asserting that in order for the state to exercise power, it must exercise hegemony over the ISAs, and that while these ideologies operate in relative autonomy, they are ultimately always "*beneath the ruling ideology*" (Althusser 1971, p. 146, emphasis original). That is, all other ideologies are a priori presumed to be subordinate to the ideology of the state, and all conflicts are ultimately class-based (Althusser 1971; Glaze 2007a). Using an Althusserian approach to ideology in order to make sense of the meanings of the debate over Wisconsin HSR would require the problematic starting assumption that the conflict ultimately boils down to class conflict. Moreover, suggesting that automobile-subjects are not recognizing their true interests elevates academics to a position from which they are capable of distinguishing between false and true interests, while these subjects are not capable of doing so (Howarth 2000).

Poststructuralist/Post-Marxist discourse

In this subsection, I describe the aspects of poststructuralist discourse theory that are significant for the approach I use in investigating the discourses surrounding Wisconsin HSR. I begin by discussing some of the broad contributions of Michel Foucault to retheorizing discourse in order to demonstrate significant points of divergence between Marxist ideology and poststructuralist/post-Marxist discourse. Then,

I discuss a few key concepts from Ernesto Laclau which I draw on in this research. Finally, I outline my approach to discourse analysis, following Howarth (2000).

Foucault on discourse

Poststructuralist theorizations of discourse resulted in an unsettling of a priori assumptions about subject-positions, identities, and the nature of power, while the historicity and contingency of discourses were emphasized. The work of Michel Foucault was particularly influential in retheorizing discourse. While Foucault's (2010; 2004; 1995; 1990) use of discourse reflects varying definitions throughout his work, a general definition could be that discourses refer to systems of relatively bounded areas of knowledge which both limit and enable what can be thought and said, and determine what is true and false (McHoul and Grace 1993; Said 1979; Waitt 2010). That is, Foucault viewed discourse as beyond simply that which is said, but rather dealing with that which is possible to say. Foucault rejected the underlying economic determinism in Marxist interpretations, as well as the misrecognition of subjects via interpellation (Howarth 2000). His contribution was also significant in shifting theorizations of power as a strictly negative force, one that inhibits, to a notion of power as productive (Said 1979). As Foucault (1995) notes in *Discipline and Punish,* "[w]e must cease once and for all to describe the effects of power in negative terms … [i]n fact, power produces; it produces reality; it produces domains of objects and rituals of truth" (p. 194).

Another significant divergence from Marxist theory in Foucault's work was his disinterest, and even unwillingness, toward providing answers to questions of normative visions of the future and tactics of resistance. As he stated in his famous 1971 debate with Noam Chomsky:

> I admit to not being able to define, nor for even stronger reasons to propose, an ideal social model for the functioning of our scientific or technological society. On the other hand, one of the tasks that seems immediate and urgent to me, over and above anything else, is this: that we should indicate and show up, even where they are hidden, all the relationships of political power which actually control the social body and oppress or repress it. (Foucault, in Chomsky 1971, n.p.)

While this unwillingness to address resistance and visions of the future cannot be said to be representative of poststructuralist discourse theorists as a whole (Howarth 2000), this quote does help to illustrate the greater degree of uncertainty in poststructuralist and post-Marxist approaches to discourse. As Mills (2004) has argued:

> Whereas Marxist views of history and progress tend to lead to fairly clear-cut utopian views of what is to be achieved … models of action formulated using discourse tend to formulate rather messy, complex visions of the future. (p. 27)

Laclau on discourse

While having a "clear theoretical debt to Foucault" (Phelan and Dahlberg 2011, p. 11), more recent work by post-Marxist philosopher Laclau (2005; Laclau and Mouffe 1985) goes further than Foucault by dissolving the ontological distinction between the linguistic and non-linguistic elements of discourse. From this perspective, there is no non-discursive sphere (Laclau 2005; Glasze 2007a). For example, while a forest has a real material existence, its social meanings (as an impediment to highway development, as a source of lumber, or as a nature preserve) are produced through discourses (Howarth 2000). Consequently, discourse for Laclau is opened up to consider not just language, but objects and practices as a part of discourse, understanding that their meanings are ultimately derived relationally, or through the differences between elements (Glasze 2007a; Howarth 2000). In the case of Wisconsin HSR, this dissolution would suggest that the language of the HSR debate cannot be cleanly separated from either the actions taken by various stakeholders, or the materiality of the debate. Instead, "both the extra-

linguistic and linguistic elements are material and always already have a constituting effect on each other" (Phelan and Dahlberg 2011, p. 4).

Simultaneously inspired by, but breaking with, the Marxist tradition, Laclau and Moufe (1985) radicalized Gramsci's work by removing the still remaining aspects of class-based determinism from their work on contentious politics (Angus 1998; Glasze 2007a; Phelan and Dahlberg 2011). From this perspective, antagonisms, or political contentions, do not happen just between pre-existing classes, as in Marxist ideology, or pre-existing identities, as in framing; rather, antagonisms themselves are constitutive of identity (Laclau 2005). One aspect particularly important in Laclau's (2005) work *On Populist Reason* was the discursive constitution of "the people" in the populist sense.

Particular demands, which Laclau (2005, p. 74) called "democratic demands," are initially viewed as isolated, meaning that they are not connected to other demands and would disappear if fulfilled. Laclau (2005, p. 73-74) used the term "demand" in a manner that is understood as something that begins as a "request" made of, for instance, the local authorities, but as it remains unfulfilled, it turns into more of a "claim" being made. For example, local residents are dissatisfied with the quality of streets in their city, and make a demand of local authorities to repave them. If this demand is fulfilled, it simply ceases to exist as a request. If it is not fulfilled, it turns into more of a claim being made. And, if it remains unfulfilled, people begin to relate this demand to other demands made by people in their community, such as: property taxes are too high, there is too much congestion on local highways, the local schools need to improve performance, the police need to do more to reduce crime, spending on public transportation is too high, etc.

As such democratic demands are brought in relation to each other, they are connected by what Laclau (2005) refers to as an "equivalential chain" (p. 73), which makes these democratic demands appear equivalent, and masks the differences between them. Although the differences between these demands are not entirely eliminated, these demands "are equivalent to each other in their common opposition to the oppressive regime" (p. 131). Through this "logic of equivalence" (p. 78), they become "popular demands" (p. 74). The various individuals making the popular demands are constituted through these demands as "the people" (p. 74). This chain of equivalences also forms what Laclau (2005, p. 84) refers to as an "antagonistic frontier" between "the people" and those who are not fulfilling the people's demands. The group that has been constituted as "the people" is, of course, only a part of the whole population, but this individual part of the whole comes to symbolize the entirety of the whole. They come to identify themselves as the real people of the community, who are defined in terms of what is external to them—the local authorities who are denying them their interests. Populist discourses thus make appeals "in the name of 'the people,' 'the nation' or 'the community'" in an attempt to "galvanize a common set of values, beliefs and symbols" (p.129) meant to further the collective's interests. The establishment of the people "captures the practice of constructing equivalences between dispersed social demands, which are then linked together in a more universalistic discourse" (p. 129)

Within this chain of equivalences, one privileged "nodal point," comes to stand in for the entirety of the demands, which is referred to as an "empty signifier" (Glasze 2007a, 662). The empty signifier, as Laclau (2005, p. 129) stated, "both expresses and constitutes an equivalential chain." Empty signifiers are generally vague "forms of

representation … [that] serve as points of symbolic identification for a range of different groups and subjects with divergent identities and interests" (Griggs and Howarth 2008, p. 128). This antagonistic frontier is established between competing "camps [that] struggle for hegemony" (p. 129), which is the attempt to make all elements fit into a particular discourse . In other words, hegemony describes a discourse that expands to become dominant and even naturalized, while alternative discourses become suppressed or subordinated.

A major strength in this theorization of discourse is that there is no a priori, simplistic assumption of pre-defined identities or subjects. This is a significant divergence from framing theory, which generally assumes an already constituted subject who autonomously forms political sentiment and joins a movement based on whether or not an organization's collective action frame is able to resonate with them. Key framing thinkers Benford and Snow (2000) identify very clearly that "movement actors" are the ones who engage in the signifying work, and in doing so address their frames toward only three, pre-existing groups or political identities: "constituents, antagonists, and bystanders or observers" (p. 613). Discourse theory, on the other hand, assumes that the antagonism is itself constitutive of political subjectivities, and thus discards the pre-existing subject (Laclau 2005; Angus 1998). Moreover, it disposes of the remaining vestiges of economic determinism and totalizing tendencies of Marxist ideology and hegemony. Further, while Laclau (2005; Howarth 2000) continues to use the notion of interpellations, subject positions are multiple and interpellated in different ways. A particular strength in this approach to discourse theory lies in its attention to contingency, and its rejection of both the simplistic assumptions of identity employed by framing and the recourse to economic

determinism found in Marxist approaches. However, the greatest challenge in dealing with Laclau and his approach to discourse theory is that it is difficult to put into practice (Glasze 2007b). Laclau (2005) offered few empirical examples, and the ones he did provide do not always illustrate how to deploy discourse theory. Consequently, while I draw on theoretical concepts from Laclau more specifically, and Foucault more generally, I turn to Howarth (2000) to outline in clearer terms how I put discourse theory to work in this research.

Putting Discourse Theory to Work

As Howarth (2000) has succinctly described, discourse theorists investigate "how, under what conditions, and for what reasons, discourses are constructed, contested and change," and their task is "to describe, understand and explain particular historical events and processes" (p. 131). Meaning in discourse theory is viewed as always contingent and temporary, yet never entirely exhausted, and the spatio-temporal particularities and contingencies of meaning are explicitly presumed (Howarth 2000; Pugh 2005). Discourse theory rejects the generalizability of how challenges to existing discourses are dealt with by more positivistic approaches to contentious politics. Rather, in this framework, "social actors are constantly required to respond uniquely to the dislocatory events which structure and destructure their lives by symbolizing them in different ways" (Griggs and Howarth 2004, 182). That is, while major politico-economic shifts may open up certain windows of opportunity to contentious politics, they do not "determine the character of" (Howarth 2000, p. 132) a given discourse. For Wisconsin HSR, taking this contingency of meaning as a starting point requires investigating how people uniquely responded to

and made sense of the prospect of HSR, rather than imposing an explanation onto the case.

Being anti-positivist, discourse theory is not concerned with determining objective causality. Instead, the task is to "provide novel interpretations of events and practices by elucidating their meaning," and the researcher does so "by analyzing the way in which political forces and social actors construct meanings within incomplete and undecidable social structures" (Howarth 2000, p. 129). This approach can be viewed as generally inspired by Geertzian "thick description" (Geertz 1973; Howarth 2000). Thick description involves not only taking into account observable behaviors, events, or practices, but also considering how they are made meaningful by the context within which they occur, and by the manner in which they are experienced by those involved (Dawson 2010). Thus, the task of my research is "not to generalize across cases but to generalize within them," while the contributions made are not meant to be predictive but at most anticipatory (Geertz 1973). In other words, the process and goal involves "guessing at meanings, assessing the guesses, and drawing explanatory conclusions from the better guesses, [rather than] discovering the Continent of Meaning and mapping out its bodiless landscape" (Geertz 1973, p. 20).

Even Howarth's (2000) outline of putting discourse theory into practice remains rather vague on specific procedures. Part of this can be viewed as a product of the underlying epistemological standpoints behind poststructuralist approaches to discourse theory. That is, there is a resistance toward rigid or straightforward procedures, and instead researchers must adapt concepts of discourse theory to fit the problem with which they are engaged (Howarth 2000; Waitt 2010). What is clear is that discourse theory

demands that the meanings in the debate over Wisconsin HSR must be dealt with on their own terms, and that a much more holistic approach and deeper engagement with the research material is required to excavate meaning from the debate. This task insists that not only are linguistic elements brought into analysis, but that practices, actions, and other social relations must be considered as well in attempting to make sense of meaning in the debate over Wisconsin HSR.

Methodology

Discourse theorists use a range of primary sources of data, including newspaper reporting, official and unofficial documents, television and film, in-depth interviews, and participant observation, which are then translated into textual form, and analyzed using the concepts of discourse theory (Howarth 2000). In this research, I follow this strategy by using Wisconsin-based newspaper reporting, as well as online comments posted to these texts; official documents, polling data, and press releases; in-depth interviews with stakeholders in Wisconsin, Illinois and Minnesota; mobile methods; and participant observation. I discuss these in order.

Qualitative Textual Analysis of Newspaper Texts

I began by doing a preliminary search in the *Milwaukee Journal Sentinel* and the Madison-based newspapers the *Wisconsin State Journal* and the *Capital Times* for articles that mentioned "high-speed rail" and "high speed rail," initially collecting approximately 120 articles from the year 2010. This timeframe covered the main period of debate, as Wisconsin's HSR award was announced on January 28th, 2010, and it was revoked on December 9th, 2010. I collected these in an Office word document. I did an initial reading of these articles, including the comments in the forum sections of the

articles, writing notes into an Excel spreadsheet alongside the article. In addition to the spreadsheet serving as a platform to organize my notes, I used it to record the reference information to each article, as well as information such as the number of online comments posted to the newspaper texts. This spreadsheet became a crucial element as I traced the development of the debate. This preliminary analysis gave me insight into the most active period of debate over high-speed rail, and gave me a sense of the various arguments made. Next, I expanded my search to the beginning of 2009, when the competition was announced for high-speed rail funds from the White House, and into the summer of 2011 in order to ascertain how the issue was reflected upon within newspaper reporting in hindsight, continuing the same process described above.

Having a clearer picture of the debate, I began to include additional newspapers. Having reviewed numerous newspapers from throughout the state, I settled upon 11 Wisconsin-based newspapers/digital news sources that represented a variety of political, ideological, and regional perspectives. I determined the number of newspapers to be used based on the saturation point of the data, or the point at which no new insights were emerging from the texts (Cameron 2010). The final total of texts was 501, which included general reporting; editorials; guest commentaries; and letters to the editors and short "sound-off" opinion pieces submitted by readers. Initially, I used inductive coding to identify the more manifest themes in the debate, or the blatant, visible themes which can be counted (Cope 2010; Dunn 2010; Waitt 2010), and much of this was the basis for Chapter Two of this dissertation. That stage helped me to become familiar with the material, and to begin identifying and interpreting the latent themes, or the implicit beliefs and meanings in the debate (Cope 2010; Hay 2010).

Online posts

I collected hundreds of individual online comments posted to the newspaper texts. The great majority of these reader posts were taken from the *Milwaukee Journal Sentinel*, with a smaller number from the Milwaukee-based *Shepherd Express.* The remainder of the newspapers either offered no such service, or had deleted reader posts. The anonymity involved in posting to forums may lead to more offensive and brash responses compared to traditional letters to the editors; however, it also allows for more people to feel comfortable in expressing their opinions blatantly and honestly than in other, non-anonymous fora (Reader 2012). Consequently, such online comments, while not representative of public perspectives as a whole, are nonetheless useful for "taking the pulse" of the public regarding Wisconsin HSR (Autry and Kelly 2012, p. 278).

Due to the large number of posted comments in response to the 501 texts in the analysis (approximately 20,000), I selected only the first 50 posts from those newspaper texts that had posts enabled (and fewer if the texts themselves had less than 50 posts) in order to collect the initial reactions to each text. This resulted in a final total of 1,705 user posts included in my analysis. I inserted these posts into the central word document, arranging them in chronological order immediately after the text to which they were posted. This ensured that I read and analyzed these posts in the context within which they were composed. In addition, public polling data in Wisconsin were useful to help take the pulse of the public polling data (Public Policy Forum 2010a; 2010b; 2009; St. Norbert College/Wisconsin Public Radio 2010; WPRI 2010)

Official documents

I used official project documents and press releases to ascertain the meanings of HSR according to official sources. The ostensibly neutral documents from transportation authorities provided an important counterpoint for the public and political discourses surrounding HSR (AASHTO 2010; Amtrak 2014a; 2013; FRA 2014; 2009; U.S. DOT 2010; WisDOT 2013; 2011). Further, press releases and project documents issued by the White House (2010a; 2010b; 2010c; 2009) offered a significant source from which to learn about the meanings of HSR according to the Obama administration.

Interviews

I conducted in-depth, semi-structured qualitative interviews with politicians, planners and professional HSR advocates in Wisconsin, Illinois and Minnesota. Major stakeholders in Wisconsin were mostly unavailable for this research. However, the positions of many major stakeholders in Wisconsin, such as Governor Walker, Lieutenant Governor Kleefish, or Milwaukee Mayor Tom Barrett, were well-documented in public interviews and issued press releases (e.g., Barrett 2010, March 6; Friends of Scott Walker 2010; People for Rebecca 2010). In conjunction with my research on the Hoan Bridge (Chapter Four of this dissertation), I conducted interviews with five Milwaukee-area elected officials and transportation planners/engineers, with whom I discussed Wisconsin HSR.

In addition to these Wisconsin interviews, I conducted one interview with a crucial stakeholder for Midwest passenger rail advocacy based in Chicago, and I conducted six interviews in Minneapolis and St. Paul, Minnesota, with officials from the Minnesota DOT, the Ramsey County Regional Railroad Authority, Ramsey County and

Hennepin County governments, the City of Minneapolis, and the Minnesota High-Speed Rail Commission. Minnesota officials had a significant interest in the project, because the HSR route to Chicago needed to go through Wisconsin. However, while there was a wealth of material documenting perspectives in Wisconsin, there was a dearth of attention in the Wisconsin debate to perspectives of those in Minnesota. The interview participants from Minneapolis-St. Paul had a substantial impact on informing this research, as they were able to provide informed outsiders' perspectives on a debate that proved to be otherwise strikingly insular in Wisconsin.

Mobile methods

I used a common method employed by mobilities researchers of being mobile along with my research, which is done with the goal of gaining a sense of the practice and experience of traveling between these places (Büscher and Urry 2009; D'Andrea 2011; Myers 2011; Spiney 2011; Urry 2007; Vannini 2011; Vergunst 2011). This predominantly entailed traveling between key points along the proposed HSR corridor, and taking notes of my experiences along the way. I rode Amtrak's once-daily *Empire Builder* service from Milwaukee to Minneapolis-St. Paul to conduct my fieldwork there. I took notes throughout the trip, from waiting in Milwaukee's Intermodal Station, reflecting on discussions occurring around me in the train's café car, to arriving at night, an hour late, at the lonely Midway Station in an industrial area of St. Paul (which has since been relocated to downtown St. Paul). Experiencing this journey on the way to do in-depth interviews with individuals in Minneapolis-St. Paul was crucial for my ability to competently discuss and understand rail service as it already existed, and to understand what aspects of the journey the proposed HSR service was going to change. I also rode

Amtrak's Hiawatha regional rail service between Milwaukee and Chicago numerous times. Particularly notable on these trips was how often I overheard discussions of what people thought of the regional passenger rail service, including what it meant for their own mobility and for the region. During this period, I also traveled by automobile, bus, and by plane between Minneapolis-St. Paul, Madison, Milwaukee, and Chicago.

Participant observation

My research involved two participant observation experiences. First, I attended a "Save the Train" rally held at the Milwaukee Intermodal Station on November 20th, 2010, which was reported to have drawn 200 people (Daykin 2010, November 20). Shortly after arriving, a HSR advocate approached me, and put a stack of small purple flyers sponsored by the Sierra Club in my hand. Without awaiting a response, she requested in a friendly, yet assertive manner to pass them out, and I complied. Attending and ultimately being involved in the rally allowed me to speak with HSR proponents, and provided an important experience for better understanding the scope of proponents' concerns and arguments. Further, comparing my own experience at the rally with the representations of the event in local newspaper reporting (Daykin 2010, November 20) and with the online posts in response to this event encouraged me to critically reflect on the symbolic significance the event had for different people. HSR opponents did not hold comparable rallies against HSR, nor were there protesters present at the "Save the Train" rally.

Second, I attended the annual membership meeting of the National Association of Railroad Passengers (NARP) that was held in Milwaukee on October 20th, 2012. I attended individual talks given by major stakeholders in the arena of national and Midwest passenger rail:

- Ron Adams, Section Chief of Wisconsin DOT Rails and Harbors

- Laura Kliewer, Director of Midwest Interstate Passenger Rail Commission

- Marc Magliari, Media Relations Manager of Amtrak Government & Corporate Communications, Chicago

- Tom Barrett, Mayor of the City of Milwaukee

- Karen Hedlund, the Deputy Federal Railroad Administrator

- Rick Harnish, director of Midwest High Speed Rail Association

- Daniel Krause, of Californians for High Speed Rail

- Tim Hoeffner, Director of the Office of Rail, Michigan DOT

In addition to taking notes during the talks, I had the opportunity to have conversations with, for example, state representatives from California, directors of major HSR advocacy organizations, and a program director from the national office of NARP during breaks, in the hallways, and at lunch. Having acquired the appropriate IRB approval to include information from these brief discussions in my research, this membership meeting provided me with significant insights into the state of passenger rail and passenger rail advocacy in the U.S and the Midwest.

Bringing it all together

Having assembled my primary data sources, the next step was to bring them together. I began by sketching out the core themes identified in the qualitative content analysis of newspaper texts in a word document. This functioned as the scaffolding that I used to attempt to reconstruct the discourses of Wisconsin HSR. From here, in an iterative process, I considered the insights gained from each of these additional sources of primary data in relation to the core themes from the qualitative content analysis. In the process, I asked: how do various stakeholders make sense of HSR? And how are the meanings of HSR made in relation to other phenomena? Also, relating this to my

discourse theory framework, I asked: what are the democratic demands being made? How are they being linked through equivalential chains? And how are competing camps being constituted through this process? Finally, I considered the discursive silences within the Wisconsin HSR debate. Silences can be equally significant as that which is said, yet they are more difficult to identify (Rose 2001; Waitt 2010). Identifying silences required a longer-term and more careful engagement with the broader social and political contexts of Wisconsin HSR. Consequently, the points that I drew on to attempt to identify silences are ultimately too many to count. However, the Minnesota and Illinois interviews, as well as my discussions with individuals at the NARP meeting, were especially crucial. As informed outsiders, they helped to provide contours to the discourses of HSR in Wisconsin by identifying points of the debate that did not make sense to them, but which made sense within Wisconsin, and issues that they felt were ignored by much of the Wisconsin debate.

Discourses of Wisconsin HSR

In this section, I present the results of my discourse analysis thematically and in an approximately chronological order. I begin by discussing a progressive discourse of HSR as moving forward. Then, I discuss conservative resistance to HSR as taking a stand, and how opponents to HSR discursively othered passenger rail through essentialist discourses of automobility, revealing a significant discursive silence. I then discuss the progressive response to opponents' resistance to HSR, after which I describe significant actions taken by both proponents and opponents. Finally, I discuss the death of HSR, further outlining the contours of the discourses of Wisconsin HSR.

Moving Forward with High-Speed Rail

The announcement of funding for a national high-speed rail network was met with great fanfare by those in attendance at a White House press conference (White House 2009). It was here that President Obama asked Americans to:

> [i]magine boarding a train in the center of a city. No racing to an airport and across a terminal, no delays, no sitting on the tarmac, no lost luggage, no taking off your shoes. [Laughter in audience] Imagine whisking through towns at speeds over 100 miles an hour, walking only a few steps to public transportation, and ending up just blocks from your destination. Imagine what a great project that would be to rebuild America. (White House 2009, n.p.)

The secretary of the U.S. Department of Transportation (DOT) Ray LaHood joined in President Obama's enthusiasm, and noted that HSR was part of a "down payment on the economy for tomorrow, the economy that's going to drive us in the 21st century in a way that the other – the highway system drove us in the mid-20th century" (White House 2009, n.p.). Ray LaHood continued, noting that:

> With [a] high-speed rail system, we're going to be able to pull people off the road, lowering our dependence on foreign oil, lowering the bill for our gas in our gas tanks. We're going to loosen the congestion that also has [a] great impact on productivity, I might add, the people sitting at stop lights right now in overcrowded streets and cities. We're also going to deal with the suffocation that's taking place in our major metropolitan areas as a consequence of that congestion. And we're going to significantly lessen the damage to our planet. This is a giant environmental down payment. (White House 2009)

And as the press release for this "vision for high-speed rail" stated: "The inclusion of high speed rail in the Recovery Act was one of many symbols of the new vision for America and its economy that guided the plan" (White House 2009, n.p.). As the administration's statements make clear, HSR fit into the progressive utopian vision of a multimodal, clean energy future in which Americans had meaningful, dependable employment. HSR fit within the progressive goal of emerging from the recession through

building a green economy. The idea of HSR as representative of a larger progressive utopian vision was embedded in the project from its inception.

Democrats and political progressives in Wisconsin communicated this vision for the state, and frequently used the mobile metaphor of "moving forward" in order to express how they viewed HSR fitting into a progressive future for Wisconsin. As Madison Mayor Dave Cieslewicz (2010, November 13) stated:

> high-speed rail isn't just about jobs now and for the next three years, and it's not just about helping one part of the state. It's about literally putting Wisconsin on the map as a forward-looking state that embraces new technology and connectivity.

On a number of occasions, as in President Obama's statement above, Americans were asked to join in envisioning this progressive future. Weiland (2010, February 19), in an article in *Milwaukee Biztimes*, described scenes on the HSR line between Madison and Chicago in the year 2020: a Madison businesswoman was headed to a meeting with investment bankers in downtown Milwaukee; a Madison-based lobbyist made his way to Milwaukee's airport for a flight to Washington D.C.; and a Milwaukee-based attorney was traveling to the Capitol in Madison to meet with legislators. It was a scene of an efficient and convenient, ultra-modern mode of transport facilitating Wisconsin's economic connectedness. The article and graphic (see figure 9) presented HSR, among other planned transportation projects in Wisconsin, as a "Track to the Future" (Weiland 2010, February 19).

Figure 9 – High-Speed Rail as a progressive vision for Wisconsin's future – graphic reads: "Track to the Future: Wisconsin is on the cusp of mass transit overhaul" (Source: Weiland 2010, February 19, n.p.)

Even before the announcement that Wisconsin would receive its HSR funding, a

Milwaukee Journal Sentinel columnist wrote a particularly illustrative article titled

"Future is now for high-speed rail" about how HSR fit into this progressive vision (Kane

2009, March 7):

> The more hopeful of us dream of a specific future:
>
> You land at Mitchell International Airport and get whisked off for a brief rail ride to downtown Milwaukee or Racine or Kenosha. From either location, you can connect with a high-speed rail route to Madison. If you live in Milwaukee and decide to seek work in Waukesha County but don't have a car, there's a pretty efficient rail system leaving multiple times a day on round trips to outlying areas.
>
> In this vision of the future, southeastern Wisconsin becomes connected in ways most residents have never imagined. Suddenly, we're all benefiting from the experience.

Kane (2009, March 7, n.p.) later concludes by noting:

> It's time to get over the idea that spending billions today on a bold new world will bankrupt our grandchildren. What will probably annoy our descendents [sic] more is if due to our lack of foresight they still have to fight bumper-to-bumper traffic decades from now, while the rest of the world is being whisked around on a super-modern transportation system.

> Chances are flying cars are still pretty far away. But a quicker and more efficient way of getting around can be just around the corner if enough people open their minds to the real future.

Ultimately, HSR as signifying progress was initially set out by the Obama Administration in the official announcement of the High-Speed Rail Initiative (White House 2009). Indeed, the use of the term "high-speed" rail itself expressed the need to fit the ARRA spending on rail into a larger progressive vision that impacts everything, from the economy and employment to energy, the environment, and the efficiency of travel in a country slowly recognizing the limits of road-building its way out of automobile congestion. However, a seeming contradiction was present within this official discourse about HSR: according to international standards, most of the upgrades to the national passenger rail network in the U.S. in the short and even medium-term would not have been true high-speed rail (UIC 2013; Johnson 2012; Levinson 2012; Minn 2012b). The Wisconsin project, along with much of the national vision, would have constituted conventional passenger rail service in countries such as France, Germany, and Japan. Nonetheless, the arguably misleading language of novel and futuristic "high-speed" technology fit a vision of high-speed trains on elevated tracks "whisking" (e.g. Kane 2009, March 7; White House 2009) over the oblivious cows of Wisconsin's dairy farms and connecting major urban centers (personal interview, stakeholder in Midwest passenger rail advocacy). Also, it served as a sort of pre-emptive defense against entrenched narratives of trains as antiquated, obsolete and inefficient technology.

However, from the perspective of one key stakeholder in Midwest passenger rail advocacy, the misleading language of "high-speed" helped to set the Wisconsin project up for failure:

> What they were talking about wasn't high-speed rail. That was a key part of why the project failed, because they sold it as something that didn't exist. … First of all, people want high-speed rail. They don't want to pay the cost that comes with getting high-speed rail. The people involved fooled themselves into thinking they were doing high-speed rail even though they weren't. … And so, really what it was, was extending a very successful Amtrak service to Madison. I think that if they had started back in [1993], when they started working on this, and made the realization they weren't going to work on [true] high-speed rail, just said we want to extend Amtrak service, it would have been a very different circumstance.

Further, this individual argued that this discursive construction of the Wisconsin project as high-speed undermined support from key HSR industry and institutional stakeholders that were interested in establishing true HSR in the U.S., and felt that they were being lied to by major Democratic elected officials from President Obama to the region's governors:

> …so when the President came on, [the message was] *President Obama wants high-speed rail*. [Supporters of true HSR] who had been sitting on the sidelines were suddenly involved and saying, "but they're lying to us. This Madison thing, that's not high-speed rail. I don't support that project"

In the end, whether the Wisconsin HSR project was true high-speed or not, the representation of it as such ultimately impacted the way that passenger rail proponents thought and argued about it. While progressives generally rallied around Wisconsin HSR, touting it as a major step forward, the language of high speed undermined support from some advocates of true HSR.

Taking a Stand Against Government Waste and Overreach

For Republicans and political conservatives in Wisconsin, the crux of the debate was presented as whether the state of Wisconsin could afford to subsidize the

Milwaukee-Madison segment, originally estimated at approximately $7.5 million annually (WisDOT 2009). But, it is also clear that HSR meant much more to conservatives in Wisconsin than a concern over the cost of the subsidy. First, it is necessary to briefly address the fiscal choices facing Wisconsin according to public knowledge at the time as evidenced by newspaper reporting. On the one hand, the $7.5 million subsidy to operate the Milwaukee-Madison segment would have represented a small amount, approximately 0.2%, of the Wisconsin's approximately $3.25 billion annual transportation budget (WisDOT 2011d, author calculation).

Over the course of the debate the estimated operational subsidy was revised due to a change in projected ridership figures and the ability to use federal funds to cover the state's portion of the subsidy. This would have lowered the cost for the state of Wisconsin to operate the train to anywhere from $4.7 million to $470,000 (*Milwaukee Journal Sentinel* 2010, November 5; McIlheran 2010, November 13; Sandler 2010, November 8; Sandler and Johnson 2010, November 15; Sandler and Stein 2010, November 4; 2010, November 12; Stein and Held 2010, Nov 5). However, it was also reported that rejecting the HSR funds carried the risk of costing Wisconsin taxpayers approximately $100 million in repayments to federal authorities in contract cancellation fees, and in necessary maintenance for existing infrastructure that would have otherwise been covered with the HSR funds (e.g. Sandler 2010, November 18; 2010, November 1; 2010, July 29). Consequently, based on these figures, the cost of halting the project would have been more than the cost of at least 13 years of running the Milwaukee–Madison HSR segment at the original expected state subsidy of $7.5 million, more than 21 years with a $4.7 million state subsidy, or considerably longer if 90% of the state

subsidy could have been offset by federal funds. As such, the repayment and loss of the approximately $100 million posed a more serious fiscal threat to Wisconsin taxpayers than a state subsidy to the Milwaukee-Madison segment of HSR.

All six of those I interviewed in Minnesota made clear that, from their perspective, Wisconsin's rejection of HSR funding made no economic sense, and they all expressed a sense of bewilderment about why the HSR project became controversial in the first place. One local elected official described a sense of initial disbelief that Wisconsin would refuse to accept the funds. Another stakeholder involved in Ramsey County passenger rail stated in a perplexed tone, "here's a guy [Scott Walker] touting jobs," and "if I had been governor, I would have asked myself if that was the smartest thing to do for the people of my state. … [There was] a bit of head-scratching [about] what [Scott Walker was] taking issue with." Meanwhile, a Minnesota DOT official stated that there was no compelling economic reason given for ending the project.

Although conservative Wisconsin politicians and commentators did frequently argue that the state could not afford the project (Friends of Scott Walker 2010; Davis 2010, April 4; Spicuzza 2010, December 10; Walker 2010, March 6; Zipperer 2010, April 7), at least as important was that they identified their resistance to Wisconsin HSR as more generally symbolic of "taking a stand" against fiscal irresponsibility (Lindquist 2010, November 15 p. 2A). For instance, incoming state Representative Kathy Bernier noted that while she "wouldn't go so far as to call [HSR] a boondoggle," she would caution that she had "seen this attitude that if federal money comes in, let's spend it, whether or not it is prudent to do so" (quoted in Lindquist 2010, November 15, p. 2A). In a similar vein, a conservative columnist for the *Milwaukee Journal Sentinel,* Patrick

McIlheran (2010, November 13), argued that even if Wisconsin's award were to be redirected to another state, such that Wisconsin taxpayers would be effectively subsidizing another state's HSR: "It is possible … that if Wisconsin refuses to be wooed by free federal money, we could be the wrench that halts the railroad loot-go-round. That would be a remarkable service to a nation with an empty treasury". Dave Ross (2010, September 9), Republican candidate for Lieutenant Governor and Mayor of Superior, Wisconsin, wrote: "I have NEVER supported high-speed rail. Let me be clear: The high-speed rail project is nothing but a liberal 'feel-good' project that will ultimately end up costing Wisconsin taxpayers millions every year until it's derailed" (Ross 2010, September 9). And Mark Neumann, during his campaign for Republican-candidacy for governor referred to HSR as "an Obama wasteful spending boondoggle that I will stop immediately in its tracks as governor." (Neumann quoted in Murphy 2010, August 19).

Scott Walker himself explicitly identified HSR as "symboliz[ing] for many people runaway government spending" (Merrick 2010, October 28; see also Gilbert 2010, November 17; Holifield and Zupan 2013; Sandler 2010, December 9). The symbolism of this resistance for Republican politicians was not lost upon the media or general public. For instance, one journalist noted that "Republican Governor-elect Scott Walker made his opposition to high-speed rail a centerpiece of his 2010 campaign, portraying it as a symbol of federal waste and overspending." (Gilbert 2010, November 17). And, referring to the withdrawal of HSR funds from Wisconsin, another journalist wrote that "[i]n a meeting with reporters in Waukesha, Walker called the decision a 'victory' because he sees the rail line as a symbol of excessive government spending." Sandler 2010, December 9).

The Minnesota officials interviewed for this research all described the debate in terms of a symbolically-laden political struggle, with Scott Walker identified as the key figurehead among conservatives in Wisconsin who were standing up to the federal government. A Minnesota DOT official argued that the debate had been purely political, and in particular, that conservative resistance to the project really had been about opposing a high-profile Obama administration project. An individual involved in Hennepin County transportation planning, when asked about the debate in Wisconsin, immediately stated that no debate on the merits of HSR had actually taken place. Instead, the individual argued, it was a political battle to reject a high-profile project that President Obama had proposed. In an interview with another local elected official for Hennepin County, a nearly identical exchange took place. When asked about the debate, the person immediately turned to discussing its politicization, and emphasized the role of Scott Walker. The individual stated that it was not just a general rejection of government spending, but it was about taking a symbolic stand against the federal government. Another local elected official and member of the Minnesota High Speed Rail Commission argued that Scott Walker had intended his resistance to HSR "to be a watershed moment" about everything that was going on in the country. It was to be his "Alamo moment," as the individual argued, in which he drew a line in the sand to engage in a standoff with the federal government.

The populist element of this resistance was also highly significant. During his campaign, Scott Walker identified his resistance to HSR explicitly as: "we'll stop this train …working together, we can help put the government back on the side of the people again" (Friends of Scott Walker 2010, n.p.). In his advertisement campaign, he invoked

the voice of the people of Wisconsin, while responding to U.S. Secretary of Transportation Ray LaHood's announcement to the press that "High-speed rail is coming to Wisconsin. There's no stopping it" (see e.g. WISN Milwaukee 2010) by re-appropriating President Obama's earlier "yes we can!" presidential campaign slogan (Friends of Scott Walker 2010). This helped to underscore the notion that Walker was siding with the people of Wisconsin to resist an unpopular, Obama-led, federal government project.

Jessica McBride, conservative columnist for the *Waukesha Freeman,*spelled out what HSR meant to conservatives in perhaps the clearest terms. Reflecting on an August 2010 Republican primary debate between Scott Walker and Mark Neumann, she remarked that the candidates:

> [have] both found a populist issue that is firing up at least southeastern Wisconsin voters, much like the illegal immigration issue did before and much like the water issue played out here. High-speed rail. It's become a symbol of Democratic misplaced priorities and bloated spending in a time of recession – a boondoggle and bogeyman. It's a good way to tie the state Democrats to Obama's stimulus spending. (McBride 2010, August 28)

Several weeks later, shortly after Scott Walker won the election, McBride softened somewhat on her position toward HSR due to the possibility that, fiscally speaking, Wisconsin would have more to lose than gain by halting the project:

> I say drop the fake threats, and let's have a more intellectual discussion of this thing. I know, I know: We're all supposed to say in unison, "Train bad." The train became the bogeyman, the easy-to-explain symbolism of President Obama's stimulus spending run amok. I think it's more complicated. There are some persuasive fiscal arguments that Walker should reconsider his opposition [to HSR]. Yeah, I know that's anathema to some people right now. But let's deal with facts. (McBride 2010, November 13, p. 8A)

As if to substantiate McBride's argument that it was "anathema to some people" to consider the possibility that there might be fiscal arguments that would favor continuing

the HSR project, a reader of the *Waukesha Freeman* wrote a "sound-off" piece arguing

that:

> Jessica McBride is starting to look more and more like a RINO [Republican In Name Only]. On social policy, she's a RINO. On fiscal policy, she's a RINO. In her latest column regarding the train, she takes to reminding us that she's a state worker [as an employee of the University of Wisconsin-Milwaukee]. She doesn't have to remind me of her leanings. I know a RINO when I can see one. My real question is, doesn't Waukesha County deserve a true conservative columnist? A county as important as this to the Republican Party deserves better than Jessica McBride. (Waukesha Freeman 2010, November 17, p. 8A)

What is clear is that the resistance to HSR among conservative political leaders in

Wisconsin cannot be taken at face value as a simple and straightforward concern about

the affordability of one particular subsidy. Rather, it must also be understood in terms of

its symbolism – as a principled stand against what conservatives viewed as government

waste and overreach. From this perspective, the fiscal responsibility that Wisconsin

would be forced to take upon itself in order to operate HSR was taken up as an empty

signifier for conservative demands in the debate. HSR, to borrow McBride's (2010,

November 13) words, "became the bogeyman, the easy-to-explain symbolism of

President Obama's stimulus spending run amok" (p. 8A). It came to stand in for

numerous individual demands made by conservative Wisconsinites, such as claims that

taxes and unemployment were too high; that many of the state's roads and highways were

in poor condition; and that undersirable and "un-American" societal goals were being

pushed upon an unwilling populous by the Obama administration. Thus a chain of

equivalence was drawn between these various demands that established an antagonistic

frontier between HSR opponents as the real people of Wisconsin and an overreaching,

wasteful, misguided federal government, with President Obama at the helm. As the

discourse of HSR-as-threat became established among political conservatives, it became

increasingly impossible to consider even a begrudging acceptance of moving forward with the project. It is this position that McBride cites, and it is for this reason that she can be outcast from the real people of Wisconsin. To even consider allowing the Wisconsin HSR project to continue came to make no logical sense within the discourse.

Figure 10 – Amtrak Locomotive 182 - the "Governor Tommy G. Thompson" (Source: Carter 2005, n.p.)

The growing unthinkability of supporting Wisconsin HSR as a conservative Republican is particularly evidenced by former Republican Governor of Wisconsin Tommy Thompson's position in the debate. Tommy Thompson, the longest serving governor in the state's history, was the Chairman of Amtrak during his governorship, served two terms on the Amtrak Board of Governors while high-speed rail was under consideration, and, due to his support of HSR, an Amtrak locomotive was named after him (McNally 2010, February 2; see figure 10). In 1999, the National Association of Railroad Passengers awarded Governor Thompson its "Golden Spike Award" – given to

"celebrities, elected officials, and others who have made important contributions to the passenger rail cause" – for "[e]ncouraging bi-partisan support for nationwide intercity passenger rail" (NARP 2013). Furthermore, former Governor Thompson was personally credited for "start[ing] the push for the Milwaukee-to-Madison line in the late 1990s" (Sandler 2010, February 28). Yet, as Tommy Thompson was campaigning for a U.S. Senate seat in Wisconsin as a Republican, he was ultimately forced to disavow his support for the project, as conservatives began to view HSR as "anathema" to their interests (see figure 11) (McBride 2010, November 13, p. 8A).

Figure 11 – Political cartoon portraying Tommy Thompson's lack of outspoken support for HSR in the 2010 campaign season (Source: Hands 2010, August 29, n.p.)

Wisconsin HSR and Discourses of Automobility

Alongside HSR as an empty signifier for either a progressive vision for Wisconsin or a symbol of federal government overreach and waste, the meanings of automobility played a crucial role in this debate. That is, it mattered that this debate was about passenger rail, and not about an arbitrary public works project; and it certainly mattered that it was not about the construction of a new Wisconsin highway. Conservatives in particular drew on an essentialist discourse of automobility, or, to what I refer as an *autonormative discourse*. This autonormative discourse involved a number of clearly expressed themes and silences. The most prominent included how the costs and necessity of HSR received substantially greater scrutiny than major highway projects in the state; how trains were portrayed as a frivolous and impractical mode of transportation, and their proponents as immature and child-like; and how trains were portrayed as an obsolete technology.

Unequal level of scrutiny

In terms of spending (an important concern expressed by conservatives), the HSR project was scrutinized in a way that highway projects were not. Consequently, this represents a significant discursive silence in the debate over Wisconsin HSR. In particular, this unequal level of scrutiny can be best demonstrated through the relative silence over the reconstruction of the Zoo Interchange at the western edge of Milwaukee County, which was a high-profile "freeway megaproject" (WisDOT 2011f) in the planning stage at the time of the debate over HSR. At a time when it was already known that Governor Doyle was seeking to obtain ARRA funding for Wisconsin HSR and attract Spanish train-manufacturer Talgo to the state (Gilbert 2009, February 23; Pitsch

2009, January 1; Sandler 2009, April 13), the *Milwaukee Journal Sentinel* uncritically reported that:

> Rebuilding the Zoo Interchange in Milwaukee could cost as much as $2.3 billion, making it the most expensive road project in state history and almost three times as costly as rebuilding the Marquette Interchange. The Marquette Interchange in the heart of Milwaukee was completed last year for about $800 million. It was the most expensive road project in the state when it started in 2004, but it has since been surpassed by the I-94 project, which in turn is likely to be put in second place by the Zoo Interchange. (Marley and Held 2009, May 28)

In this case, the unprecedented scale of the project and its necessity were not called into question, even as the journalists reported that the Zoo Interchange project would require up to 40 homes and businesses to be razed to make room for expansion of the interchange (Marley and Held 2009, May 28).

The cost of the project (approximately three times the cost to construct the Wisconsin HSR project as planned) was also not an especially controversial issue. Instead, "[o]fficials in the transportation industry" were said to have "expected the project to be expensive," and the executive director of the Wisconsin Transportation Builders Association was quoted as having not been "shocked by that dollar figure" (Marley and Held 2009, May 28). On the contrary, Governor Doyle was criticized for his delay in starting work on the Zoo Interchange, which he argued was due to his concerns over how the state would pay for both it and the expansion of Interstate 94 at the same time (Marley and Held 2009, May 28). The delay "frustrated suburban [Republican] lawmakers," who were reportedly "undeterred by the hefty price tag" but instead "called for a sooner rather than later start to the reconstruction" (Marley and Held 2009, May 28). As Republican state Senator Ted Kanavas was quoted: "It's ill-suited to serve a

modern economy right now … It needs to be re-engineered and expanded, and it needs to be done as quickly as we can" (in Marley and Held 2009, May 28).

Senator Kanavas' statement is particularly illustrative of the unequal level of scrutiny that HSR received. In August of that year, Senator Kanavas wrote a critique of HSR and other proposals for rail transport in Wisconsin on his personal blog in a post titled "When Did We Vote 'YES' on Trains?" (Kanavas 2009, August 4). Among the points argued, Senator Kanavas spoke of HSR in political-ideological terms, as a mode of frivolous transport suited to elitist progressive ends, and implied dirty politicking in its development:

> While the rest of the people in the state were distracted with real world problems like trying to keep their jobs and paying bills, the liberal elites like Governor Doyle and Milwaukee Mayor Tom Barrett were off cutting deals on trains. … [N]ow taxpayers have to pay for track upgrades to make the new cars truly "high speed". …

He argued the economic threat that a commitment to passenger rail entailed:

> That's the thing with trains, the start up costs are just the beginning. Cars, new tracks, track upgrades, maintenance, future route expansions all cost money, and lots of it. … If any federal money does make its way here, it will never cover the long term costs of the project. Wisconsin taxpayers will be paying the bills in perpetuity.

Pointing out that "[t]hat's the thing with trains" suggests that this is somehow unique to passenger rail. Yet, if one were to replace "trains" with "cars," and "track" with "road," the statement would appear equally logical in representing the economic commitment that highways entail. A rhetorical question he asked makes clear the double-standard that existed:

> For a state that raises taxes year after year and is carrying over a $2 billion deficit into the next budget, I have one question: Should we be spending money on things that could end up costing us hundreds of millions of dollars down the line? If we can't afford to pay for transportation priorities, like reconstructing the Zoo Interchange, can we afford to take on another huge financial burden?

And, while the Zoo Interchange was identified as a self-evident priority even though it carried far more weight in costing Wisconsin taxpayers money than HSR would have, passenger rail is something that called for serious scrutiny over whether it "will give us a solid return on our investment" because, he concluded: "We can't afford to get it wrong. The stakes are too high" (Kanavas 2009, August 4). This reflects an expectation that passenger rail is to be operated as a consumer-driven, privatized mode of transportation, while the same demand is not made of automobile infrastructure. This exemplifies a conservative political ideology of government as the guarantor of automobility, while other modes of mobility pose threats to automobility's funding (Henderson 2013a).

While there was critique of the Zoo Interchange project, it paled in comparison to that which the HSR project received at the time. A local public transit-advocate and environmentalist (Dagelen, D. 2009, August 22) wrote an editorial in the *Milwaukee Journal Sentinel* critiquing the expansion of the Zoo Interchange, and instead called for a comprehensive mass transit alternative. Four Milwaukee Aldermen also publicly critiqued the project, particularly in regard to the properties to be removed for the Zoo Interchange expansion (Held 2009, May 28). These exceptions seem to prove the rule, as aside from these critiques, little was said in local newspaper reporting that presented the project in anything but an unproblematic light. Moreover, even where the Zoo Interchange became a point of controversy between the leading candidates for governor in the spring of 2010, in involved Milwaukee County Executive Scott Walker and Milwaukee Mayor Tom Barrett accusing each other of delaying the work on the Zoo Interchange via a series of advertisements sponsored on the Google search engine (Durhams 2010, March 27). Consequently, throughout the period of debate over HSR, as

illustrated by the Zoo Interchange project, major highway projects remained largely unproblematic, even as HSR was deeply scrutinized.

Choo-choos: frivolous transportation, childish proponents

Another manner in which resistance to the project was expressed through an autonormative discourse was the way that notions of legitimacy, deviance, and normativity were discussed regarding passenger rail and its proponents. Throughout the debate, opponents often referred to the HSR trains as "choo-choos," the children's word for trains (e.g. BettyV 2010, July 29; Buckskin 2010, August 16; corrina252 2010, February 3; David 2010, February 3; Fat Cat 2010, August 16; *Milwaukee Journal Sentinel* 2009, March 5; WI_Calvin 2010, March 7). For example, as one commenter responded to a post from an HSR proponent:

> @Atomic Pop: So very sad to be you. Apparently daddy didn't take you on the choo-choo ride at the carnival as a child. Scott Walker will be just fine this next 8 years in office. Cry a river. (NigelTufnel 2010, November 15)

Directing their statement at Mayor of Milwaukee and Democratic gubernatorial candidate Tom Barrett, another commenter asserted:

> Yes Tom, I would also rather pass the insane amount of money that it will cost the state for your little choo-choo [that] nobody will ride to another state as well. (Buckskin 2010, August 16)

In the comments section to an op-ed in the *Shepherd Express* (McNally 2010, February 2), one user commented:

> I am shocked that a liberal deadbeat like McNally supports this boondoggle! To think that this choo choo train is going to create a "windfall of jobs and development" is delusional. This would be comical if it wasn't so serious. I wish you leftists [sic] clowns would at least challenge my astute political intellect but with views like McNally's I bury you all. Thanks for the laughs though! (corrina252 2010, February 3)

Another commenter argued:

> We've got bridges falling apart and what do we do, we use the "stimulus" money, which is really OUR money, to build a stupid choo choo. … I hope you people who voted for Doyle are happy. You were so happy with him, you went and voted for Obama so he could give your money away to build choo choos. (BettyV 2010, July 29)

As these examples demonstrate, the term choo-choo was used to disparage HSR proponents as child-like—that is, having unreasonable, silly demands for a train, which are based more on whim and impulse than reflection and genuine need. Meanwhile, the term delegitimized HSR as a mode of transportation, with many of the statements directly juxtaposing the self-evident need for automobile infrastructure against the HSR project as a frivolous, expensive toy. Furthermore, the stress placed on whose money (e.g. "OUR money" and "[Obama] could give your money away") would be spent on the project is also significant, as it makes the project appear in even more egregious terms as an assault on responsible infrastructure development and use of public funds. Finally, these statements further demonstrate the antagonistic frontier between the rightful people of Wisconsin, or those who resist the project, and those entities that are directly blamed for pursuing HSR: Democrats and political progressives, generally, but President Obama, Governor Doyle, and Milwaukee Mayor Tom Barrett specifically.

HSR as Deviant and a Threat to the Motoring Status Quo

Aside from the notion of HSR as a choo-choo, a number of other claims were made that reveal an autonormative discourse. First, claims were made regarding who would ride the trains. In response to an op-ed piece written by Democratic Milwaukee Mayor and later gubernatorial candidate Tom Barrett (2010, March 6), an individual commented in a post:

> …The taxpayers will be killed with subsidies (MORE TAXES) on this boondoggle. The only people that will be served by this train are the elite left who want to feel good about themselves about taking a train. Most

> people of this state, especially those out of the Milwaukee/Madison area are not going to want to fund Doyle/Barrett's choo choo train for rich people. It is a horrible solution to a non-existent problem. (WI_Calvin 2010, March 7)

Such comments suggesting an elitist ridership on a train that would be a drain on taxpayer money were common, but others demonstrated a very different perspective on potential HSR passengers:

> Why would you want to make it easier for inner city thugs to get to the suburbs? The bus system is bad enough; keep those people in their box. (Whitefish Bay Mike 2010, January 28)

While some viewed HSR as a luxury mode of transportation serving only the wealthy, progressive elite, others viewed HSR as providing additional mobility options for undesirable, racialized communities that would pose a threat to the suburban idyll. However, the commonality was that HSR passengers were identified by opponents as deviant from the motoring norm of daily American life. Throughout the debate, it became inconceivable for many opponents to imagine that "normal" people would choose to ride the train, which explains one of the most common claims made by opponents regarding ridership: that "no one" would ride the trains (e.g. Albanese 2010, February 20; Buckskin 2010, August 16; Davis 2010, April 4; Lindquist 2010, November 15; *Milwaukee Business Journal* 2010, November 19; Stingl 2010, November 9; Reller 2010, March 9).

This othering of potential riders also underlines the view that HSR presented a clear threat to the motoring American status quo, and it revealed an anti-urban sentiment among HSR opponents. In an interview with a key Midwest passenger rail advocate, the individual remarked upon this discursive construction of Wisconsin as being a place for the automobile, and not high-speed trains:

> [I opened] up my iPad and there was Scott Walker [in a television campaign advertisement] with a *brilliant,* I mean, you gotta *love* whoever came up with that ad that he did, standing there on that pot-holed street.

> You know, in the standard [suburban] you-don't-dare-walk-in-community-because-you'll-get-killed-by-a-car, with the potholes there – "*This* is what Wisconsin's about. It's not about high-speed rail." That was brilliant.

The individual, continued, tying this threat to the suburban way of life together with Scott Walker's resistance toward HSR as taking a stand against a federal government project:

> So you've got a president who has taken on a couple of issues, and whenever you're in the opposition party, you're against what the president is for. It's worse now than it was before … So you've got this issue that's a high public issue. You've got people freaked out about government spending … and so, if you grew up in one of those neighborhoods he was standing in, and you're scared of places you can walk and take the train, then you would think that spending money on high-speed rail was a waste of money. "It's clearly government spending, so I'm going to vote for him because he's standing up to federal waste." I think that was a genius campaign.

This discursive construction of HSR as moving Wisconsin toward a progressive urbanity constituted a threat to the values of the motoring, non-urban American status quo, as was reflected in online posts to articles about HSR:

> It doesn't make any sense if the motives for the train are to spread Milwaukee's social utopia [throughout] WI in order to fix Milwaukee's problems (not a social utopia).

> Is Milwaukee a social utopia that we should spread to the rest of WI or are we (the rest of the state/country) trying to help create jobs and business that their false social utopia chased away[?]

> Take a look at Milwaukee grades, unemployment, crime,... where they are not averaged in with the rest of the states or adjoining counties. It is not a social utopia. (John Smith 2010, January 28)

Obsolescence

A further element of the autonormative discourse of the debate was the obsolescence of rail technology as a whole juxtaposed with a self-evidently modern system of automobility. For example, in an early instance of this notion of obsolescence, Bill Richardson, the media coordinator for the Dane County Republican Party:

called the rail initiative a step backward for transportation in the state. Passenger rail has been highly subsidized by tax dollars and remains inefficient for most, he said. "Trains are a 19th century wonder," Richardson said. "To offer a train in the 21st century is like offering the public a telegraph instead of an iPhone." (Held and Daykin 2010, January 28)

Here, passenger rail is explicitly described as being an outdated, antiquated technology, while the mention of being "highly subsidized" puts into question the necessity of the project, and thereby views it again as being essentially deviant to the norm of automobile infrastructure, which is often erroneously thought to be not highly subsidized, but funded by user-fees. Similarly, another HSR opponent derided the project for being antiquated, arguing that HSR: "[w]ould have been a great idea in 1910. So last millenium" (Steve 2010, January 28). Another individual emphasized both the technological obsolescence and frivolousness of the project in a post:

Dont over complicate this issue. Wisconsin is broke. This is 1920's technology. Very Very Very few people will use it. It will cost many many times what the projections are. Lets get our fiscal house in order before looking at useless pet projects. (timmyj3 2010, March 1)

A further commenter compared Mayor Barrett's (2010, March 6) and then-Milwaukee County Executive Scott Walker's (2010, March 6) op-ed articles on proposed HSR service for the state, and critiqued HSR as an outdated technology presented in a new and shiny package:

Just read Barrett's and Walker's articles. Barrett's article has a lot of promises about economic prosperity. His op-ed is a feel-good piece about getting a last-century mode of transportation wrapped up in glittery paper and a bright ribbon. Walker's piece is about what we've learned thus far from high speed rail around the country, what they cost, what jobs they produce, and what sort of economic prosperity it brings. And I must say, Walker's argument is much more compelling than Barrett's. (Aaron Rodriquez 2010, March 8)

Finally, another commenter described expansion of HSR in terms of technological regression:

> Since these dolts love early 20th century technology, do these same dolts want the US mail to be delivered by Pony Express again ?
>
> Outlaw email and BRING BACK THE PONY EXPRESS. … (sebanzacty 2010, November 15)

Many opponents of HSR viewed the notion of expanding passenger rail as the antithesis of modern transportation. The corollary to these arguments is that automobiles are inherently modern, efficient, and that they are deserving of public investment. That is, the pinnacle of the technological evolution of transportation has already been achieved in the form of the automobile.

Moving Backward

The notion of taking a step backwards was certainly not unique to opponents. Indeed, obsolescence and backwardness were just as important for proponents of HSR, though in a very different way. For HSR proponents, quite contrary to the conservative understanding of trains as backward and antiquated, HSR was "a key piece of 21st century infrastructure" (Zepnick 2010, November 16). Consequently, proponents understood resistance to HSR as an antiquated, backward-thinking, short-sighted response that did not take seriously how the economy, geopolitical and environmental issues, and social mores were changing. As one commenter posted in response to a claim that the country was admiring Wisconsin's rejection of the HSR funds:

> No - America is not admiring us. …
>
> What's to admire? Shortsightedness, living in the past, our new unimaginative beancounting bureaucrat Governor who is NOT a leader?
>
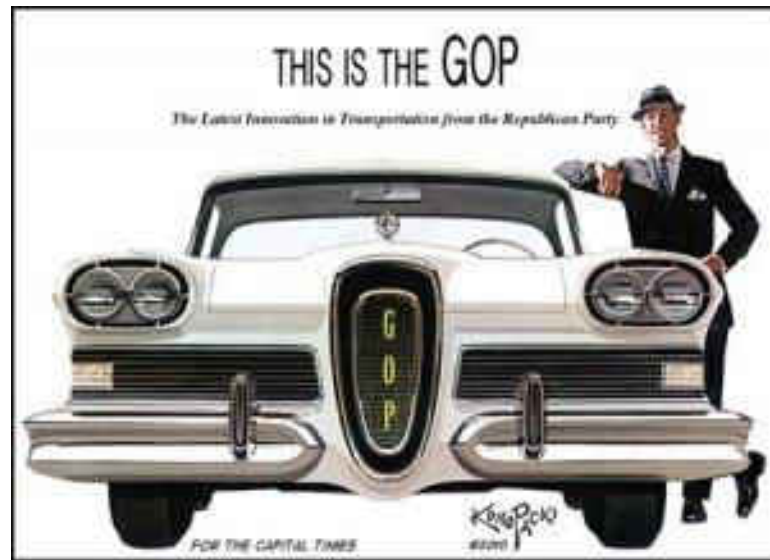> No, I rather think America is laughing. (Marston 2010, November 17).

Figure 12 – Progressive portrayal of Republican reaction to Wisconsin HSR - caption reads "This is the GOP: The Latest Innovation in Transportation from the Republican Party" (Source: Zweifel 2010, October 20)

From the progressive perspective, conservatives viewed HSR as a threat to automobility, and so they were viewed as halting progress and taking a step backward. In his commentary on the impending end of HSR in Wisconsin, Zweifel (2010, November 17) an editorialist for the *Capital Times,* contextualized conservative opposition to HSR as a larger culture war:

> Walker and his party have already signaled that everything will take a back seat to a renewal of the culture wars we thought might finally be behind us … Like so much of the political discussion these days, passenger rail in Wisconsin has been purposely mischaracterized as some sinister plot on the part of "liberals" who really want to "take our cars away." … we're not talking about the future any longer. For the next four years, we'll be revisiting the past."

HSR proponents frequently satirized the conservative stand against HSR (see figure 12), as the following campaign-slogan-style statements made by proponents in online posts demonstrate. In one post, an HSR proponent declared: "SCOTT WALKER 2010: FIGHT THE FUTURE!" (rcoogan 2010, June 10). Another wrote: "Now showing, Scott Walker in 'Back to the Past', a time travel adventure back to the days when June Cleaver stayed

at home" (Fadjah 2010, August 16). Yet another stated: "Wisconsin's new state motto:

'Reverse'" (backtalk 2010, November 17). And another, making reference to a stereotype

of the state of Mississippi as a "backwards" state, proclaimed: "We are now Wississippi"

(ReasonalbleDoubts530 2010, November 17).

In a progressive discourse of HSR-as-moving-forward, HSR became self-

evidently a driver toward a positive future for Wisconsin. In a post from relatively early

on in the debate, another commenter expressed a sense that it was illogical to conceive of

the project as controversial:

> To turn away this federal funding is silly, and I am shocked to see a
> second article about Walker's lack of support within a 10-day period. The
> design and construction work will be performed substantially by
> Wisconsin companies, and nearly exclusively by Wisconsin employees.
> When our state and cities are already lagging behind the rest of the
> country in public transit, one can only marvel at the short-sightedness of
> this election trail fodder.
>
> The corridor is not an immediate necessity, but it is a huge leap forward.
> (me me 2010, February 28)

Similarly, in a statement that can be directly contrasted with the above-mentioned claim

that passenger rail was akin to demanding that the Pony Express deliver letters rather than

using email, another proponent posted a comment arguing that:

> you have to be an idiot to be against high speed rail. its like saying, my
> business doesn't want to use computers, they are too expensive, we would
> rather use a pencil and paper. this is the future, if wisconsin does not get
> on board we will be left behind. if you want to see what a tier one city
> looks like, ride the train down to chicago. if you dont think anyone will
> ride this...ride the train down to chicago. (eastside 2010, August 31)

Finally, in response to an article written by *Milwaukee Journal Sentinel* conservative

columnist Patrick McIlheran (2010, November 13), an HSR proponent posted a comment

that:

> This drivel shows how short sighted Patrick can be. This money will be spent on a train. Just somewhere else apparently. And, we will pay for it, just somewhere else. The big picture has trains expanding nationwide. Just not here apparently. BACKWARD, WISCONSIN in 2011. And though [conservative talk-radio personality Charlie Sykes] sounds like he'd like to kiss Pat, I think he's in the early 20th century thought process wise. (Inspector2211 2010, November 15)

Taking Action

Discourse theory views actions as a part of discourse, and so to ignore them would be to miss a significant and meaningful aspect of the politics of Wisconsin HSR. After Scott Walker was elected to governor and the likelihood of HSR's success in Wisconsin decreased, proponents and opponents alike took significant actions. On November 20th, 2010, rallies organized by the environmental non-profit group the Sierra Club, among others, were held in Madison, Milwaukee, Oshkosh, Watertown, Eau Claire and La Crosse (Daykin 2010, November 20). The rallies themselves were meant to attract attention to the demand for HSR among Wisconsinites through the media coverage of the events, as well as through efforts to encourage HSR supporters to write the governor-elect, sign onto a petition drive, attend public hearings, and ride the Hiawatha service on December 4th along with the Sierra Club and Wisconsin Association of Rail Passengers in order to "make a statement about who rides the train" (see figure 5). Indeed, the act of simply being there was at least as meaningful as, if not more so than, composing a letter to the Governor, or posting a comment in an online newspaper forum. In one online post to the newspaper reporting on the rally in Milwaukee, a HSR proponent described their reasons for taking part:

I… support a progressive WI and want to see rail come to the region. Please
remember this is ultimately about a multi-state rail program, not just Madison-Milwaukee … I went because I wanted to accomplish an act that would show my beliefs better than spouting cynical comments on a news-story.   I   was there today because WI needs to follow its motto and look "forward."… (midwestphoto 2010, November 15)

Figure 13 – Flyer handed out at "Save the Train" rally at Milwaukee Intermodal Station, November 20th 2010

Attempts by proponents to become both visible and heard in expressing their concern over jobs, economic development, sustainable transportation, and transport options for the carless demonstrate how they too had drawn a chain of equivalence between these various demands, and that they had taken up HSR as an empty signifier. HSR came to stand in for a series of particular demands: for downtown Madison business and urban planning interests, HSR offered a catalyst for redevelopment (*Capital Times* 2010, July 2); for environmentalists, HSR presented a shift in the unsustainable transportation regime of automobility (Zweifel 2010, February 10); for the largely

African-American community in the economically-disadvantaged neighborhoods around Milwaukee's 30th Street Industrial Corridor, HSR and the new Talgo manufacturing brought the hope for greater access to jobs and economic development (Holifield and Zupan 2013; *Milwaukee Community Journal* 2010, November 16). The linking of otherwise disparate democratic demands through HSR constituted these various individuals as HSR proponents, and it formed an antagonistic frontier between them and the Republican candidates and political conservatives seeking to stop HSR. Though the antagonistic frontier seems less strong than that of conservatives, proponents nonetheless contested the HSR opponents' claim to being the real people of Wisconsin.

Similar rallies were not held by HSR opponents in Wisconsin, perhaps because it was not viewed as necessary – opponents had secured the clear advantage in the politics of Wisconsin HSR with the election of Scott Walker as governor. Still, Republican elected officials did take meaningful actions that underlined their resistance to the project. Governor-elect Walker repeated requests that Wisconsin be allowed to use the funds for roads, even as it had long been clear that this was not possible (Barbour and Spicuzza 2010, November 9; Sandler and Gilbert 2010, November 16). Indeed, this was a proposal that the U.S. Secretary of Transportation "flatly rejected" (Sandler 2010, November 8). Fellow Wisconsin Republican and member of the U.S. House Transportation and Infrastructure Committee, Representative Tom Petri, was sympathetic to Governor-elect Walker's request, but referred to its chance of success as "very unlikely" (Petri, quoted in Stein and Marley 2010, November 9). As key individuals I interviewed confirmed, it is difficult to accept that Governor-elect Walker was unaware that the redirection of the funds to highways was not possible (personal interviews,

Minnesota DOT official; Wisconsin state elected official; Midwest passenger rail advocacy stakeholder).

Meanwhile, three Wisconsin Republican congressional politicians (U.S. congressmen Jim Sensenbrenner, Tom Petri, and Paul Ryan) introduced a bill to Congress that would allow states to use HSR funds to pay against the federal $1.6 trillion deficit and $13.8 trillion debt (Sandler and Gilbert 2010, November 16). However, the sums of money involved would mean that even if all of Wisconsin's HSR funds were paid back to the U.S. treasury, it would have had little impact on the country's debt. Consequently, it seemed a senseless action to HSR proponents. As one proponent satirized this situation:

> I wondered what my bookie who I owe $1.3 million will say when I offer him $81 towards my deficit. I bet my legs will still get broken.

> This bill wont get past the House let alone to the Senate floor or Obama's pen... IL, CA, and NY already have plans for our share of this money. (JRockn 2010, November 16)

And indeed, all three of the congressmen conceded that the bill was not going to become law (Sandler and Gilbert 2010, November 16). However, as Representative Sensenbrenner made clear, it was symbolic of a principled stance: "we're setting a marker down …This is great for the new Congress to show if we're serious about reducing the deficit" (Sensenbrenner, quoted in Sandler and Gilbert, November 16). Though they may have appeared nonsensical to proponents, the actions of conservative politicians were in fact strategic and effective, because when a transportation project is still in the stages of planning, doing nothing is entirely sufficient to stop the project from being realized (Latour 1996). Consequently, these actions signaled a clear, hardline Republican

resistance toward accepting the HSR funds, and were consequently extremely meaningful actions.

The Death of High-Speed Rail

The language of killing and death was common throughout the debate, particularly toward the end of the project. For instance, there were 115 references to killing and death within the 501 articles in the newspaper articles analyzed in this study, and these were made by opponents and proponents of HSR alike. The use of metaphors of death and killing, and relatedly, of victory and mourning, helps to further outline the contours of the established discourses of HSR in Wisconsin.

Because the discourse of HSR-as-threat had been firmly established among conservatives, their use of metaphors of killing and death suggested that HSR was something that was to be stamped out, and the eventual death of HSR was proclaimed in a celebratory tone of victory over an enemy. One blogger for the *Living Lake Country* (an online newspaper platform serving the region around Oconomowoc and western Waukesha County) exemplified this joy in the death of HSR, drawing on a number of the other discourses in the debate (Geiger-Hemmer 2010, November 28):

> but the Milwaukee Journal/Sentinel started up full-force again, with it's [sic] barrage of stories trying to convince people that the high-speed rail line is just NOT DEAD!!! It can't be! Wah wah wah! We won't let it die!!! No way!!!
>
> Aren't the folks at the Journal/Sentinel starting to get just a wee bit embarrassed by the constant drumbeat of nonsense printed in their daily rag? Maybe one of Scott Walker's representatives, or Scott Walker himself, needs to have a face-to-face with head honcho Marty Kaiser and tell his liberal minions point blank: "Sorry, guys. There will be no car-speed choo-choo." What will it take? Walker has said over and over that the high speed rail line between Madison and Milwaukee is DEAD. The project has been killed. The voters in our state supported Walker for a variety of reasons, one of the main ones being that Walker promised to kill the train. And Walker has said numerous times that he will NOT allow it

to happen. Yet his statements fail to register - the journalists at the J/S refuse to listen - covering their ears with their hands and mumbling "I can't hear you!" like little children.

Geiger-Hemmer then cites a *Milwaukee Journal Sentinel* article (Sandler 2010, November 25) which argued that the "planned high-speed rail route … might not be dead," and she claimed that this "shows the pro-car-speed rail folks are still in the first stage of grief: denial." She then responds:

> **Might not be dead???** Say what? Folks, it's OVER. IT IS DEAD!!! Just as the reign of Barack Obama has come to a screeching halt, the shift towards socialism and other pet liberal projects are done. Finished. And it isn't going to be getting better for the left anytime soon. People don't WANT what liberals or Dems have to offer - and we demonstrated that belief with our votes. Barack Obama - in his quest to destroy America - woke up Americans. The people of our great country didn't like what they saw, in any way, shape, or form. And we said "NO!" loud and clear. Of course, Obama and Pelosi have failed to get the message, which in a way, is good. They will continue on their same course, which will lead them - not us - to ruin. They are like the folks at the Journal/Sentinel - the ones that cannot accept the fact that -ding dong - the train is DEAD! Pretend what happened really didn't happen and go on your merry way. Ignore reality. Keep it up till 2012. (Geiger-Hemmer 2010, November 28, emphasis original)

Geiger-Hemmer's column clearly communicates the notion that HSR was part of a larger agenda from the Obama administration to impose a progressive vision onto the real people of Wisconsin/America, and that this threat was stamped out. Meanwhile, HSR proponents are like children who cannot deal with the loss of their much-sought after toy, and are sunk in their grief over the death of the project.

This joy in the death of HSR was also expressed by politicians, including Governor-elect Walker, who communicated this message in two separate statements from his transition team:

> Governor-elect Walker is pleased that these three leaders understand that the train between Milwaukee and Madison is dead. (Cullen Werwie, spokesperson for Scott Walker, quoted in Sandler and Gilbert 2010, November 16).

And:

> The Madison-Milwaukee train line is dead. Wisconsin taxpayers will not be on the hook for multi-million-dollar ongoing operating subsidies because of Governor-elect Walker's efforts to stop this boondoggle. (John Hiller, transition director for Scott Walker, quoted in Sandler 2010, November 18)

On the other hand, progressives, through their discourse of HSR-as-moving-forward, viewed the attack on HSR as a threat to their progressive social vision for the future. And so, they made use of killing and death in relation to mourning a loss. Consequently, in their statements, HSR proponents alluded to the death of HSR, often through the language of mourning and grief. In a letter to the editor of the *Waukesha Freeman*, one person, after learning that outgoing-Governor Doyle halted work on the project after Scott Walker won the election, wrote:

> I woke up this morning to see the rail project halted. For years, I've eagerly awaited a method of transportation that would bolster the busy, ever-moving lives of artists, college students, workers, and innovators, but now an inspiring idea that finally became a reality is, most likely, dead. (Loeffler 2010, November 9).

But, this sense of mourning was perhaps most clearly demonstrated by the candlelight vigil, a communal act typically done to mourn a loss, held at the Talgo manufacturing facility in Milwaukee's 30th Street Corridor (Holifield and Zupan 2013; *Milwaukee Community Journal* 2010, November 16).

Likewise, when prominent Wisconsin Democrats learned that the HSR funds would be redistributed to other states' HSR projects, they made use of the language of mourning. Outgoing-Governor Doyle considered the death of the HSR project a "tragic moment for the State of Wisconsin," adding that he was "obviously … deeply saddened to see us take a major step backward" (Doyle, quoted in Kaiser 2010, December 9). Madison Mayor Dave Cieslewicz referred to the redistribution of HSR funds as "a black

day for Wisconsin's economy" Spicuzza (2010, December 10). Milwaukee Mayor Tom Barrett stated that while he was glad for the "workers in California and Florida [who would be having] a Merry Christmas," he was "sad" that the same could not be said for the workers in Wisconsin (Barrett, quoted in Sandler 2010, December 9). Scott McDonell, Dane County Board Chairman, alluded to his grief in the most visceral terms by referring to the end of HSR as "a swift kick in the gut to Wisconsin" (quoted in Briggs 2010, December 9). Whether the death of Wisconsin HSR meant a victory for the people of Wisconsin to celebrate, or a loss for the people of Wisconsin to mourn, it had brought closure to the debate.

Discussion and Conclusion

In sum, the meanings in the debate, and not simply the quantifiable factors of HSR, were clearly significant for shaping its outcome in Wisconsin. The discourses surrounding the debate over Wisconsin HSR revolved primarily around competing conservative and progressive understandings of what the project meant in terms of economic development and normative societal goals. Neither progressives nor conservatives viewed HSR simply in terms of an extension and upgrade of existing passenger rail service to Madison. Instead, progressives took up HSR as a symbol of moving Wisconsin forward toward an economically and environmentally sustainable future. In contrast, conservatives took up opposition to HSR as symbolic of taking a stand against federal government excess and overreach.

At the same time, it mattered that this debate was both about passenger rail, and that this passenger rail project was discussed as a high-speed passenger rail project. Conservative resistance appealed to a number of autonormative notions that othered

passenger rail in direct contrast to the automobile as frivolous, costly, a threat to the motoring American status quo, and an obsolete mode of transportation. Meanwhile, the misleading language of "high-speed" led to greater confusion about how the project was meant to function, fostering a notion that people were being duped by the Democratic leadership touting the project. Proponents of true HSR, who were hoping for trains traveling at speeds of 220 mph, felt they were being lied to when they learned that Wisconsin HSR was nothing more than an extension of conventional rail service (personal interview, Midwest passenger rail advocacy stakeholder). The high-speed moniker was also criticized by opponents of the project. On the one hand, opponents viewed passenger rail as technologically obsolete, having been surpassed by the automobile. On the other hand, they critiqued proponents as not even meeting their own standards of technological progress because the train was not truly high-speed, satirizing the route as "car-speed rail" (Geiger-Hemmer 2010, November 28), "not so high-speed rail" (Milholland 2010, September 8, p. 7A), and as the "low-speed train" (WI_Calvin 2010, March 7).

One specific implication that the results of this exploratory discourse analysis of Wisconsin HSR have for transportation geography literature is that the claims made and actions taken by politicians cannot be taken at face-value. Moreover, these results underline the importance of public perception for the success of HSR, and are thus consistent with transportation geography literature (Becker and George 2011; Garmendia et al. 2012; Mathur and Srinivasan 2009). However, this research suggests that public perception of such projects is also quite fluid. The significance that the meanings of the HSR project had in this debate demonstrate that these must be taken seriously in research

about contentious transportation projects. Especially considering that a number of transportation geographers have been concerned with offering analyses of the chance of success of HSR in the U.S. (e.g. Albalate and Bel 2012; Button 2012; Garmendia et al. 2012; Johnson 2012; Lane 2012a; Mathur and Srinivasan 2009; Perl 2012a; Ryder 2012a; Tanaka and Monji 2010), there needs to be a greater acknowledgement among transportation geographers that the fate of transportation projects is not only tied to their quantifiable advantages and disadvantages, but also to historically contingent meanings.

The results of this research are consistent with critiques that totalizing, global notions of automobility neglect contingency and agency in the reproduction of the hegemony of automobility. Specifically, using a discourse theory approach revealed contingencies in the debate that would have been missed using more rigid conceptualizations of automobility, which assume a certain inevitability in the outcome. Any number of possibilities could have changed the outcome of the debate. For example, if the project would have been billed as an expansion and upgrade of existing Amtrak service, and avoided the language of high-speed, it may not have been as controversial. Or, if the project had been further along in its development before the gubernatorial campaign season in Wisconsin, it may have remained uncontroversial. Or, if Scott Walker, who has a well-known and long-standing reputation in Wisconsin of being anti-transit (Bauman 2007, February 26; Kaiser 2013, March 6; Kordus 2009, September 22; Lewyn 2014, January 12; *Milwaukee Journal Sentinel* 2011, March 4; Stanford 2010, November 16), had lost in the Republican primary to a candidate more amenable to the project, or in the general election to Democrat Tom Barrett, the project may have continued as planned.

Regarding discourse theory's particular contributions, I would argue that the novel language of high-speed played a very special role in this debate, allowing HSR to be so pliable in meaning different things to different people. In other words, even though the Wisconsin project, from a purely technological standpoint, would have been a relatively conventional mode of transportation, the language of high-speed opened the project up in terms of the meanings associated with it. To borrow insights from Latour's (1996) discussion of *Aramis,* another novel, yet never materialized transportation project, the Hiawatha line existed as an object independently of various people's viewpoints. That is, as a material reality, it exists like a statue that, although people standing around the statue may have differing perspectives on it, these perspectives are nonetheless united at some level by the physical materiality of the statue. But, as long as such a novel transportation project only exists on paper, or in the minds of engineers, politicians, and the general public, "one can only be subjective" about it (p. 75). Consequently, because it was discursively constructed as a novel technology, which did not yet exist as a material reality, there were as many Wisconsin HSRs as there were perspectives of it, and these viewpoints were often irreconcilable with each other. Constituting a mostly vague "[form] of representation," then, Wisconsin HSR was able to be taken up as an empty signifier, or to "serve as [a point] of symbolic identification for a range of different groups and subjects with divergent identities and interests" (Griggs and Howarth 2008, p. 128). Through the novelty of high-speed, the project became discursively constructed as a "boogeyman" (McBride 2010, November 13, p. 8A), a threat to be put down, and there was nothing inevitable about it.

Chapter Four
**A bridge too far: Traffic engineering science and the politics of
redecking Milwaukee's Hoan Bridge[1]**

Introduction

In this chapter, I present my case study research on Milwaukee's Hoan Bridge, and the contentious debate over whether a bicycle and pedestrian path (which I call a bike path, as it was most often referred to in the debate) should have been added to the bridge during its complete redecking. Despite significant local support for a bike path on the bridge, the Wisconsin Department of Transportation (WisDOT) excluded it from the final design plans, using the results from its level of service (LOS) analysis to justify the decision. However, WisDOT's use and representation of LOS drew criticism from bike path advocates and even City of Milwaukee traffic engineers. In this chapter, my goal is to further a nascent discussion of LOS in the politics of mobility literature by exploring the role it played in the case of the Hoan Bridge. I use a mix of qualitative methods to trace the debate over a bike path for the Hoan Bridge, investigating the question of how the ultimate decision against the Hoan Bridge bike path was legitimized and sustained in the face of considerable local support for the project.

Traffic engineering is responsible for producing tools such as LOS, so, in the next section, I use urban planning history literature to situate traffic engineering historically by reviewing its construction as an apolitical science in the 20th century. I then introduce the engineering concept of LOS, before discussing the politics of mobility literature that deals with such technical and regulatory aspects of transportation. Then, I sketch out the

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[1] A version of this chapter has been accepted for publication with revisions in: Cidell, J., and Prytherch, D., (Eds.). (Forthcoming). *Transport and Mobility in the Production of Urban Space*. New York: Routledge.

history of the plans for a bike path on the Hoan Bridge, leading up to the most contentious point of the debate in the fall of 2011, after which I present the findings of this research. I conclude with a discussion of the contributions of these findings to the politics of mobility literature.

Literature Review

History of Traffic Engineering as a Science

Traffic engineering, particularly in the U.S., has long been understood in more critical analyses as a central contributor to the current dominance of automobility, or the centering of American society around the automobile and its spaces (Barret and Rose 1999; Duany et al. 2001; Henderson 2006; Jackson 1985; Jacobs 1961; Kunstler 1994; Mumford 1963; Norton 2008; Shoup 2011). The origins of automobile hegemony can be traced back to the early 20th-century Progressive Era of scientific positivism, whose proponents viewed most problems as being solvable using scientific methods. During this era, the road engineer's professional responsibility shifted away from building and maintaining infrastructure to performing scientific research focused on the human component of traffic flow (Barret and Rose 1999; Brown 2006; Brown et al. 2009; Weinstein 2006). This new paradigm of traffic engineering took the unimpeded flow of automobiles as an unquestioned core value, and a predict-and-provide ideology as its central policy orientation, meaning that the necessity to anticipate and accommodate future automobile traffic growth was uncritically accepted as the norm (Barret and Rose 1999; Hebbert 2005; Henderson 2009a; Hess 2009; Østby 2004; Norton 2008; Southworth and Ben-Joseph 1995; Vigar 2002).

The creation of a traffic science from the Progressive Era onward "technif[ied]" and "transform[ed]" questions of mobility from a set of "ideologically controversial issues," which had formerly been resolved through contentious politics involving various stakeholders, "into concerns for the objective arena of science and technology" (Blomkvist 2004, p. 300). This had the effect of making traffic engineers appear to be value-free, neutral, and apolitical, meaning that the institution of traffic engineering was given a voice of authority that was perceived to transcend and supersede the contentious politics of mobility (Brown 2006; Østby 2004). Despite this appearance, traffic engineering has historically been closely-aligned with particular business and government interests, as a general consensus developed that easing conditions for motorists (by ceding street space nearly exclusively to automobiles) was good for downtown businesses (Barret and Rose 1999; Brown 2006; Hess 2009; Østby 2004; Weinstein 2006).

Much has changed since the Progressive Era, and a few qualifications are in order. First, traffic engineering has not been spared critique, and new paradigms of urban design have been suggested, while new road construction has been somewhat de-emphasized (Brown, et al. 2009; Duany et al. 2001; Hess 2009). Second, traffic engineers are not an unchanging, ideologically coherent group. As this case suggests, and others have argued (e.g. Brown et al. 2009), federal and state traffic engineers have historically been less concerned with building locally appropriate traffic infrastructure compared to city traffic engineers. Moreover, engineers who are eager to encourage non-motorized modes face firmly institutionalized biases toward automobility that pose considerable political and legal hindrances to change (Hess 2009). Finally, there are considerable

differences both temporally and spatially, as is evident by comparing states' departments of transportation in terms of their approach to automobility vis-à-vis multimodality, or the coexistence of multiple, viable modes of transportation: some states have invested more heavily in providing alternatives to automobility, while others have remained committed to maintaining what Freund and Martin (2009, 2007) have termed "hyperautomobility," or the complete societal dependence on automobility even for short distances, and the most mundane of daily tasks. Despite these qualifications, much traffic engineering continues to function in terms of its traditional, positivistic paradigm of moving cars at high speeds as a generally unquestioned goal (Barret and Rose 1999; Blomley 2007a; Brown 2006; Henderson 2011a; 2011b; Østby 2004; Southworth and Ben-Joseph 1995).

Level of Service

One traffic engineering concept that is highly significant for operationalizing a predict-and-provide ideology is LOS (Henderson 2013b; 2011a; Patton 2007). Due to the significance of the concept for this research, I begin this subsection by describing LOS using one of the definitive sources of traffic engineering in the U.S., and the source cited by WisDOT (2011a; 2011e), the 2010 edition of the U.S. Transportation Research Board's *Highway Capacity Manual* (HCM) (TRB 2010). Then, I examine LOS more critically, before turning to the still limited use of LOS in the recent politics of mobility research.

When applied to highways, LOS is the simplification of performance measures for a given stretch of highway into six letters that qualitatively describe the operating conditions as perceived by individual motorists. These six levels of service range from A

to F, with LOS A representing "the best operating conditions from the traveler's perspective and LOS F the worst" (TRB 2010, p. 5-3). The HCM summarizes the intended use of LOS as a simplification of complicated numerical results into a simple A – F scheme, that can offer guidance to decisions regarding whether current and future performance of a highway are acceptable, and whether changes to this performance would "be perceived as significant by the general public" (TRB 2010, p. 5-3). Further, it is noted that while LOS offers a means by which transportation engineers can communicate roadway performance, "it is up to local policy makers to decide the appropriate LOS for a given system element in their community (TRB 2010, p. 5-3)."

The HCM states that: "LOS is a useful and widely adopted tool for communicating roadway performance to laypersons and decision makers. However, one should also be mindful of its weaknesses," a number of which the HCM identifies (TRB 2010, 5-3). First, LOS only accounts for the experience of individual motorists, and not for other types of road-users. Second, the step nature of the model means that a small change in operating conditions may result in no change in LOS, or change in one, or even two levels of service. The HCM identifies that this "can be a particularly sensitive issue" (TRB 2010, p. 5-4) when fixed standards of LOS are used, as it becomes possible that a small change in operating conditions can lead to a letter change in LOS, which would then require an agency to build new infrastructure. Third, due to the various uncertainties in the data collection and analysis process, "the 'true' LOS value may be different from the one predicted" (TRB 2010, p. 5-4). Fourth, individual motorists may perceive the LOS differently under different conditions; they may perceive them differently than other motorists do under the same conditions; and they may perceive LOS differently than the

HCM method of determining LOS (Brilon and Estel 2010; Choocharukul et al. 2004; TRB 2010). As a result, the HCM states that LOS results may be thought of as "statistical 'best estimators' of conditions and aggregate traveler perception" (TRB 2010, 5-4).

Although LOS is used virtually universally throughout the U.S. (Henderson 2011a), there is no universal minimum standard for LOS country as a whole. According to the HCM, "roadways are not typically designed to provide LOS A conditions during peak periods, but rather some lower LOS that reflects a balance between individual travelers' desires and society's desires and financial resources" (TRB 2010, p. 5-3). In other words, the LOS standards chosen by U.S. state departments of transportation should theoretically be the product of a negotiation between these often-competing interests.

In summary, the HCM views LOS as a simplification of performance measures for a given facility, such as a highway, into a scheme of A − F. This simplification can help to guide decision makers' choices about, for instance, whether a facility may have a change in operating conditions in the future that motorists would perceive as significant. It is up to local policy makers to decide what LOS levels are appropriate for facilities in their communities. LOS has its limitations, though, and both analysts and decision makers should be made aware of these (TRB 2010, p. 5-3). Ultimately, LOS serves as a "statistical 'best estimator'" (TRB 2010, p. 5-4) of driver perception of a facility's performance. It is also noteworthy, as a final point, that the 2010 HCM is the first edition to offer a multimodal LOS tool that attempts to account for pedestrians, transit-users, bicyclists, and motorists (Ryus et al. 2011). However, multimodal LOS has neither supplanted automobile LOS criteria, nor does the HCM offer guidance on how to weigh benefits for different road-users (Henderson 2011a).

From a more critical perspective, the widespread use of LOS in the U.S. is crucial for the reproduction of automobility, because it operationalizes a predict-and-provide ideology. The predictive aspect of LOS for highways, is that it predicts the flow and density of motorized traffic (WisDOT 2011e). The system of A-F letters reflects the normative nature of LOS, as it establishes what is good, bad, and desirable for the future: LOS A describes free-flow conditions and generally labels these as excellent and desirable, while LOS F describes highly congested conditions, which it generally labels poor and undesirable (WisDOT 2011e). This normative aspect means that a vision of mobility in which automobility is unencumbered and other modes receive no consideration, is built into the model itself (Henderson 2011a; Patton 2007). Finally, the results of LOS analysis are used to provide the infrastructure that is predicted by the model.

Forging visions of mobility through traffic engineering

Research on the interrelated technical and regulatory aspects of transport, such as traffic engineering methods and concepts, design standards, legal classifications, and their impacts on our collective mobility have historically been left to the more quantitative, positivistic scholars of transportation. However, as an increasing body of work demonstrates (e.g. Blickstein 2010; Blomley 2012; 2007a; Carr 2010; Cresswell 2006b; Henderson 2011a; 2009b; Patton 2007; Prytherch 2012), scholars at the intersection of transportation, mobilities, and urban geography are well-positioned to contribute to this discussion, as they are concerned with the value-laden, political struggle over how mobility and the spaces that facilitate it are produced and reproduced (Cresswell 2010b; 2006a; Henderson 2013a; Paterson 2007). Even banal aspects of

mobility are inscribed with values as they differentially facilitate or restrict various forms of mobility (Cresswell 2006a; 2006b; Henderson 2011b). Whether the design of sidewalks or the radius of the street corner, any particular standard hierarchically privileges road-users through concrete and paint (Patton 2007; Prytherch 2012; Simons 2009). Consequently, visions of mobility are materialized in part through such technical and regulatory aspects of transport, and so they should be taken into account in seeking to better understand the struggle over the production of mobility and urban space.

Thus far, much of the attention has been focused on the regulatory frameworks that classify people's rights to spaces, as well as their rights within spaces, based upon their mode of transportation. Blomley (2012; 2010; 2007a; 2007b) has contributed important perspectives to the legal constitution of the rights of people to use public space, arguing in particular that it is through traffic engineering that a deeply institutionalized "traffic logic" produces public space not as "a site for citizenship, but [as] a transport corridor," and which reconstitutes people and objects in terms of "blockage and flow" (Blomley 2007a, p. 64). Blomley's (2007a; 2007b) work has emphasized the implications of traffic logic for the urban poor and homeless, who, through being stationary while panhandling, or sleeping on city benches and sidewalks, are constituted as impediments to the "proper" use of public street space as a place of traffic flow.

More recently, Prytherch (2012) has examined the "uneven power geometries" (p. 295) of street space that are materialized through law and the traffic code. In his case study of the State of Ohio Revised Code (the state's body of traffic statutes), he shows how the circulation and flow of automobiles is prioritized through law and traffic design over otherly-mobile bodies. He offers an example to problematize the prioritization of

automobility through traffic logic, in which a pedestrian hit by an automobile on a busy street with no safe and legal means to cross it was charged with failure to yield the right-of-way. According to the Ohio Revised Code, she had been found to have no "right to the right-of-way" (p. 295). Prytherch's research helps to demonstrate that the public street is produced through traffic logic as a space of automobile flow. And, despite the significance of the street as a part of overall public space, it has nonetheless largely been taken for granted within (critical) human geography, allowing crucial questions of social justice to be overlooked.

Hess (2009) has argued that, historically, a general consensus on this traffic logic existed between traffic engineering and planning professionals. However, this consensus has broken down since the latter part of the 20th century, when urban planning professionals moved beyond the notion of streets strictly as a space of flows, to thinking of streets as a space of place-making. But, despite planning professionals' desire to move beyond this traffic logic, traffic engineering standards have become institutionalized as "daily bureaucratic routines" which act as institutionalized hurdles for redesigning streets as spaces of place-making (Hess 2009, p. 1). Hess argued that between these professionals, the technical knowledge of engineers holds greater weight to elected officials, as its specificity has often been implicated in safety concerns and legal liability. However, the "exclusion of [certain] actors and the differential valuing of viewpoints" in favor of traffic engineering expertise "narrows potential outcomes and sustains existing practices" of designing streets based on traffic logic (Hess 2009, p. 4).

As these examples demonstrate, important groundwork has been laid in examining the interrelated technical and regulatory frameworks of mobility that

differentially hierarchize mobility, historically preferring flow and speed (especially of automobiles) over place-making in streets and sidewalks. As yet, less has been said in politics of mobility research about specific tools, such as LOS, though two prominent exceptions exist. Patton (2007), in his case study of Oakland, California, studied how the competing logics of walking and driving are built into the material landscape and embedded in transportation plans. Patton argued that LOS has embedded within it an "ideal of unfettered mobility" (p. 935) for cars, and that LOS is not only incapable of analyzing the performance of the street for pedestrians, cyclists, and transit-users, but it treats non-drivers as potential impediments to good LOS. Further, he argued that the traffic engineers' emphasis on using tools such as LOS has created a situation in which policy makers are presented with precise quantitative figures showing the benefits of street redesign for cars. However, the benefits of such a redesign with pedestrian safety and accessibility in mind can only make recourse to qualitative arguments about their potential benefits. This mirrors Hess's (2009) argument regarding local elected officials' privileging of traffic engineering's narrower, yet highly developed expertise over that of urban planners' broader, yet less quantitatively precise expertise. As a result, the quantitative expertise of traffic engineers has tended to be given greater weight by policymakers when deciding how mobility and its spaces should be arranged, compared to the contributions of planners and laypeople.

Henderson (2013b; 2011a) has expanded on this discussion of LOS as a barrier to multimodality and compact development. He has noted a number of problems with LOS: the ranges used in LOS are approximate, subjective, and originally derived through somewhat arbitrary methods; and it focuses only on the morning and evening peak

periods, meaning the LOS grades that draw the most attention only reflect conditions for a short period of the day (Henderson 2011a). Henderson's (2013b; 2011a) research focused on the politics of LOS in San Francisco, and the local movement toward eliminating LOS from the city's planning requirements. He demonstrated that multimodal advocates' efforts in San Francisco to redesign the city's streets have been frustrated by institutionalized bureaucratic standards of using LOS for all projects in the city that have the potential to impact traffic. In response to the hurdles of LOS, multimodal advocates in San Francisco have argued for the removal of LOS, and advocated replacing it with a tool that focuses instead on avoiding the generation of automobile trips.

These authors have shown that LOS as a standard, typically compulsory traffic engineering analysis stifles attempts at multimodality; strongly encourages spatial separation of destinations and automobile dependence; privileges automobiles while marginalizing non-drivers by viewing them as obstacles to traffic flow; and that, for these reasons, is inherently value-laden, having a particular vision of mobility embedded within it. However, existing research has only begun to examine the role of LOS in the politics of mobility. Thus far, these scholars have only looked at the role of LOS in city intersections, while no examples exist in the politics of mobility literature that examine highway LOS, which was the type of LOS that played a role for the Hoan Bridge. Consequently, my goal is to contribute to the nascent discussion of LOS in the politics of mobility research by linking it with a discussion of the role of traffic engineering as an ostensibly scientific pursuit with a case study of the politics of redecking Milwaukee's Hoan Bridge, in which highway LOS and WisDOT's claims to objectivity as a scientific pursuit came to be central concerns of the debate.

Methodology

The methodological approach established by other politics of mobility scholars has been to employ a range of qualitative methods to make sense of the competing interests and values regarding contentious transportation projects, typically using a combination of qualitative interviewing, document analysis, and participant observation at key events (Henderson 2011a; 2006; 2004; Patton 2007; Weitz 2008). In this research, I followed this general approach by using a combination of qualitative methods, including: qualitative document analysis; semi-structured interviews and a focus group; participant observation; and a mobile method.

I began this research in the fall of 2011, when the debate was ongoing, by collecting newspaper articles (primarily taken from Milwaukee's largest newspaper, the *Milwaukee Journal Sentinel*), public documents such as letters and emails sent to bike path advocates, and online news videos (e.g. *Milwaukee Journal Sentinel* 2011, October 17), many of them interviews with important local stakeholders in this debate. During this active period of the debate, I also conducted two in-depth, semi-structured interviews. The first interview was with a City of Milwaukee planner closely involved with the city's efforts to have a bike path included in the Hoan Bridge redecking. The second interview was with a local bicycle advocate who runs a significant website that served as a platform for Milwaukee bicycle advocacy efforts. I recorded and transcribed these interviews. With the data from this period, I conducted a preliminary qualitative content analysis using the qualitative data analysis software MaxQDA. I coded the texts inductively, which consists of identifying significant themes and patterns in the texts, and refining codes based on these in an open, iterative process (Babbie 2007; Cope 2010). I

used these codes as a starting point from which to manually code the textual data that I collected for the rest of my research on the Hoan Bridge bike path.

I used participant observation at three events, two of these occurred while the debate over the bike path was still active. First, I participated in an advocacy bicycle ride on October 17th, 2011, organized by state Senator Chris Larson and state Representative Jon Richards, both of whom represent the areas around the bridge. The ride began in Milwaukee's Bay View neighborhood south of the bridge, and followed the alternative route to downtown on city streets with the goal of demonstrating to WisDOT and elected officials that a direct, dedicated bike path over the Hoan Bridge was necessary for both improved safety and connectivity for bicyclists (McDowell 2011, October 17; *Milwaukee Journal Sentinel* 2011, October 17). I spoke with numerous individuals before, during, and after the ride, and attended the press conference that was held at the end of the ride. Second, I attended the second and final WisDOT meeting on the project, taking notes on the official presentation from WisDOT representatives, and the lively question and answer session that followed. I later acquired audio and video recordings of the event, which I transcribed for analysis. Third, I attended the next public meeting on the Hoan Bridge redecking project held on April 25th, 2012, which took place after WisDOT announced it would not be including a bike path in the bridge's redecking. I took notes, and spoke with a WisDOT representative who had been directly involved with the *I-794 Lake Freeway Bicycle/Pedestrian Feasibility Study* (WisDOT 2011e), which I refer to simply as the feasibility study. During this period, I also acquired digital copies of the feasibility study, as well as letters submitted to WisDOT on the project from local government agencies and downtown business executives.

Throughout the entirety of my case study research, I used the mobilities method of being mobile along with my research (Büscher and Urry 2009). I explored various routes around Milwaukee by bicycle, including the officially designated Oak Leaf Trail alternative between Bay View and downtown Milwaukee, the subsequent changes made to this route, as well as numerous officially designated bicycle routes throughout the study area and county. I recorded each route ridden using Google Earth (see figure 14). A strong familiarity with the experience of cycling these routes was essential for understanding the debate over the Hoan Bridge bike path, as well as for competently conducting interviews, and for having productive discussions during participant observation events.

Figure 14 – Bicycle journeys taken around study case study area (Source: author, recorded in Google Earth)

In the summer of 2013, I conducted 14 additional semi-structured interviews with key stakeholders in the debate (making 16 interviews total), including City of Milwaukee planners and engineers; a WisDOT engineer involved in the feasibility study; city, county, and locally-based state politicians; and prominent bike path advocates. I took notes and audio recorded interviews when permission was given. If permission was not given, I took detailed notes of the interview, carefully marking statements that were verbatim versus those that were paraphrases, and immediately following these interviews, I audio-recorded my notes, thoughts, and important non-verbal cues about the interview. Relevant interviews and interview segments were transcribed for inclusion in the analysis. Also during the summer of 2013, I attended a meeting of a prominent local bicycle club, gave a presentation, and conducted a 30 minute focus group with approximately 30 of its members. I audio recorded the discussion, and took notes on the key themes. The range of perspectives provided by participants in the focus group helped me to identify the saturation point of my data, or the point during the data collection process at which no new insights emerge (Cameron 2010).

Having acquired this wide range of data, I hand-coded the documents using the codes established above, but refining them in an iterative process as I analyzed more of the data. In the process, I was also attentive to silences, which are potentially just as meaningful as the blatant and obvious themes in the data (Rose 2001). Identifying silences in the data requires extensive background knowledge of the research, which the use of multiple methods helped me to acquire. I begin the next section by offering an overview of the Hoan Bridge and a narrative account of the events leading up to the second public meeting on the bike path, at which the feasibility study results were

presented. I then use the second public meeting as a point from which to present the findings of this research in the form of the key themes and silences produced by this methodology.

A bike path for the Hoan?
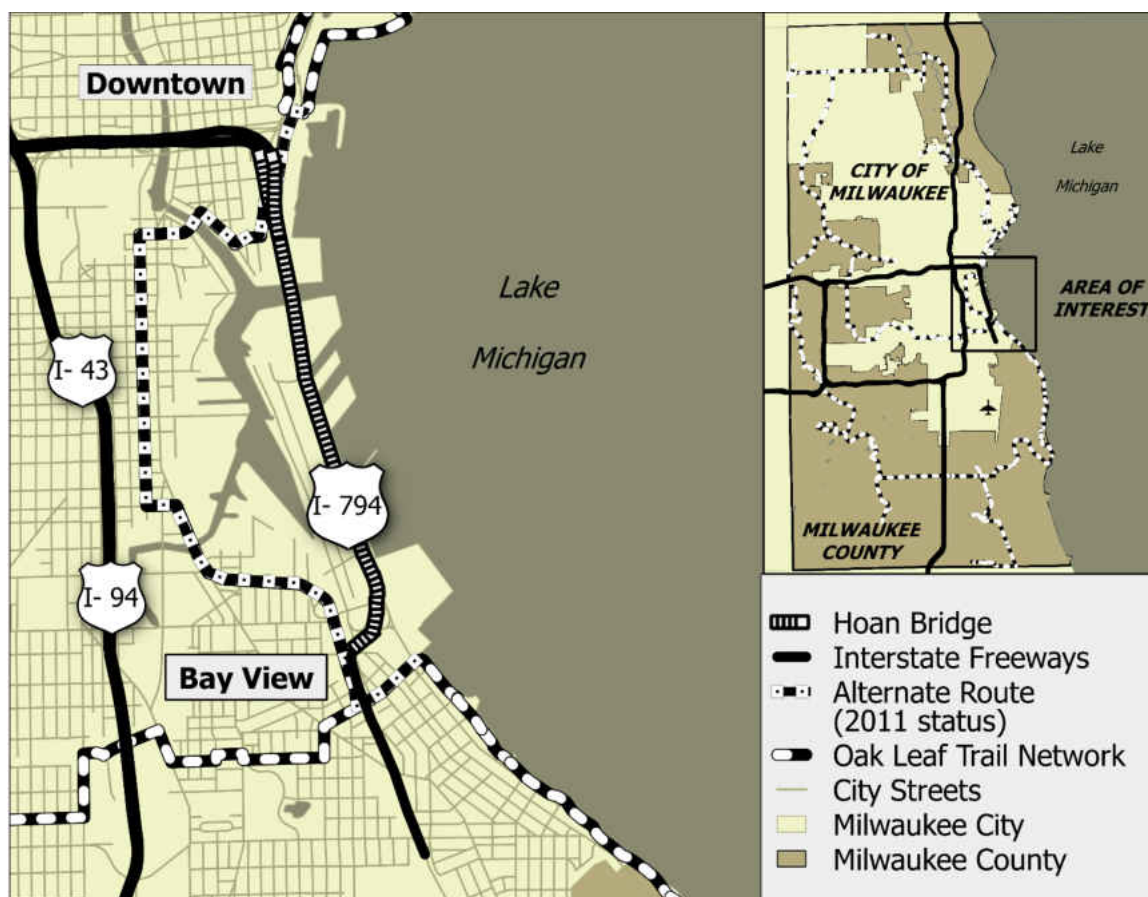
Figure 15 – Hoan Bridge case study area (Source: author)

Constructed in the 1970s as part of the freeway spur Interstate 794 (I-794), the Hoan Bridge spans over the Port of Milwaukee, connecting lakeshore neighborhoods and suburbs to the south with downtown Milwaukee (see figure 15). While I-794 is mostly a four-lane highway, for the span of the approximately 2.5-mile Hoan Bridge, it expands to six lanes. Running parallel a few miles west is the combined I-43 and I-94, which serves as the main freeway connection between Milwaukee and major destinations south, west

and north. So, despite its centrality, for a number of reasons I-794 remains one of the least congested freeways in Milwaukee County (Milwaukee Department of Public Works 2011). But the bridge is the most direct connection between downtown and the Bay View neighborhood, so it has long appeared as offering the best potential bike route.

Consideration of a Hoan Bridge bike path began in the early 1990s, when Milwaukee County was awarded federal funds to create a Bay View-Downtown bike connection (OnMilwaukee.com 2001). An initial study ended in 2002 with WisDOT deciding against a bike path over the Hoan Bridge despite city and public support for it, albeit with a promise to revisit the issue during the bridge's approaching redecking. In the meantime, some of the funds were to be used toward an alternate route (see figure 15). Though this mostly on-street route was in place by 2011 and would see improvements in the future, with over 20 intersections on city streets, it remained a complicated and potentially daunting route for many bicyclists (Held 2011, October 17). Since this route was still viewed by many as a gap between Bay View and downtown, and as a major gap both in Milwaukee County's extensive Oak Leaf Trail system, and the 162-mile network of trails along the western shores of Lake Michigan from Chicago to Oostburg, Wisconsin, advocates considered it a problem impacting bicycle commuting, local tourism, and quality-of-life (Glauber 2011, December 16).

As the time for the redecking approached, the necessity of the interstate bridge itself was questioned. One option that was studied by WisDOT and which particularly interested the City of Milwaukee, entailed removing the bridge entirely and downgrading it from an interstate freeway to a street-level boulevard with a movable bridge to accommodate port traffic (Milwaukee County 2009; personal interview, local elected

official). In response, a strong local *Coalition to Save the Hoan,* spearheaded by County Supervisor Patricia Jursik, formed to support redecking the bridge. Then-Governor Jim Doyle passed the responsibility for the future of the Hoan Bridge onto his successor (Held 2010, October 29). Scott Walker, a supporter of the *Coalition to Save the Hoan* from early on, won the election for governor, and signaled his support for rebuilding the Hoan Bridge (personal interview, local elected official).

With the future of the bridge secured, advocates once again pushed WisDOT for a bike path. Because of WisDOT's earlier promise, and due to federal and state law requiring WisDOT to consider bicycles and pedestrians on projects using federal and state funds, WisDOT (2011e) announced in 2011 that it was beginning the Hoan Bridge Bicycle/Pedestrian Feasibility Study, and that the bike path cost would be included in the overall project budget of between $275 and $350 million (Held 2011, August 23). The bridge design-life would not require another complete renovation for 40-50 years, causing bike path advocates to view this as a generational opportunity to secure a bike path over the bridge (Larson n.d. ;Schlabowske 2011). But due to the fast pace of the project, advocates of the bike path needed to mobilize quickly to engage the public and authorities on an issue that had been dormant for nearly a decade (Held 2010, October 29; personal interview, bike path advocate).

After the first of two public meetings, a bike path on the Hoan Bridge appeared to be a distinct possibility. As noted in the *Third Coast Daily,* a local arts and entertainment paper, "[i]f the turnout [at the meeting] … is any indication, there will be a bike/pedestrian lane on the bridge" (Wenzel 2011, August 24). Milwaukee's municipal government and Department of Public Works, over 40 downtown business executives,

the Long Range Lakefront Planning Committee, and the Harbor Commission of the Port of Milwaukee, among others, all publicly endorsed the bike path. A number of city aldermen, county supervisors and state politicians representing the area also lobbied for the bike path to varying degrees, leading advocacy bike rides, giving speeches and interviews to local media, and supporting a longstanding petition drive which had gathered over 5,000 signatures by December 2011 (Held 2011, November 29).

Opposition to the bike path existed, as evidenced by local news media, blogs, and public comments submitted to WisDOT. One of the more prominent local public figures to speak out against the project was Milwaukee County Sheriff Clarke, who argued that a bike path on the Hoan Bridge was "the dumbest thing [he'd] ever heard" and that [b]ikes in heavy traffic is not a good mix, … I don't care what kind of safety barrier you're going to put up" (quoted in Held 2011, October 5). The Sheriff reasserted his position via a statement read by a Lieutenant Sheriff at the second public meeting on the project (Held 2011, November 14). However, the Sheriff's argument was not taken very seriously, as the bike path-users under any alternative would have been physically separated from automobile traffic, precluding the ability of bicyclists to have been in heavy traffic on the bridge. This was explicitly addressed by the WisDOT representative at the second public meeting: "From a safety standpoint, let me just say this again, all of our alternatives include ... a 42 inch high concrete vertical barrier as well as outside fencing, and so there would be physical separation between the automobiles and the folks on the bike and ped path" (WisDOT 2011b). One of the newspaper articles later reporting the Sheriff's statement followed it by noting that: "That concrete barrier – to separate the path from northbound traffic … – would be nearly four feet high. The fencing on the outside of the

14-foot pathway would be nine feet tall" (Held 2011, November 14). In my interviews during this period, an individual involved in city planning diplomatically described the sheriff's arguments as "less well thought out," while a local bicycle advocate similarly remarked that the statement represented one of the more "'out-there' arguments." Aside from Sheriff Clarke, opposition to the path was more diffuse, with relatively few public figures or organizations speaking out in opposition. Consequently, attention was focused on WisDOT, which waited to decide the fate of the bike path pending the feasibility study results.

WisDOT officially presented the feasibility study results at the second town hall-style public meeting on November 14th, 2011, which drew such a large crowd that people watched from overflow rooms using TV monitors and telephones to call in questions during the question and answer session. The second public meeting (henceforth simply public meeting) was a key moment of conflict in this debate, as this was the only point when the public could discuss and debate the feasibility study results directly with WisDOT representatives. It was at the public meeting that the LOS results and costs of the various bike path alternatives were introduced, which informed WisDOT's decision about one month later. Consequently, many of the illustrative examples in the remainder of the chapter are taken from recordings from the public meeting, which began with an approximately 30 minute presentation by WisDOT representatives, followed by approximately 45 minutes of questions and answers.

Findings and Analysis

In this section, I present the findings of my research, predominantly using the public meeting and my interviews to discuss the key themes and silences identified by my methodology.

Objectivity and bias

Throughout the public meeting, the theme of objectivity became increasingly apparent. WisDOT described itself as an "objective regional [expert]" that had "45+ years experience" (WisDOT 2011c), and which, as mentioned during the initial presentation and in response to questions from the public, used "objective study criteria" (Sell 2011). In introducing the source of their LOS methodology to the audience, the 2010 HCM was described as "the latest edition of a manual that was first published back in 1950, so about 60 years ago" (WisDOT 2011c). Immediately after this, the representative gave a personal aside, noting that he had "been using and applying this methodology since grad school at Purdue in the late 80s," making him "certainly very familiar … with its application" and allowing him to "provide good guidance to it as [WisDOT was] moving forward" (WisDOT 2011c). At the same time, WisDOT failed to mention or describe weaknesses of LOS to the audience, such as the fact that appropriate LOS is to be determined by local policy makers for the community, or that LOS results are statistical "best estimators" of traveler perception of operating conditions (TRB 2010, p. 5-4). Consequently, the language used and information given to the audience helped to ground WisDOT and its methods in the realm of dispassionate science and tried-and-true expertise.

A second theme was WisDOT's framing of itself as apolitical and external to the politics of the debate. Early on, WisDOT informed the audience that there are "people on many different sides on the particular issue," who were asked to respect each other's opinions (WisDOT 2011a). Meanwhile, WisDOT, as an apolitical authority, hosted meetings in order to gather information:

> "… we do not do referendums on projects, we have a very inclusive public involvement process. That's why we're here this evening, to try and be open and answer questions and listen to what people have to say. Very, very good process…" (WisDOT 2011a).

Further, WisDOT appeared eager to accommodate local needs:

> "It's also nice I think to point out, I think, that the department has had a pretty long and positive partnership working with City of Milwaukee and Milwaukee County … [WisDOT] is in tune and flexible and adjustable when it comes to meeting with our local partners and working on common solutions." (WisDOT 2011a)

Such statements helped to position WisDOT outside the fraught politics of the debate to a position of information-gatherer and arbiter between valued-laden, normative positions.

Bringing these themes together, then, this rhetoric helped to frame WisDOT as an even-handed, neutral, and fair arbiter who deserves to have the authoritative voice in how the bridge ought to be rebuilt, and whose mobility the bridge should facilitate. WisDOT does indeed have a unique voice due to its legal authority over the project, because even though this span of concrete and steel is at the center of the city, it is a state facility. But despite presenting itself as value-free and dispassionate, WisDOT appeared to be already biased toward a particular mobility vision for the bridge through the criteria laid out in the feasibility study. WisDOT explicitly defined five criteria used to evaluate the engineering feasibility of the bike path, the first being: "[t]he ability of the facility to maintain acceptable operating conditions for both existing and future traffic growth" (WisDOT 2011e, p. 10). In other words, predict-and-provide for automobility.

With this, the feasibility of a bike path goes beyond questions of the physical and financial limitations of engineering to become inextricably tied to the operating conditions of automobiles: in order for the bike path to be considered feasible, it may not negatively impact automobile traffic. Further, future automobility must be anticipated and accommodated – it may not be hampered, discouraged, or even partially substituted by some other mode, such as bicycling. This criterion hierarchized mobility, placing driving at the pinnacle, and subordinating bicycling and walking as modes that are allowed, albeit only insofar as they do not impede automobility. This criterion demands that WisDOT works first and foremost to facilitate automobility, and only secondarily to consider other modes. So despite its outwardly neutral appearance, based upon this self-defined criterion, WisDOT fundamentally cannot enter into the politics of the bike path as an entirely unbiased moderator, because a vision of mobility that allows for unrestrained automobility, but one that does not guarantee the mobility needs of non-motorists, is built into the study from the beginning.

Contesting WisDOT's objectivity

At the public meeting, WisDOT presented the study results of five bike path designs, or alternatives, it deemed technically feasible (WisDOT 2011e). Both Alternative 1A at $9.4 million and Alternative 1B at $27.5 million would repurpose one of the three northbound lanes to accommodate the bike path, thereby impacting LOS. The remaining three alternatives, 2A, 3B, and 4, all entailed adding a structure to the bridge rather than repurposing an automobile travel lane. These three alternatives would not impact LOS, but they were by far the most expensive – $76.4, $95.5, and $84.4 million, respectively. Of these five alternatives, then, the focus quickly centered on Alternative

1A. 1B would have the same LOS impact as 1A, but at approximately three times the cost, while the remaining three were so expensive that they seemed publicly and politically untenable. Consequently, the LOS results for Alternative 1A became crucial for the fate of a Hoan Bridge bike path.

Figure 16 – Alternative 1A LOS Presented as Red-Flag and Failing "Grade" in Feasibility Study (adapted from WisDOT 2011e, p. E-5)

To summarize, LOS under Alternative 1A was deemed acceptable for the near-future. However, for 2035, it was predicted to reach LOS E or F during the morning peak hour in the northbound lanes, at which point the flow of traffic was predicted to drop to between an estimated 47.6 and 51.9 miles per hour (mph) – close to the posted legal speed limit of 50 mph (WisDOT 2011e). For all other periods of the day in 2035, LOS was predicted to be within the acceptable range. Simply put, Alternative 1A was presented as having a failing "grade" because it was predicted to cause morning rush hour traffic, in the year 2035, to travel at or near the posted legal speed limit (see figure 16). Confronted with and confused by this result, advocates of the bike path began to contest

the accuracy and relevance of the LOS results specifically, and WisDOT's objectivity

and neutrality more generally.

One specific point of contestation revolved around whether the LOS results

accurately described unacceptable operating conditions on the bridge. Specifically,

advocates objected to the notion that the 2035 LOS for Alternative 1A could be

considered unacceptable, and they challenged this during the question and answer

session:

> Questioner: … I think the speed limit should be considered because 47 miles an hour seems reasonable to me and you're flagging alternative 1A as a traffic impact as a red flag and major concern going 47 mph I don't think that's, that 60 mph that's a reasonable…
>
> WisDOT: I think that part of that is a personal judgment. What we looked at is the department's objective criteria.
>
> Questioner: It's actually the law. It's a speed limit.
>
> WisDOT: I appreciate that but I think that you understand, that if I came in and used a free flow speed of 50 miles an hour the same individuals would criticize - different ones would criticize and say that "oh no - I've been out there and I go like 55 - 60 over the Hoan" – which I don't by the way. Sheriff, Lieutenant if you're listening...[laughter] (Sell 2011 [emphasis added])

This exchange demonstrates that WisDOT, through a standard practice of traffic

engineering (ultimately derived from the empirically-observed 85th percentile operating

speed of automobiles on the bridge [personal interview, local transportation planner]),

had the sole ability to define the parameters of acceptability. To reiterate, the HCM states

that:

> The language of LOS provides a common set of definitions that transportation engineers and planners can use to describe operating conditions; however, it is up to local policy makers to decide the appropriate LOS for a given system element in their community. (TRB 2010, 5-3)

But, in the case of the Hoan Bridge, WisDOT both described operating conditions and acted as local policy maker in determining the appropriate LOS for the facility. So, any assessment that does not follow WisDOT's parameters of acceptability appears, virtually by definition, as personal judgment. This exchange further positioned WisDOT as the objective, apolitical voice of authority in the politics of the bike path.

> Still dissatisfied by the assessment of unacceptability, another person asked:
>
> Questioner: Let's assume I live in the south side now, and I drive on the Hoan Bridge and I actually obey the law, I drive over there at 55 – 50 miles per hour. It is 50 miles per hour, right? Is that correct?
>
> WisDOT: The speed limit is 50 miles an hour on the Hoan Bridge. That is correct – on Interstate 794.
>
> Questioner: So if I've understood your presentation correctly, one of your slides correctly, If I still live there in 2035 and I still drive over the Hoan Bridge at 50 miles per hour, my commute time is exactly the same thing, right? It hasn't changed. And even if I drive it at 60 miles an hour and 20, 30 years from now I'm driving at ten miles less, at 50 miles an hour, that's a total increase in my commute time over the Hoan Bridge of less than 30 seconds. Right?
>
> WisDOT: [Applause from audience]: So, let me see if I can capture the question correctly [Laughter; someone in audience says "there was no question"]. The question was, with regard to the change in speed that is associated with 2035 whether you drive the speed limit or whether you drive above the speed limit *does it represent a modest reduction in speed? The answer is: yeah. The numbers are what the numbers are*." (Sell 2011 [emphasis added])
>
> Ultimately, bike path advocates were unable to align what they believed to be a

"modest reduction" in travel time with the unacceptability marked by a failing grade of LOS E or F. But this seems to have been the only instance in which WisDOT suggested that the bike path would have a modest impact on automobile traffic, which was a belief that was widely held by advocates of the bike path. Proponents of the bike path strongly disputed the unacceptability of the results, as illustrated by my interview with a local elected official, that:

the fact that even the bureaucrats...came up with a report that claimed that you get an F rating for going 47 miles an hour *during rush hour. And the speed limit's 50!* I think that sounds, *that's an A+!* [Laughs] I would think. I just don't know how that came out to be an F, I mean, am I right? … That to me, I still can't wrap my head around. How in the world can we have federal, state bureaucratic standards that would indicate that 3 miles under the speed limit during rush hour? That to me is, if anything, too fast. I mean, that means that we have too much road! I mean, it shouldn't be. During rush hour, maybe *you'll have a little* stop and go. Three miles under the speed during rush hour – *you built too much*! (interviewee emphasis)

However, a number of city traffic engineers and planners also disputed this unacceptability. In a letter from Milwaukee Department of Public Works (2011) traffic engineers to WisDOT, the city engineers state that:

"… LOS should not be represented or perceived as a 'grade.' To minimize the confusion the LOS should be referenced as an index representative of a range of typical operating conditions. … [G]reater emphasis should be made to communicate the short period of time that motorists would encounter … LOS E or F. … [E]ven during [these] short periods, traffic continues to travel at speeds near the speed limit (50 miles per hour)" (p. 1).

The letter concludes by noting that:

"even under … [Alternative 1A] motorists traveling over the Hoan Bridge will continue to enjoy some of the highest levels of service available anywhere on the freeway system in Milwaukee County" (p. 2)

In my interview with a City of Milwaukee engineer discussing the matter, the engineer elaborated on this issue:

… that's part of the problem with the level or service is that people perceive it as, you know it's like A, B, C, you know it's where people do look at it as a grade. You know, somehow if we're at a level of D or something that somehow we're, [laughs], we're not going to pass, we're not going to make it to college [laughs], you know. And I think that when it was put in perspective as to speeds and all of that it just seems that it came across to the public instead of just being these small time-frames that there would have been impacts for, that somehow this facility was going to be operating under these sub-standard levels for a much greater period of time, or significantly, all of the time. And, and that wasn't the case. It was for a very minimal periods and in fact, I think, you know, when it came to the travel speeds, I mean, you know, the speeds on the parkway itself to

the south are much less, and you know, there's no reason why we should be concerned that somehow traffic is now going to be operating at 50 miles an hour, you know, over this, over this facility. And, yeah. You know, I think the way that it was presented sometimes can grab the public's attention in a different way, and you know, again that all comes back to how the agency I guess that is defining that or conducting the study, you know, wants to present it. I don't know that it was presented in a way that gave a good picture of how ultimately it would, it could operate.

The city engineers did not dispute the LOS results themselves. Instead, the crucial aspect that city engineers contested was WisDOT's representation of the LOS results to the public in a way that did not leave room for interpretation of these results as being potentially acceptable.

Judgment and Incommensurable Visions of Mobility

This discussion of acceptability suggests another, broader point of contention in this debate: there were incommensurable visions of mobility at play. While WisDOT's broad vision of automobility was built into the study itself, bike path advocates expressed their own alternative visions of mobility. For instance, in responding to a question about whether these figures represented unacceptable operating conditions, a local elected official I interviewed responded emphatically:

> *Of course* not. It's almost ludicrous to argue that. Because the whole level of service is bogus in my judgment. Some would argue, our former mayor [John Norquist] would argue, that *congestion is good!* You want to have congestion downtown. It means there's activity! It means there's people around, it means people are down, they want to be there. There's nothing more depressing than an empty downtown street. Level of service A all the way! Except it is indicative of a lack of human activity and economic activity, not the presence of it. … The whole level of service criteria has been cleverly designed by the highway industry and by highway engineers and by state DOTs and federal highway administration to basically promote highway expansion. (interviewee emphasis)

Whether at the public meeting, in writings and comments, or in my interviews, supporters of the bike path expressed similar visions in which the automobile has no

exclusive claim to the bridge, and in which congestion is not inherently a negative phenomenon, but a positive sign of a dynamic and vibrant urban place. They expressed visions in which cycling, walking, and transit must, at the very minimum, be accommodated.

As one state elected official I interviewed argued, engineers have a range of tools and technical concepts that lay people really do not understand, and that while these tools "seem even-handed," in reality there is a "deep-seated bias" toward automobility embedded within them. Another frustrated local elected official remarked in an interview:

> [T]he idea is … "Oh, it got a grade F. So no matter what you hippies want – or even, no matter what you crazy Tea Party or you crazy hippies want – we're just going to go with the facts." The *facts* are crooked. The facts are the crookedest part. The opinions have more fact than the facts. At least the opinions state their assumptions and where they're coming from. (interviewee emphasis)

In other words, because the results were presented as scientific fact, it framed WisDOT as unbiased and value-free in contrast to the overtly value-laden desires expressed by non-professionals. As yet another elected official I interviewed put it:

> … any excuse to oppose [projects like this], like … a 30 second loss of travel time in 2035 gives them enough justification to avoid any kind legal sanction. There's no political sanction. The politics was on the other side.

In fact, in most of my interviews, the participants volunteered the fact that this decision was a matter of judgment, and not a matter of fact. The Hoan Bridge was especially interesting in this regard precisely because the results of the LOS analysis were not especially strong. Perhaps surprisingly, this perspective was also expressed by a WisDOT engineer involved in this project. Though this individual stood by WisDOT's neutrality, the individual also described contentious transportation projects as ones involving people with differing values and that these differences are sometimes irreconcilable. Further, the

individual stated that while "traffic engineers have manuals," the other piece of the equation is judgment because it's ultimately "not a black-and-white thing."

In my interview discussion with a WisDOT engineer involved in the feasibility study, judgment was an issue that came up in a revealing way. I presented a range of data to the engineer that suggested the future of mobility in the U.S. may not be the continued growth in automobility that the model assumes. First, there has been a something of a "bicycling renaissance" in the U.S. (Pucher et a. 2011), and Milwaukee has certainly been a part of it. Milwaukee is estimated to have seen a 178.9% growth in bicycle commuting between 2000 and 2012, while the average for the 70 largest cities in U.S. increased 90.1% (League of American Bicyclists 2013; U.S. Census Bureau 2012). As a further example, I mentioned that passenger rail ridership has increased significantly within Wisconsin and in the U.S. as a whole. Amtrak's Hiawatha service between Milwaukee and Chicago nearly doubled its ridership from 2000 to 2013 (Amtrak 2014a), while Amtrak as a whole increased ridership by 44% from 2000 to 2012 (Amtrak 2013). Meanwhile, driving is on the decline in Wisconsin and the U.S. as a whole, such that "we are currently witnessing the largest sustained drop in driving in American history" (Puentes 2013, p. 7). Nationally, total vehicle-miles traveled (VMT) peaked in 2004, while VMT per capita peaked in 2007 (WISPIRG Foundation 2013). This reduction in driving has been particularly strong in 16 to 34-year olds, with a 23% reduction in driving from 2001 to 2009 (WISPIRG Foundation 2013). Further, this trend began before the economic recession and has continued despite some growth in the U.S. economy (Puentes 2013; WISPIRG Foundation 2013). A Brookings Institution study sums up this trend well:

American driving habits are changing. After decades of steady increases the growth in driving is clearly leveling off, and dropping on a per capita basis, even at a time when a vast array of public policies continue to support and encourage driving. Perhaps even more amazing are total aggregate declines in some recent years coupled with drops in licensing, trips, and vehicle purchases. These shifts have enormous implications for public policy in the US. Ample evidence shows that this phenomenon is not limited to the US, but is generally reflected in other developed countries around the world with mature transportation systems. (Puentes 2013; p. 5).

Citing these various figures, I asked the engineer if it is possible that an assumption of continued growth in automobile traffic on the bridge may be inaccurate, meaning that the future of mobility in Milwaukee is one that entails increased demand for non-automobile transportation and a potential decline in driving. To this the engineer responded that while unfamiliar with the data in question, it all comes down to professional judgment. The engineer said that one has to reflect on it and ask, "0% growth, does that make sense?" But no, that did not make sense, the engineer stated. Or, "5% growth, does that make sense?" No, that does not make sense either. Instead, the engineer argued that you want "a vibrant and growing center of the metropolis," and that people need to take seriously the consequences of getting the growth rate wrong. In other words, an implicit assumption in the engineer's statement was that unfettered automobility and economic growth in the city go hand in hand.

However, the fact that so much judgment was involved in calculating and determining the fate of the Hoan Bridge bike path was not what was communicated to the general public. Instead, the message that was most clearly communicated was that an apolitical, neutral agency used objective criteria to determine what was feasible purely from an engineering perspective. So, through the lens of an objective traffic engineering

science and an essentialized automobility, the decision appeared unbiased and unproblematic.

Traffic Data: What Ought to Count?

Contesting the complete hegemony of automobility, bike path advocates expressed these concerns to WisDOT at the meeting. One person remarked:

> …what I found disturbing about your analysis is that it's all based upon sort of engineering, but have you considered at all the benefit of alternative transportation, encouraging the use of bikes? Not only that, but what it does to the county of Milwaukee? Intangible things like that don't seem to be a part of your calculations. (Sell 2011)

And the representative gave a response that would prove similar to answers given to most of these questions:

> OK, the question was, did we consider some of those other things beyond the engineering feasibility analysis associated with this, and the answer is no. (Sell 2011)

Likewise, some asked if WisDOT had considered the impact the bike path would have on tourism and the city's quality of life. Others shared stories of lower-income community needs, and how bicycle amenities can be critical in facilitating their mobility in a healthy and economical way. These questions and concerns tended to receive a similar response – these aspects were viewed as "beyond the engineering feasibility" and were not considered.

Reflecting sentiments felt by multimodal advocates cited in similar research (Patton 2007), it is notable that throughout the meeting, encouraging the use of bicycles is treated as transparently value-laden, as a matter of opinion and personal taste, with these people who support bicycle use conceived of as bike advocates. However, encouraging automobility did not make WisDOT an advocate for cars. Particularly because they were able to deploy tools such as LOS, far from being labeled an advocate or activist, they

simply appeared as "traffic experts." From this perspective, automobility reflects the natural order; it has been essentialized (Henderson 2011b; 2006). In other words, automobility appears unproblematic, as a given, and as the inevitable result of technological progress and free choice. In contrast to this natural order, encouraging non-motorized transportation, particularly if it is viewed as detriment to automobility, appears not as infrastructure provision for an underserved mode, but as a sort of social engineering.

Further underlining this essentialization, not only were issues of local quality-of-life, sustainability and social justice excluded by WisDOT as values, but bicycle safety and travel demand data were excluded from WisDOT's study of the feasibility of adding a *bike path* to the bridge. When asked whether WisDOT, an organization otherwise armed with precise figures for automobile traffic, had data on predicted bicycle traffic on the bridge, the answer was:

> "No. … honestly, with being able to predict bicycle demand for using a given facility, really, it's a very, you know, it's not something that we really have the ability to do." (Sell 2011).

Another person asked:

> "… since one of the concerns about this … will be safety issues for vehicles and for bicyclists, … is there any sort of information base that we could go to that would be able to track bicycle incidents, injuries, accidents, and stuff like that within the Milwaukee area?" (Sell 2011)

And the response was:

> "… as part of our feasibility study, we did not look at specific safety analysis and, I'm personally not aware of [any such database] …" (Sell 2011).

The word "safety" appeared throughout the debate, and was one of the key factors in justifying WisDOT's decision against the path. However, "safety" specifically meant motorists' ability to travel at high speeds with a degree of risk that had been deemed

generally acceptable. Meanwhile, there was no concern expressed for bicyclists' safety. Most illustrative of this is the fact that while safety was used as an argument against putting a separated facility on the bridge (Held 2011, October 5), safety of cyclists who are forced to take a more complicated route through the city mixed with automobile traffic was never a matter of concern expressed by opponents of the bike path, or one taken into consideration by WisDOT.

On the whole, data related to bicycle safety, demand, and potential (e.g. social, economic, and environmental) benefits of a bike path were considered worthy of counting. Yet in contrast, automobile-data counted. Indeed, figures ensuring the safe, efficient, economy-spurring flow of automobiles were essential to WisDOT, as evidenced by their decision that a bike path "…would impair [WisDOT's] ability to provide *safe, efficient travel* and deliver less value than other possible department *investments in economic development* in Milwaukee" (Glauber 2011, December 16, emphasis added).

The Governor's role

One of the significant silences throughout the debate that was identified through my methodology was the role of Governor Walker in the debate over the Hoan Bridge bike path.

Due to his authority over WisDOT officials, the state budget, and his political clout, he was potentially the most important voice in determining the fate of the bike path (Held 2011, October 17; 2011, August 24). Governor Walker was an opponent of a Hoan bike path since his days as Milwaukee County Executive, restating this opposition during his campaign for governor of Wisconsin. Leading up to the 2010 election, both he and his opponent, Milwaukee Mayor Tom Barrett, were asked for their positions on a bike path,

and the soon-to-be Governor Walker reiterated his clear opposition, arguing that: "It's not a safe place for a bike path" (Held 2010, October 29).

However, Governor Walker remained publicly quiet on the fate of the bike path during the 2011 period of debate. Whether WisDOT's study of the project was moot due to the governor's well-known opposition was a possibility that seems to have been mostly overlooked or ignored by many of those involved. However, at least one media inquiry was made to the Governor's Office, with the governor's spokesperson Cullen Werwie responding that: "[t]he Governor has been opposed to this project in the past. That doesn't preclude him from listening to others in the community, evaluating their input, and making a final decision with their input considered" (quoted in Dill 2011, September 2).

Ultimately, the true reason that the path was decided against cannot be conclusively determined based on this research. However, a number of points should be addressed which suggest that Governor Walker likely played a role in the fate of the path, despite his silence on the issue. First, as already noted, Governor Walker was a long-time opponent of the bike path, yet he was crucial in keeping the Hoan Bridge from being downgraded to a boulevard. As one elected official who had been directly involved in keeping the Hoan Bridge from being downgraded stated in our interview discussion:

> …Governor Walker, then County [Executive], … signed on very early to the [*Coalition to Support the Hoan*] and, as governor, supported the Hoan Bridge and in fact saw to it in his last budget that we got the funding for it.

Second, Governor Walker was directly addressed in a wide-range of public letters and lobbying efforts from stakeholders supporting the bike path, including downtown business executives, bureaucrats, and area politicians, making it highly unlikely that he

was unaware of the debate surrounding the project. In an interview I conducted with a

city planner before the decision had been made against the path, the interviewee stated:

> … we have had conversations with numerous CEOs about this project. They've pretty much, to a person they're in support of this project and they have sent letters to the governor voicing their support for this project. So, I feel really confident that the governor understands what the value of doing this, it isn't just a bike thing, and I think that the governor has heard from enough people that he sees that, that he can see that. Now I haven't spoken with him personally. We have had conversations with his office, but I feel pretty comfortable that they see that. However, it's a highly politically charged issue and politics doesn't, people don't always get to do the right thing just because they, it's the right thing to do – on any issue. So, even if the governor felt he had strong, you know, private support for making this decision from some of his key, you know, financial backers, if the broader political view of doing so outweighs that, he's not going to be able to do it. He's not going to be able to say yes.

And, as a local elected official argued in our interview discussion:

> … it was a high-profile enough thing, that I would think he was involved. … [I]f we're talking about a right turning lane on Lake Drive [in Milwaukee], sometimes the mayor doesn't even know about it, much less the governor. … But this was a, you know, a *$300 million* project, one of [Governor Walker's] first big capital projects in the city of the guy who was mayor – by the guy he just beat [in the gubernatorial election] – *that* guy [Tom Barrett] was advocating for this position as were quite a few people in the city. Hard for me to believe that he wasn't aware. I mean, I'm *sure* he was aware of it. (interviewee emphasis)

> Third, most of my interviewees acknowledged, some of them emphatically, that

had the governor supported it, there would be a bike path on the bridge. A local elected

official who supported the bike path, when asked what would have happened had there

been more support from politicians at the state level, responded:

> … the governor would have helped. I guarantee it would've happened ... he has real power in transportation. … The City of Milwaukee has very different transportation priorities than the state of Wisconsin does, yet all the federal transportation resources, or the vast majority of them funnel through the state DOT and the state DOT of course reports to the governor. So yes, the governor has a big impact. You'd have a Hoan Bridge bike trail as we speak if Scott Walker was either in favor or not strongly opposed to it.

Most significantly, a City of Milwaukee traffic engineer stated unequivocally that: "I think that the governor would have had great influence." And, in an interview with an engineer from WisDOT involved in the feasibility study, the individual indicated the governor's potential to impact project development. The interviewee stated that, ultimately, the goal of WisDOT is to be a non-partisan institution which is responsible to the people of Wisconsin. The interviewee remarked that Mark Gottlieb, as Secretary of Transportation of WisDOT, had been charged with making the decision regarding the Hoan Bridge bike path. However, Secretary Gottlieb answers to the governor of the state, the interviewee continued, because the governor is the representative of the people.

Overall, it seems highly likely that the governor had been aware of the question of the bike path on the bridge, and it seems likely that he played a role in deciding the project's fate. Indeed, Governor Walker's spokesperson's response during the course of the debate that the governor would be "listening … evaluating … and making a final decision" (Dill 2011, September 2) on the bike path certainly connoted not only his knowledge of the project, but an active role in deciding the fate of the bike path. Yet despite this, there remains a degree of uncertainty regarding the governor's precise role because the governor did not need to take action for the bike path not to proceed. As an individual involved with City of Milwaukee traffic engineering stated:

> [I]t was one of those projects where it could have gone either way, … the numbers weren't so hard and fast, "absolutely we cannot do that" or "absolutely we should be doing this," … they were kind of somewhere in the middle. And when you have a project like that, if the policies have always been … "we shouldn't have a bike and pedestrian facility on an interstate facility", you know, it's going to lean in one direction, and … it leaned in the direction of not having it. Not accommodating it. If … you had … a policy …or political influence saying, you know, "we really do want to make this happen," it could have very easily leaned in the other direction. And you couldn't necessarily dispute it by the numbers saying,

"no absolutely this is not going to work because this is what the numbers say." You know, they weren't that hard and fast, one side or the other.

Or, as a local elected official asserted, even though the project could have easily proceeded with support from the governor, the governor "may have not needed to get involved, because … the bureaucrats were, are so spiked against, you know, real [multimodal] transportation planning that he *may not* have actually been involved" (interviewee emphasis). Regardless of whether or not Governor Walker took action in this debate, the fact that the potential for a governor to determine the fate of the project underlines the role of values and judgment in determining the future of the bridge, and the fact that this was not simply a matter of a straightforward result of a neutral and objective traffic engineering model.

Discussion and Conclusions

In the case of the Hoan Bridge, alternative visions of mobility challenged automobile dominance of the bridge, but these were unable to be expressed with equal legitimacy using WisDOT's methods, and they clashed with WisDOT's criteria of feasibility and acceptability. However, while WisDOT made appeals to its scientific objectivity and even-handed, apolitical nature, these were contradicted by the facts of the case. Overall, WisDOT failed to communicate the fact that LOS is a tool used to help make a judgment about what operating conditions are acceptable for motorists, and that WisDOT itself defined the parameters of acceptability. WisDOT neither communicated the various weaknesses of LOS to the general public, nor did it make explicit the fact that its particular choice of methods had a goal of unencumbered automobility embedded within it. Although WisDOT made clear to the general public that only quantitative data counted, in practice, within the realm of quantitative data, only the safe and efficient flow

of automobiles counted. Not even rudimentary bicycling data were collected to include in an ostensibly objective and even-handed feasibility study of a bike path.

Throughout the process, alternative visions of mobility were represented as transparently value-laden because an appeal to values was almost the only recourse bike path proponents have; the tools that WisDOT used did not allow bike path proponents an easy way to express their claims through precise quantitative data. Simultaneously, by using these tools and claiming that they are objective, the value-laden nature of WisDOT's study remained mostly concealed and legitimized behind a mantel of science: it was LOS "F" – a failing grade – which allowed the decision against the bike path to appear unproblematic and even-handed to the general public, on the one hand, while also undermining the possibility of legal challenge by the city and bike path advocates, on the other hand.

This research is consistent with a number of arguments made in the politics of mobility literature. First, it underlines the manner by which the drive to achieve optimal LOS for the Hoan Bridge contributed to shaping Milwaukee into an auto-dominated city. Within this vision, the bridge is conceived of as a space of transience meant for the uninterrupted, high-speed flow of automobiles, rather than a space that offers connectivity for bicyclists and pedestrians, and greater potential for place-making. (Henderson 2011a; Patton 2007). Second, even as engineering tools are being developed to better account for non-motorized modes, the continuing bias toward optimizing automobility means that engineers can offer precise quantitative findings which provide authoritative support for designing space for cars (Hess 2009). The experience of bike path proponents in this case study mirrors Patton's (2007) observation that using tools

that fail, in most regards, to consider the needs of non-motorized modes of transportation forces advocates of alternative visions of mobility to pit their mostly qualitative arguments against hard, precise quantitative data that support automobility. Further, this case study is consistent with other research (Henderson 2011a; Hess 2009) in that, even though the local political desire did exist to re-envision the bridge as a piece of infrastructure that facilities the creation of multimodal urban spaces, LOS standards functioned as substantial barriers to change.

More generally, this research demonstrates empirically how the very tools with which traffic engineering is able to measure and conceive of mobility can encourage certain forms of mobility and uses of space, while inhibiting others. And that, while a number of engineers, planners, politicians and activists may be aware of this built-in bias, to the wider public, automobility was generally viewed as "unproblematically legitimate" (Böhm et al. 2006, p. 8), being concealed by a mantle of scientific objectivity. In contrast to ostensibly value-free quantitative data for automobility, appeals to encouraging non-motorized modes were made to appear transparently value-laden. Consequently, this research also demonstrates that, by appearing as a dispassionate scientific pursuit, rather than a discipline with evolving perspectives—albeit with a historical bias toward automobility—traffic engineering still has the capacity to bring an imposing, difficult-to-dispute authority to the politics of mobility. Such an authority stifles politics by not allowing other voices to articulate competing visions of mobility with the same legitimacy as that of traffic engineers.

This research also furthers the discussion of LOS in the politics of mobility research by suggesting that such tools are not simply potential hindrances to alternatives

per se. That is, tools such as LOS have generally been presented as "obligatory passage points," or as unavoidable technical standards (Callon 1986), in the politics of mobility literature (Henderson 2011a; Hess 2009; Patton 2007). This means that certain projects, such as the addition of a bike lane to a busy street (Henderson 2011a), or projects meant to make city streets easier for pedestrians to navigate (Patton 2007), must pass through LOS if they are to be implemented. However, the case of the Hoan Bridge bike path suggests that not only are such standards potential stumbling blocks to change, but the representation and interpretation of tools such as LOS can potentially be as political as the bias embedded in them.

To conclude, it is important to stress that traffic engineers are not comic-book villains, and they necessarily play a crucial role in facilitating our daily mobility – bridges do not build themselves based on good intentions and utopian visions. Rather, the case of the Hoan Bridge helps to underline the fact that how we choose to structure our mobility is ultimately a matter of judgment, and not of fact, and that traffic engineers help to make particular mobility visions into material reality. Judgment and bias toward particular outcomes are inherent in the arrangement of mobility and its spaces because there is no such thing as a correct answer to the question of what vision of mobility is "objectively" best. Consequently, exposing biases in this process will not make transportation projects less contentious, but doing so may lead to a change in the "uneven power geometries" of how the process takes place (Prytherch 2012, p. 295).

Chapter Five
Conclusion

Wisconsin had been on a path toward enhanced multimodality, with a number of non-automobile transportation projects under consideration until 2010. However, the rejection of these multimodal projects and the simultaneous expansion of highways in the state signal a recommitment to the car. In this dissertation research, I investigated two of these projects as case studies which point to this larger rupture in Wisconsin's transportation planning trajectory: the 2010 debate over Wisconsin HSR; and the 2011 debate over the Hoan Bridge bike path. Together, these case studies demonstrate that while certain key stakeholders were highly significant for forging this renewed commitment to automobility, the way that transportation was thought about and valued among the general public in Wisconsin served to legitimize this shift. Further, these case studies suggest that the spatial conceptualizations of transportation projects, the meanings that mobility has within larger discourses, and the uneven weight given to normative values versus ostensibly objective and value-free quantitative data are significant aspects in the politics of mobility.

In sum, these three chapters addressed aspects of contentious transportation projects that tend to slip through the cracks of academic interest to transportation geographers and mobilities scholars. However, these three chapters aimed to contribute to both bodies of literature. At the intersection of these bodies of scholarship is a loose collection of work on the politics of mobility that takes transportation as its primary focus, and which I used to make sense of these recent debates over contentious transportation projects in Wisconsin. On the one hand, these case studies point out that

the fate of transportation projects involve not simply dispassionate debates over quantifiable variables such as cost and accessibility, but entail a range of competing interests, beliefs, normative values and meanings that are inextricably bound up with transportation. On the other hand, they also serve to demonstrate the real-world impact that struggles over transportation have on our collective mobility, and that this impact is as deserving of attention as the more esoteric aspects of mobilities research.

In this chapter, I provide a summary of the findings of this research. Then, I discuss some of the contributions of this research for the literature, as well as for transportation policy, before discussing both the limitations of this research and the possibilities for future inquiry.

Summary of the findings

This research employed a mix of qualitative methods, including semi-structured interviews, a focus group, participant observation, mobile methods, qualitative content analysis, and discourse analysis to investigate both case studies. Chapters Two and Three dealt with my case study research on Wisconsin HSR, while Chapter Four dealt with my case study research of the Hoan Bridge bike path.

In Chapter Two, I investigated the following research question: how did the rejection of Wisconsin HSR come to make sense despite favorable starting conditions and a history of bipartisan support for the project? I found that the rejection of HSR in Wisconsin came to make logical sense through a spatial reconceptualization of the project. Rather than being understood as an extension to Madison and upgrade of the existing and popular Chicago-Milwaukee service, with plans for future expansions from Madison to Minneapolis-St. Paul (all part of a larger regional and national passenger rail

network), the dominant understanding of the project became spatially limited to a Milwaukee-Madison project. As people in Wisconsin increasingly came to understand and debate the virtues of the project as though it were meant to connect only these two nearby Wisconsin cities, many began to doubt the ability of the HSR line to attract sufficient ridership. HSR proponents' arguments regarding the benefits that the project would bring (such as congestion relief, a move toward a more sustainable transportation paradigm less dependent on [foreign] oil, and a jobs creation program), were all undermined by an understanding that a Milwaukee-Madison HSR line fundamentally could not be successful. That is, if no one would ride the train, none of these benefits would accrue, so these arguments were unconvincing. At the same time, this spatial reconceptualization of HSR supported conservative resistance to it as a wasteful and unnecessary project.

In Chapter Three, I investigated the following research question: How did the discourses revolving around HSR in Wisconsin take shape, and how were they made in relation to each other? I found that HSR was taken up as an empty signifier, or as a symbol for a larger cause, in two opposing discourses. For conservatives, HSR was not only resisted because many people doubted whether the state could afford the operational subsidy. Instead, perhaps even more important was that HSR became a symbol of excessive federal government spending and overreach, as well as a perceived threat to anti-urban status quo values that depend on automobility for their fulfillment. The dominance of automobility meant that the meanings of high-speed trains were often made in direct relation to the predominant meanings associated with automobility. This was reflected in what I refer to as an autonormative discourse in three main ways: the HSR

project was subject to greater scrutiny than highway projects; trains were regarded as technologically obsolete; and passenger rail was regarded as a frivolous luxury, while its proponents were viewed as childish. For progressives, HSR did not simply offer a new transportation option; rather, it was taken up as a symbol for progress of moving toward a utopian social vision of an economic and environmentally sustainable transportation paradigm.

For each group, HSR came to unite a series of particular demands to form an antagonistic frontier between competing camps, which constituted the groups as the "real" people of Wisconsin, who were fighting against an antagonist. This was the most clear for conservatives in Wisconsin, for whom this antagonistic frontier divided them, as the real people of Wisconsin, from the federal government, Democratic politicians and HSR proponents, who were viewed as a threat to Wisconsin's values. In contrast, for progressives, it divided them as the real people of Wisconsin from Governor Scott Walker and the newly-elected Republican politicians in the state, as well as political conservatives more generally, who were viewed as a threat to Wisconsin's future. This chapter demonstrates that the meanings of HSR ultimately must be understood within their spatial, historical, and political moment, and that these meanings were crucial for the outcome of the debate.

In Chapter Four, I investigated the following research question: How was the ultimate decision against the Hoan Bridge bike path legitimized and sustained in the face of considerable support for the project? I found that WisDOT's decision against the bike path was legally sustained due to the results of its LOS analysis which described future operating conditions for automobiles on the bridge as reaching an unacceptable level.

However, WisDOT's claims to objectivity throughout the debate, as well as its use of engineering tools that were represented as if they were unbiased and value-free, served to legitimize its decision against the bike path for the general public. Although even the traffic engineers interviewed in this study agreed that determining the acceptability of operating conditions for a given transportation facility is ultimately a matter of judgment rather than a matter of fact, WisDOT's decision came to appear as a factual assessment through the department's representation of itself and its methods as objective and scientific. Consequently, the bias toward automobility that is embedded in tools such as LOS became obscured in the debate, and the results of the LOS analysis appeared as objective facts. This case study empirically demonstrated how the tools and concepts with which traffic engineering engages in measuring and conceiving of transportation can encourage certain modes of transportation and uses of space, while inhibiting others. It also demonstrated that not only do tools such as LOS represent an institutionalized bias toward automobility, but that the manner in which they are represented can also be political.

Contributions for the Literature

This research suggests that greater attention to the normative aspects of transportation among transportation geographers is needed, and most particularly for those who are interested in analyzing the potential of success for a particular project. As this research suggests, struggles over transportation do not simply boil down to disputes over quantifiable variables. As the results of Chapter Two on HSR demonstrate, it is questionable how much of an impact yet more economic figures would have had on the debate in Wisconsin. The economic figures, including an argument that HSR would be a

jobs creation project, were presented to the public in Wisconsin, but were mostly rejected as unrealistic due to a spatial conceptualization of the project that undermined its overall logic. Consequently, Lane's (2012b) suggestion that the job creating potential of HSR be stressed for a more positive public perception of HSR should be understood as an argument that has its limits.

Moreover, as Chapter Three demonstrates, the meaning that HSR had within a larger discourse, while incalculable, is nonetheless significant for whether such a project is rejected, or (for recent major highway projects in Wisconsin) continues as largely uncontroversial. Consequently, the claim that scholars should focus on economics of HSR and actively avoid non-economic arguments would be to miss much of what was meaningful in the Wisconsin debate (Button 2012; Ryder 2012a; Tierney 2012a). In other words, as Cresswell (2006a) has correctly noted: "[t]o understand mobility without recourse to representation [as well as its material corporeality] is, I would argue, to miss the point" (p. 4). At the same time, as the case of the Hoan Bridge debate in Chapter Four demonstrates, reliance on the quantifiable for describing what is or is not acceptable does not make such debates more factual. Instead, this reliance merely serves to obscure the normative judgment involved in planning for transportation and give the illusion of objectivity. Taken together, these case studies suggest that there is a limit to the power of quantitative arguments in the politics of transportation in the U.S.

At the same time, there appears to be a need for more mobilities research devoted to case studies of transportation. The launch of a major HSR initiative in the U.S. and commitment of $8 billion represented "a sea change" in U.S. transportation policy toward HSR that amounted to 17 times the total funding of the ten previous years combined for

such programs (*Transportation Weekly,* 2009, February 17, p. 5). Yet, for such a significant change of trajectory, in the five years since President Obama committed ARRA funding to HSR, there has been an almost total lack of mobilities research on the subject, with Minn (2012b) as a significant exception. Thus, the critique directed toward some scholarly work that has been done under a mobilities banner and has pursued more obscure, esoteric, theoretical questions of mobility and fixity (e.g. Anderson 2013; Bissel 2012; 2010; McIlvenny 2013; McMorran 2013; Straughan and Dixon 2013), and demonstrated less interest in transportation policy and development programs that could significantly impact the daily mobility patterns of millions, is not totally unfounded (Shaw and Hesse 2010). A broader implication of this dissertation research is that productive work can be done at the intersection of transportation and mobilities approaches. This is certainly not to say that there should be a dissolution of the two bodies of scholarship on movement into a single one, but that instead, fruitful work can be done that draws on aspects of both. A transportation-focused politics of mobility framework can be a productive one in exploring contentious transportation projects, as increasing scholarly attention in recent years has demonstrated (e.g. Blickstein 2010; Henderson 2013a; Prytherch 2012; Prytherch and Daly 2014; Walks 2014).

In particular, this dissertation offers a few points that may be of interest to scholars working within this loose collection of transportation-focused politics of mobility research. Chapter Two contributes to a discussion of spatial visions of mobility by suggesting that not only should the normative and prescriptive spatial visions of mobility be of interest (e.g. Henderson 2011b; 2004), but so too should descriptive spatial visions, which I have referred to as spatial conceptualizations, involved in the politics of

mobility. Meanwhile, by investigating the statewide politics of mobility of HSR in Chapters Two and Three, I have taken a different scalar perspective toward interrogating these politics, as much of the research in this field – even in the cases in which a U.S. state was a significant stakeholder (e.g. Henderson 2011a; Prytherch 2012) – has been overwhelmingly focused on the city scale and struggles over urban space (Blickstein 2010; Henderson 2011a; 2009; Weitz 2008; Patton 2007; Prytherch 2012). Further, Chapter Three offers a relatively underexplored method of discourse analysis for discussing the making of meaning in the politics of mobility, one that is less totalizing in approach, and which begins with an assumption of contingency of meaning.

Finally, the findings in Chapter Four on the Hoan Bridge and the impact that LOS had on legitimizing the decision against the bike path further corroborate the need to interrogate technical aspects of transportation, such as design standards, tools of traffic engineering and regulatory frameworks for materializing particular visions of mobility, and, consequently, particular practices and power relations in mobility (e.g. Jain 2004; Cresswell 2006b; Henderson 2011a; Hess 2009; Patton 2007; Prytherch 2012; Prytherch and Daly 2014). Particularly on the question of LOS as a standard, this research has furthered the discussion about such tools that demonstrated that they are not just institutionalized barriers to change in and of themselves (Henderson 2011a; Hess 2009; Patton 2007). Rather, the findings from Chapter Four demonstrated that the interpretation and representation of these tools and the results that they produce are also subject to politics.

Contributions for Transportation Policy

The research questions in this dissertation reflect broader questions regarding how we make sense of transportation and its place in society, that is: How do normative mobility visions become materialized? How do beliefs about the spatiality and purpose of a project impact the debate over it? How are meanings about transportation made, and how are they expressed in a debate? Together, the common thread is that they broadly address the communication of ideas about projects and, relatedly, the public understanding of projects. While these two case studies cannot be used to propose general rules about how to communicate with the public about transportation projects, they do suggests a few areas of concern, with implications for transportation policy and decision makers in terms of how communication with the public is managed.

Chapter Two has demonstrated how a shift in the spatial conceptualization of the HSR project made a seemingly reasonable expansion of a popular and uncontroversial passenger rail service appear as a controversial and entirely separate high-speed commuter rail project between Milwaukee and Madison. As this understanding of the project became dominant in the debate, the HSR service that was actually being proposed was evaluated, both by the general public and key elected officials, as if it were a different project altogether. Consequently, many people perceived the project as doomed to fail. This would suggest a greater awareness is needed of the importance of clearly communicating the spatiality of projects, as well as their function.

Chapter Three demonstrated the contingencies, or the unique and unpredictable circumstances, in the discourses surrounding HSR in Wisconsin. Consideration of these contingencies suggests that the meanings made regarding transportation ultimately cannot

be predicted with any accuracy. For instance, labelling the Wisconsin project "high-speed" (along with others throughout the country), even though it could have been more accurately considered conventional passenger rail by international standards (UIC 2013), appears to have been an attempt among federal authorities to proactively assert that passenger rail is a key piece of a future transportation paradigm, due to a common understanding of the automobile as the pinnacle of transportation technology. However, this language of high-speed seems to have back-fired in Wisconsin. As this research has shown, some advocates of true HSR in Wisconsin felt as if they had been lied to, and became reluctant or unwilling to support the project. Meanwhile, the misleading characterization of the Wisconsin project became an easy and glaring point of critique for opponents to make against the project, and it fit with a conservative narrative of a wasteful federal government imposing undesired changes on the state.

Finally, as demonstrated in Chapter Four, through the language of objectivity, the Hoan Bridge bike path came to be understood as causing an unacceptable impact for future automobile traffic on the bridge. This happened even as the results of WisDOT's LOS analysis put the project well within a gray zone, in which a strong voice, such as the Governor's, would have been enough to push WisDOT's decision in either direction. This research suggests that greater attention is paid to the way that the purpose and limits of traffic engineering's tools and procedures are communicated to the public.

Limitations and future research

One of the limitations of this research is that a number of significant stakeholders, such as Governor Scott Walker or Milwaukee Mayor Tom Barrett, were not available to be interviewed. This was not a major issue for this research, as these individuals

generally expressed their positions publicly on these issues. Perhaps more significant was the fact that certain bureaucrats, such as transportation engineers and urban planners, could not be interviewed. One possible explanation for a reluctance among such individuals to participate was a concern about being pulled into the politics of these projects. This means that certain questions remain unanswered. One example is that, in the case of the Hoan Bridge, Governor Walker's role in WisDOT's decision against the bike path remains unclear. As this research was concerned with the question of how WisDOT's decision was legitimized and sustained, and not the precise reason why it made its decision, I did not pursue this question further. However, future research could make use of a Freedom of Information Act (FOIA) request for the documents and internal communications pertaining to the Hoan Bridge feasibility study. If it were determined that the governor did play a more active role in the decision, it would shed more light on WisDOT's representation of the results of its LOS analysis.

Another limitation of this research is that the perspective of business interests, particularly in the case of Wisconsin HSR, was largely uncaptured by the research design, as business interests generally avoided becoming publicly involved in the debate. Future research could seek to explicitly investigate Wisconsin business interests' lack of involvement, potentially using Henderson's (2013a) framework of the three primary political ideologies of mobility (progressive, conservative and neoliberal) to begin an interrogation of neoliberal interests in the politics of Wisconsin HSR. Further research on the Hoan Bridge bike path could also address the motivation of neoliberal downtown business interests, which supported the path due to what appears to have been an attempt

to make Milwaukee a city which could entice the so-called "creative class" for the sake of skilled-workforce retention (Florida 2002).

Finally, particularly in regard to the Wisconsin HSR case study, a goal of this research was to address the opposite end of the spectrum of generalizability from the majority of transportation scholars. That is, much of the scholarly debate has focused on analyzing the prospects of HSR, as well as providing explanations for its success versus failure, in the U.S. as a whole (Button 2012; Garmendia et al. 2012; Johnson 2012; Levinson 2012; Minn 2012a; 2012b; Perl 2012a; Tierney 2012a; Ryder 2012a). Instead, I sought to expose some of the spatial and temporal contingencies that were significant for determining the fate of HSR in Wisconsin. However, it would be instructive to conduct research into Ohio and Florida in particular to investigate how the politics of HSR took shape there, and to explore what could be learned through a comparison. Perhaps equally informative would be research into the cases of HSR expansion that did not become particularly controversial, such as in conservative Oklahoma, North Carolina, and Virginia (FRA 2014; Newport 2013, February 1; Rhodan 2013, July 30; Saad 2013, January 30). Having a more detailed knowledge-base for how HSR was received throughout the U.S. could provide a useful path in moving forward with research on the prospects for HSR in the U.S.

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Zweifel, D. (2009, August 10). Now's not the time to dawdle on rail. *Capital Times*. Retrieved from http://host.madison.com/ct/news/opinion/column/dave_zweifel/now-s-not-the-time-to-dawdle-on-rail/article_f51e2ccb-45cf-54c2-a882-204a74e6dd68.html

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CURRICULUM VITAE

Gregg Culver
Doctor of Philosophy in Geography
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Education

University of Wisconsin-Milwaukee, Milwaukee, Wisconsin

Ph.D., Geography, August 2014, "Recommitting to the Car? The Politics of Multimodal Transportation in Wisconsin" (Linda McCarthy, Adviser)

Examination fields: Automobility and the politics of mobility, discourse theory, science and technology studies, qualitative methodology

Freie Universität Berlin, Berlin, Germany

M.Sc., Metropolitan Studies, June, 2010, "Rust Belt Biketivism: The Role of Social Movement Organizations in the Development of Bicycle Transportation in Cleveland and Pittsburgh" (Gerhard Braun, Adviser)

Indiana University of Pennsylvania, Indiana, Pennsylvania

B.A. Geography, May 2007
Minor area of study: German
Summa Cum Laude

Study Abroad

2005-2006   **Europa-Universität Viadrina**
Frankfurt an der Oder, Germany

Spring 2006   **Humboldt Universität zu Berlin**
Berlin, Germany

Fall 2004   **Malmö Högskola**
Malmö, Sweden

2001-2002   **Gymnasium Muttenz**
(Rotary Youth Exchange)
Muttenz, Switzerland

Publications

Peer-reviewed publications

> [Accepted with revisions]. A bridge too far: Traffic engineering science and the politics of redecking Milwaukee's Hoan Bridge. In: Julie Cidell and David Prytherch, eds. *Transport and Mobility in the Production of Urban Space*. Routledge

> [Invited forum contribution for special issue, abstract accepted]. Multimodale Verkehrssyteme und automobile Abhängigkeit: das Beispiel Wisconsin, USA. *Geographische Rundschau*.

Short story

> 2009. Victory of the Bicycle. *Urban Velo*, 16: November, pp. 82-83. Retrievable from http://www.urbanvelo.org/issue16/urbanvelo16_p82-83.html

Fellowships, Grants, and Awards

Fellowships and Grants

2010-2014   Mary Jo Read Fellowship, University of Wisconsin-Milwaukee

2013   Mary Jo Read Travel Award (Category 2), awarded to fund dissertation fieldwork in Minnesota and Illinois, University of Wisconsin-Milwaukee

2011-2013   Mary Jo Read Travel Award (Category 1), awarded for travel to the Annual meeting of the Association of American Geographers, University of Wisconsin-Milwaukee

2006-2007   Geography & Regional Planning Faculty Scholarship, Indiana University of Pennsylvania

2003   Certificate in International Education pilot program grant, Indiana University of Pennsylvania

Awards

2012-2013   Outstanding Graduate Student Service Award, University of Wisconsin-Milwaukee, Department of Geography

2011-2012   Special Mention awarded for committed department service, University of Wisconsin-Milwaukee, Department of Geography

2007   Outstanding Senior Academic Award, Department of Geography and Regional Planning, Indiana University of Pennsylvania

2005   Certificate of Award for Valuable Volunteer Service, Indiana University of Pennsylvania

Professional Conferences

2013   "Traffic engineering science and the politics of reconstructing Milwaukee's Hoan Bridge" - Paper presented at Annual meeting of the Association of American Geographers – Los Angeles.

2012   "Automobility and the Politicization of High-Speed Rail in Wisconsin" – Paper presented at Annual meeting of the Association of American Geographers – New York City.

2011   "Rust Belt Biketivism: Bicycle Advocacy and the (Recursive) Role of Geographies of Cycling in Cleveland and Pittsburgh" - Paper presented at Annual meeting of the Association of American Geographers – Seattle.

2010   "Rust Belt Biketivism: Social Movement Organizations in the Development of Bicycle Transport in Cleveland and Pittsburgh" - *Transportation* session chair; paper presented at 17th Annual Mini-conference on Critical Geography, University of Wisconsin-Milwaukee.

Teaching Experience

University of Wisconsin-Milwaukee, Department of Geography

Lecturer:

Summer 2014 Geography 110 - The World: Peoples and Regions (online)
Spring 2014   Geography 430 - Geography of Transportation
Fall 2013   Geography 110 - The World: Peoples and Regions (online, two sections)
Summer 2013 Geography 110 - The World: Peoples and Regions (online)
Spring 2013   Geography 110 - The World: Peoples and Regions (online)
Fall 2012   Geography 110 - The World: Peoples and Regions (online)

Teaching Assistant:

Spring 2014   Geography 110 - The World: Peoples and Regions
Spring 2013   Geography 110 - The World: Peoples and Regions
Fall 2012   Geography 110 - The World: Peoples and Regions
Spring 2012   Geography 110 - The World: Peoples and Regions
Fall 2011   Geography 110 - The World: Peoples and Regions
Spring 2011   Geography 110 - The World: Peoples and Regions
Fall 2010   Geography 110 - The World: Peoples and Regions

Guest Lecturer:

Spring 2012   "Europe and the Cold War: The Geographies of the Cold War and its Legacies in Germany and Poland," in: The World: Peoples and Regions, Department of Geography, University of Wisconsin-Milwaukee, Lecturer, Nicholas Padilla

Fall 2011   "Europe: Shifting Borders, Changing Places, Borders and People," in: The World: Peoples and Regions, Department of Geography, University of Wisconsin-Milwaukee, Lecturer, Dr. Hyejin Yoon.

Other teaching experience

Fall 2005   English Language Teacher, Szkoła Języków Obcych „Progres" (Progress Language School), Sulęcin, Poland

Fall 2004   English Teacher's Assistant and Substitute, Dammfriskolan (Middle School), Malmö, Sweden

2002-2003   German Tutor, Department of French and German (now the Department of Foreign Languages) Indiana University of Pennsylvania

2002-2003   Private German Tutor, Indiana, Pennsylvania

Professional Experience and Development

Summer 2013   Copyright Permissions Assistant, for: Knox, P., J. Agnew, and L. McCarthy. 2014. *The Geography of the World Economy*, 6th edition. Routledge.

2006-2009   Freelance Translator, NTBB Systemtechnik, Zeuthen, Germany

Fall 2008   Bicycle Plan Intern, Pittsburgh Department of City Planning

Summer 2007   Research Intern, Leibniz-Institut für Regionalentwicklung und
                 Strukturplanung (*Leibniz-Institute for Regional Development and
                 Structural Planning*), Erkner, Germany

Spring 2005   Resident Assistant, Indiana University of Pennsylvania

2003-2004   Resident Assistant, Indiana University of Pennsylvania

Departmental Service, University of Wisconsin-Milwaukee

2012-2013   Graduate Student Representative

2011-2013   Lectures Committee, member

2012   Public Relations Committee, member

2010-2012   Represented Department at annual UWM Open House

2010-2011   Panther Prowl 5K Run and Walk, Geography Team
                 Organizer, 2011; Participant, 2010-2011

2010   Assisted in preparations for 17th Annual Critical Geography Mini-
                 Conference, hosted by Department of Geography

Foreign Languages

German, fluent in speech and written language, TestDaF completed June 2006.

Introductory courses taken in: Polish, Russian, Swedish, Dutch, Norwegian, French

Professional affiliations

Association of American Geographers

Pan-American Mobilities Network

Gamma Theta Upsilon, International Geographical Honors Society (2005-2007)