

POLITICS AND FREEWAYS: U.S. CASES OF SOCIAL CONFLICT AND INSTITUTIONAL ADAPTATION

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ABSTRACT

The passage of the 1956 Federal Aid Highway Act marked the beginning of a dramatic transformation of the social and political dynamics concerning transportation projects in the United States. This paper describes and analyzes these changes as they occurred in the Minneapolis-St. Paul metropolitan area in the second half of the twentieth century. We identify three eras of interstate politics: Mega-Projects (1956-late 1960s), Expanding the Debate (1970-1990), and Falling Behind (1990s). These eras build upon and contrast with each other in order to provide a means of analyzing the mix of social, political, and fiscal forces at work in the development and building of transportation infrastructure. They reflect a dramatic change in the expectations of the public regarding interstates as they relate to the urban environment, the citizenry's articulation of its vision and values via direct participation as well as through their elected representatives, institutional adaptation, and increased scarcity of funds for transportation.

1. INTRODUCTION

At the 1939 World's Fair in New York City, five million people saw the Futurama exhibit constructed by General Motors. There were models of roads built through mountains, across wide rivers, and bypassing cities. At a time when travel by car was slow and dangerous, crowds thronged to the vision. For the first time in U.S. history, roads were starting to be viewed as a national public good that should be provided by the federal government [1]. When the demand pent up from war restrictions was let loose in the mid-twentieth century, support for a national system of highways was virtually a consensus. Despite this initial enthusiasm and remarkable political consensus, the story of the construction of the U.S. interstate system through urban areas turned out to be one of painful lessons learned via citizen protests, institutional adaptation, and dramatically escalating costs.

In order to capture and understand the political dynamics of building the interstate system, the larger project from which this paper is drawn included seven cases involving citizen protest of urban routes through the Twin Cities of Minneapolis and St. Paul [2]. The objective was to learn as much as possible about the way in which participants and institutions adapted to changing circumstances and political pressures. The chronological structure of the research was built on the conceptualization of three eras which mark changes in politics and decision-making processes: Mega-Projects (1956 to the late 1960s), the era of Expanding the Debate (1970 to 1990), and finally, the era of Falling Behind (1990s) [3]. For the purposes of this paper, three of the seven cases will be discussed. They are segments of a north-south interstate, I-35, which traverses the United States. This is the busiest freeway in the Twin Cities, it splits in order to go through each downtown (I-35W through Minneapolis and I-35E through St. Paul), and there was

construction, or attempts at it, in each of the three eras. Information was gathered by two primary means: interviews and archival research. In all, 31 interviews were conducted with a variety of respondents whose knowledge could cover all eras under investigation.

Though the interstate program did not get underway until 1956, the Federal-Aid Road Act of 1916 was key legislation because: 1) it required all states to form a Highway Department, 2) it defined the federal-state relationship of state initiative and implementation with federal review and assistance which is the arrangement still used today, and 3) it established the practice of distributing federal highway aid through a relatively independent bureaucracy managed by engineers [4]. These combined to give state highway departments considerable authority and financial power. In addition to the 1916 legislation, there were two important federal publications that prepared the way for the interstate program. The first was *Toll Roads and Free Roads* in 1938, which encouraged the development of a large national system of free highways built to “superior” standards. The report clearly expressed concern about urban congestion, recommending that there should not only be bypasses, but that the highways should pass through cities on their way to connecting major urban areas. It was believed passing through urban areas would be good for downtown business districts and provide a way to remove blighted areas [5]. *Interregional Highways: Report and Recommendations of the National Interregional Highway Committee* in 1944 recommended 34,000 miles of interstates with another 5,000 miles available for bypasses and other urban routes [6]. In 1954, President Eisenhower announced his intention to push for funding for a national freeway system [7].

The pieces came together in the Federal Aid Highway Act of 1956. It committed federal funding at 90 percent, an astounding level of support. The funds were to come from the Highway Trust Fund, which was set up by the Highway Revenue Act of 1956. It also increased taxes on fuel, vehicles and related purchases [8]. The benefits of freeways were seen to be vast: safety, economic growth, national defense, improved business and employment, in addition to the convenience and freedom of mobility for citizens.

2. MEGA-PROJECTS (1956 to the Late 1960s)

Minnesota was prepared to act when the interstate program was funded in 1956. The optimistic mood was evident in Governor Orville Freeman’s statement: “I am convinced that this decade and the next will eventually be found to have been the Era of Highway Development – just as there was an Era of Steam, and an Era of Electricity, and the dawning of the Atomic Era. We are presently at the threshold of a time in which another new element has been completely recognized and will grow mightily from this point. That element is the highway – and I am convinced that what we have seen since the passage of the Interstate Highway Act only sixteen months ago, is only a hint – a foretaste – of what is yet to come. In our office, we are Highway-conscious – because this is the way of the future” [9].

Construction moved very quickly statewide and by 1967 Minnesota had about 360 miles of freeway open to traffic, almost 40 percent of the total planned [10]. Public sentiment continued strongly in favor of the freeway system, supporting an increase in the gas tax to fund building roads [11]. “Freeways seemed like pure paths to progress” [12]. The following case illustrates how the process for building freeways worked in the beginning of the interstate program, with the Minnesota Highway Department (MHD) enjoying relatively unchallenged authority and wielding most of the power.

2.1. I-35W/Hwy. 62: Crosstown Commons

The Crosstown Commons, a now notorious stretch of freeway in the Twin Cities, consists of a one mile segment where I-35W and Hwy 62 are combined. Though it has been a subject of debate since shortly after it opened in 1966, to those who originally developed the plans the undesirable consequences were unforeseen. Not long after Highway 62, or the Crosstown Highway, had been approved, plans were also approved for the construction of I-35W south from downtown Minneapolis. Early plans had I-35W cross the Crosstown Highway at a diagonal, which would have created a triangular piece of land closely bounded by highways. George Barton, an influential engineer, recommended building a one mile common section in order to avoid this. It was his view that the common section would cause the least disruption to the surrounding area [13]. Barton's recommendation gained approval at the city, state and federal levels in 1959 [14].

Because county roads were not seen as major expressways then, policymakers did not believe that traffic volumes on Hwy. 62 would be a problem for the common section for another twenty years [15]. Another factor that contributed to unforeseen difficulties was that the County's overall design and purpose of the Crosstown Highway was "unlike an interstate freeway" because it was intended to "provide access and interchange points...at frequent intervals" [16]. This was at cross purposes to a limited access interstate.

Construction of the common section started in 1963 [17]. There were two citizen disputes associated with it, though neither opposed the construction of the segment. Instead, they lobbied for changes in the design. The first dispute was regarding access to a local business district. The original design did not include a ramp to the district onto a major thoroughfare, Lyndale Ave., due to safety and traffic flow considerations. The local Chamber of Commerce brought the matter to the MHD. They strongly supported building the common section but were adamant that access at Lyndale was necessary for the local business community. They garnered support from the local elected officials and succeeded in getting the design changed despite the problems it introduced [18].

The other citizen protest was regarding Wood Lake along I-35W as it approached the common section. As a leading urban nature center, it was a source of pride for nearby residents. They were concerned about drainage to the lake being cut off, but they continued to support the construction. Due to limited resources and inexperience with community organizing they had difficulty generating much interest beyond the adjacent area [19]. Design modifications were made to protect the area, though some of the lake was transformed to a marsh.

The common section opened in November 1966 [20]. Hwy. 62 was carrying 20,000 vehicles a day at the time it opened, but by late 1967 the Crosstown Commons was carrying 45,000 cars a day. The design was met with almost immediate dissatisfaction. All the agencies involved began blaming others. Despite decades of experience building highways throughout the state, the Crosstown Commons made it clear to all that building interstates through urban settings was distinctly different and much more complex. There were immediate calls to close the Lyndale access, and options for complete separation of the two highways entered the discussion immediately [21]. There were meetings to discuss the problems, typically attended by state and local officials or their representatives, and members of the business community. Discussions centered on the tension between local access, improved safety and flow, and loss of homes. Wider citizen involvement did not occur. This was typical of what occurred for several decades regarding improvements on the Crosstown Commons [22].

3. EXPANDING THE DEBATE (1970 to 1990)

By the late 1960s it was clear that building freeways through urban areas was more difficult than originally envisioned. In an editorial, *The Minneapolis Tribune* commented:

This community—even its specialists—had little real conception of all the changes that lay in store. The freeways took homes and businesses. They reduced tax values in some cities and increased them in others. They changed the pattern of buying and selling. They revolutionized state highway departments. They vastly stimulated city planning. They cut driving time, and thus opened up new locations for homes and shopping centers. They changed driving habits. They provided jobs. They made major controversies for neighborhoods, important policy headaches for city councils and troublesome political problems for governors [23].

Nationwide the 1970s ushered in an era of change, turmoil, and disenchantment with government institutions and officials. The growth of the environmental and women's movements along with continuing action for civil rights brought widespread citizen activism. Increasing disillusionment with the Vietnam War followed by the Watergate scandal on top of economic problems led to great skepticism toward government. In 1976, 70 percent of Minnesotans reported that they felt distrust toward political institutions and the mass media [24].

The interstate program was dramatically affected by these changes. For example, in 1974 the Justice Department ruled that the Civil Rights Act forbids discrimination in any federally funded program, including route selection for freeways. In 1969 the National Environmental Protection Act (NEPA) was passed, requiring environmental impact statements (EIS) to be conducted on all federal construction projects and offered more ways citizens could influence the process. In 1971, 56 percent of people living in the Twin Cities thought some of the state gas tax revenue should be moved from improving highways and used to fund transit [25]. The growing distrust of government institutions, concern about the environment, worries about the energy crisis, and an atmosphere of growing citizen activism made the work of building interstates more complicated and politically charged than anyone ever imagined it would be.

The MHD realized it had to change its ways. This was due to both increased public criticism and actions by the legislature indicating it would no longer allow it to operate as an independent entity [26]. In addition, there were new federal requirements regarding citizen involvement in order to assure full consideration of “possible economic, social, and environmental effects” [27]. While these efforts indicate beginnings of change at the MHD, they did not allay persistent citizen concerns about hidden decision making. There was a growing view that the MHD makes policy decisions and sets priorities, therefore its decision making process should be much more transparent. The unquestioned authority provided to state highway departments in the 1916 Act had become a privilege of the past. The case below shows how this was hammered out via power struggles between the legislature and the MHD. In 1975 the legislature passed a bill that would have been unthinkable in the Mega-Project Era: an interstate construction moratorium. Times had definitely changed.

3.1 I-35E

The development of Minneapolis and St. Paul as neighboring central cities created the need to build a split interstate route in order to serve both central business districts. In

Minneapolis, the construction of I-35W south of downtown occurred early in the interstate program and with relatively little controversy. Such was far from true in St. Paul. The conflict around the completion of I-35E in St. Paul south of downtown became legendary in the local transportation planning community. It was summoned as a warning as highway engineers, planners and politicians adopted the phrase, "We don't want another 35E." Though the section north of downtown St. Paul opened in 1970, the projected estimate that the 3.7 mile long to the south would be completed in 1973 turned out to be off by nearly two decades [28].

The process for building I-35E began in the usual manner in 1964, but construction was halted in August 1972. The city, joined by eight citizens and four neighborhood associations, brought a lawsuit against the MHD and the United States Department of Transportation. The suit stated that construction should stop until an EIS could be prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 as citizens mobilized to make use of the new legislation. An agreement was reached quickly between the Commissioner and the plaintiffs [29].

The citizen group which was central to these activities was Residents in Protest, or RIP 35E, formed in 1969. It was a group of neighbors who lived at the top of the bluff overlooking the planned route for I-35E. Shortly after the group formed, two members went to a national meeting of anti-highway activists in Washington D.C. Speakers addressed the effects of freeways on city neighborhoods, and workshops were offered on how to fight the state highway departments. While they were in Washington, NEPA was passed, giving citizens new tools in freeway disputes. This, along with a fair dose of anger, energized the group. Their research into MHD documents convinced them that the public hearings had inadequate notice and, consequently, few citizens knew what was going on [30]. The new inclination and ability of citizen groups to successfully halt construction was alarming to those whose interests were best served by the building the freeway as fast as possible as well as to those professionals who had never before had their expertise challenged to such a degree. Calls for immediate completion were impossible to meet, however, until the EIS and public hearing process was complete according to the new NEPA requirements.

Many members of RIP 35E were long time, dedicated citizens of St. Paul, and they saw the importance of maintaining a vital downtown. People were uncertain about what effect the new suburban shopping malls would have on urban business districts and did not want to close off access. Pleasant Ave., the proposed route for the interstate, had long been a major roadway in St. Paul, so while they remained opposed to building a freeway in the corridor, they proposed as an alternative a four lane boulevard along Pleasant Ave. with completion of the freeway connection to the interstate system at a different location. A key aspect of this plan for RIP 35E was that there be no direct connection from the parkway to I-94, an east-west route. They offered the proposal in lieu of the possibility of years of legal battles. Since they doubted that the MHD could ever meet the noise pollution requirements, they believed that they would have grounds for litigation. Their proposal won the support of the City Council [31].

About this time the state legislature, in response to citizens' concerns, passed the "moratorium bill," which stopped all building on I-35E for two years (along with two other segments which were also subject to citizen protests). This prompted the St. Paul Chamber of Commerce to file a lawsuit in July of 1975. The suit asked the Ramsey County District Court to declare the moratorium unconstitutional, arguing that only the U.S. Transportation Secretary can halt construction of the federal interstate. In addition to

invalidating the moratorium bill, the suit sought to direct the Commissioner to take all necessary steps to complete the link [32]. In May of 1976 the court upheld the legislation as constitutional, granting the legislature clear power to make decisions about what the MHD could do [33]. Avenues of power and authority which had been in place since the early twentieth century were changing, federal technical requirements in the form of EIS reports were evolving, and the earlier widespread acceptance of freeways had fractured into a wide spectrum of attitudes about both the environment and how to best meet transportation needs.

Meanwhile, legislative representatives of the southern suburbs remained under pressure from their constituents to do their utmost to provide fast freeway access through St. Paul. In the legislature the conflict was primarily between suburban and urban representatives. The parkway concept was gaining wide circulation, however, and at the end of 1977 everyone had reason to believe the situation was moving toward resolution [34]. As so often happens, the devil is in the details, and the optimism expressed by local officials at the end of 1977 was lost in the controversy over the manner of connecting the parkway to I-94. Though the parkway design, with landscaping, a 45 mph speed limit, and restrictions on trucks, had wide approval, the lack of direct access to I-94 did not. According to the U.S. Federal Highway Administration, if there was not a direct connection I-35E would have to either continue on another route or be removed as it was not permissible to have stop signs on the interstate system. It would be possible to consider I-35W the interstate route through the Twin Cities, but approval would have to come from Washington. If the state was to get 90 percent federal funding for the project they had to keep the interstate designation [35].

Though MHD supported the direct connection, citizen activists in nearby neighborhoods remained staunchly opposed to it. From the neighborhood perspective, a parkway with a direct connection would be as detrimental as a freeway due to the likelihood that drivers would exceed the speed limit, resulting in the noise and air pollution they sought to prevent. Understanding that federal funding was a crucial factor in the outcome of the dispute, they appealed to the Secretary of Transportation to fund this non-traditional design [36]. The response from his staff simply stated that what can qualify for interstate funding is clearly defined by law [37]. In December 1981, Commissioner Braun formally selected the parkway design with a direct connection to I-94. In 1982 bills came before both bodies of the legislature to allow the building of this design. The measure passed in March, leaving the determination of whether there should be a direct link with I-94 up to the Commissioner [38].

As promised, RIP 35E, along with other neighborhood associations, filed a lawsuit in the spring of 1983 [39]. They contended that both the final and draft EIS were inadequate and biased because they focused heavily on Pleasant Ave. alternatives making it essentially preordained that Pleasant Ave. would be selected as the corridor. In addition, they charged that the DEIS did not consider the effect of direct vs. indirect connection on the likely observance of traffic speeds. The reduced speed was crucial to reduction of noise, without which they would consider the parkway designation artificial. They sought second opinions by experts to bolster their arguments [40]. In February 1984 RIP 35E lost in U.S. District Court. The judge found that the EIS process had been adequate and construction could proceed. Citing previous litigation, he noted that in order for an agency to be able to function, the number of alternatives considered must be kept to reasonable alternatives which accomplish the purpose of the action [41].

The ribbon-cutting ceremony for the opening of the I-35E link was held on October 15, 1990, twelve years after the first action to halt construction [42]. Members of RIP 35E and other neighborhood freeway opponents were dissatisfied because there was a direct link with I-94. Meanwhile, suburban residents were frustrated because they wanted a high speed freeway through St. Paul, and truckers were disappointed that they could not use the route. Yet the result was undeniably innovative, drawing interest from highway engineers from around the United States. In addition, the court order provided secure protection for the nearby neighborhoods. As recently as 2004 the St. Paul City Attorney's office interpreted the court order as akin to a legal contract to which the state is legally bound. In the shifting world of political maneuvering and evolving freeway design, the fact that this dispute was resolved in court resulted in an unusually firm agreement [43].

Participants viewed the events of this dispute as a battle with clear winners and losers, yet they assess the results differently. One retired MHD administrator observed that, "35E is important because it shows the effects of citizen activism. The citizens won" [44]. This is due to the long delay and unconventional freeway design. Yet a former member of RIP 35E stated forcefully, "We lost" because the direct connection to I-94 was built [45]. The institutional structures created for citizen participation did not invite them into the design and development process but rather put them in a simplistic yea or nay position that unintentionally set up a combative dynamic. When the participation process proved unsatisfactory they took their concerns to court, another combative situation. Increased distrust of government, the reality of the damage existing freeways had already done to neighborhoods, and emerging environmental concerns moved citizens to exercise what they took to be their democratic rights to participate in decisions made which directly concerned them. Another member of RIP 35E put it this way: "The thing that was so offensive was how government ignored us....It was terrible to see how government closed ranks to shut out citizens" [46].

4. FALLING BEHIND (1990s)

There was another change in atmosphere and citizen attitude into the 1990s. The mood nationwide was that "things have gotten pretty seriously off on the wrong track" [47]. Governors had some of the lowest job performance ratings in years as federal funding was cut and responsibility for paying for many programs was transferred to states just as they were suffering from the effects of the recession [48]. The famous Minnesota quality of life was starting to erode [49].

Concurrently with this, the situation regarding freeways also changed. There was much conflict during the previous era. Nevertheless, freeways did get built. There was a functional freeway system in place. Though large total amounts of money continued to be spent on highways and other travel related items into the 1990, investment in transportation infrastructure in Minnesota started to fall behind the rest of the nation. For a complex array of reasons, including greater competition among scarce resources, anti-tax sentiments, and a vague disillusionment with government, public support for investments waned even as the costs of urban transportation projects continued to increase dramatically. Many transportation professionals and well-informed citizens started to believe that as a region we were falling behind in meeting transportation needs [50]. The following case shows sophisticated citizen activism making use of political tools which had become familiar by this time, adaptation by transportation professionals, followed by the effect of falling behind on investments in our transportation infrastructure.

4.1 Expansion of I-35W

Construction of I-35W south of downtown Minneapolis began in 1959, the route opened to the downtown business district in 1967, but only two years later MHD officials announced the freeway had exceeded the projected 1975 capacity of 5,900 vehicles an hour, reporting a traffic count of 6,078 from 7:00 a.m. to 8 a.m. [51]. In order to address the need for greater capacity in the corridor, in 1975 the Minnesota Department of Transportation (Mn/DOT) submitted a request for Federal Aid Interstate (FAI) funds to add two lanes to I-35W from downtown Minneapolis south to the rapidly growing suburb of Burnsville. Despite the demonstration of need, the likelihood of acquiring federal funds was considerably less certain than in previous eras. The Federal Highway Administration viewed the interstate program as a one-time, initial construction only program. Their view was that the use of High Occupancy Vehicle (HOV) lanes and bus service to improve the ability to transport people was of increased importance [52]. The change in emphasis in the federal perspective became clear locally when the request for funds was denied due to the absence of HOV lanes in the proposal. Though funds were made available for further study, Mn/DOT staff were acutely aware that funding was not assured for any alternative [53]. In 1983 Mn/DOT announced plans to go ahead with the environmental impact study process. All options that received serious consideration were multimodal, incorporating bus or HOV lanes, and/or light rail [54].

The political status of the project was beginning to heat up at this time. Concern among citizens along the corridor in south Minneapolis started building as early as the fall of 1983, when elected officials began hearing from their constituents. The memory of difficult experiences from the first round of construction of I-35W remained alive in the community [55]. Residents and elected officials from Minneapolis reported a sense that there was some hidden part of the decision making process that they could not affect. A retired official from Mn/DOT described the mood among Minneapolis residents at the time: "Based on years of conditioning local people do not trust MnDOT" [56]. At the same time, in the southern suburbs elected officials were feeling pressure from their constituents to make relief from traffic congestion on I-35W a priority [57].

In 1988, concerned citizens from the 14 neighborhood groups along the I-35W corridor in south Minneapolis formed an organization called the Neighborhood Transportation Network (NTN). The group provided a structure for local citizens who had felt concern about I-35W plans for several years, and provided a way to share information and coordinate activities. NTN was distinctive because it had a commitment to come up with an alternative plan of their own. They defined their purposes as: "...to investigate, analyze, and respond to Mn/DOT's plans, to develop recommendations for alternate changes that could improve the efficiency and people-carrying capacity of I-35W, and to influence alteration decisions." In an effort to do this, they created a forty page document called, "Minimum Build/Maximum Management Alternative for Alterations to I-35W." The report viewed plans for improving I-35W as a debate about the function of the freeway and the focus of the problem, asserting it should be about people rather than cars with effort directed toward changing travel patterns rather than accommodating them. In addition, NTN requested that their Minimum Build/Maximum Management proposal be selected for evaluation in the EIS [58]. They were making a concerted effort to be involved in the design process. The NTN recommendations received varied responses. It received cool reception from highway planners, while elected representatives from Minneapolis announced their determination to ensure serious consideration of the NTN proposal in the EIS process [59]. There was widespread agreement among all involved that transit should

be a part of the design; the point of contention was whether additional general purpose lanes should be added.

In July 1989 Commissioner Len Levine announced the reduction in the number of alternatives in the EIS process to four [60]. Members of NTN were angered by the announcement because their alternative had been dropped. There was increasing tension regarding the selection of alternatives for all involved. Bob Morgan, Transportation Planning Engineer for the City of Minneapolis and a key liaison to the City Council, provided an account of the process for narrowing the alternatives in a memorandum to the Mayor and the City Council:

Local elected officials south of Minneapolis were not invited to the Commissioner's briefing and learned of the Commissioner's decision from their staff Wednesday afternoon, July 19, following the Project Advisory Board (PAB) meeting. At the PAB meeting local government staff was advised that MnDOT and the Metro Council, working with the Project Management Team, had developed these major revisions. We were advised that the Commissioner had announced these decisions to a group of elected officials at a meeting that morning. We were further advised that the press had already been briefed. Several thousand of the I-35W Flyer newsletters had already been printed, boxed, and were available to us for distribution. This was the first time that I or staff of the cities of Richfield, Bloomington, Burnsville, or Hennepin or Dakota County had heard of this decision....MnDOT has managed in one day to ignore the Mayors and local elected officials of Richfield, Bloomington, and Burnsville; to make major decisions in the EIS while excluding all local government staff; and to lose any developed credibility with active citizen groups at least in Minneapolis [61].

All legislators representing the affected areas in Minneapolis objected to the process used to reduce alternatives and called for reinstatement of the NTN plan [62]. Due to political pressure, Mn/DOT continued to work with NTN into the summer of 1990, but in April, 1991 announced it was going to drop the plan from the study. They stated that the plan was unsafe and did not warrant further study [63].

In the spring of 1992 attention turned to the public hearing, which was expected to have unprecedented turnout, and it did not disappoint. There was an overflow crowd estimated at 3,000. Distrust of Mn/DOT was evident in many of the speakers' comments. One theme of the evening was that the social justice implications of the expansion had not been fully explored even though it was clear that poor and minority communities were going to be disproportionately harmed by the construction. It was also asserted that policy makers should examine the history of the effects freeway construction on neighborhoods and weigh that as part of the decision. Elected officials from southern suburbs argued for the necessity of more lanes to serve their communities, stating that they simply need relief from congestion for their growing communities. At six hours it retains the distinction of being the longest public hearing held in Minnesota [64].

On January 12, 1993, the long-awaited decision was announced by Commissioner Denn. He selected an unprecedented multimodal design which included: 1) LRT on the freeway median with a feeder bus system; 2) an HOV lane achieved by building new dedicated lanes and converting some existing lanes; 3) addition of one general purpose lane in the southern portion; 4) separation of I-35W and Crosstown/Hwy. 62 (Crosstown Commons); and 5) rebuilding of the I-94/I-35W commons with stacking of the mainlines [65]. The overall cost was \$1 billion, and right-of-way acquisition was expected to involve about 70

businesses and 1,000 homes. It was the first time a Commissioner had ever selected a plan that included light rail. To assist with obtaining federal funding, Denn asked the legislature to form a financing study committee [66].

There were mixed responses to the announcement, but the city level political situation was soon to be unimportant. Gas tax revenue had become inadequate to pay for major road improvements, and the Governor, along with a majority of state legislators, was unwilling to raise taxes. It was clear it would not be possible to move forward on any big projects. The funding panel formed at Commissioner Denn's request to study funding for projects declined to make any recommendations [67]. In an October 1995 speech to the Minnesota Transportation Alliance, Commissioner Denn spelled out the situation in bleak terms:

For metro area transit, service will continue to be cut and fares increased without additional financial support from the state Legislature. For outstate transit, funding shortages will delay implementation of service for all counties in the state and will limit, in many cases, service currently being provided. For our highway system, under current funding levels, we can maintain and preserve the existing system in approximately its existing condition for the near future What we cannot do is address the major capital improvement needs facing the system today, and the capital needs that will grow in the future [68].

The politics of urban transportation projects had run into the new reality of changing priorities, less public commitment to investing in infrastructure, and unwillingness to raise taxes. The citizens in NTN had inserted themselves further into the design process than had occurred previously, yet further development of structures for citizen participation were halted due to lack of funds.

5. DISCUSSION

In building the Interstate Highway System, we displayed ourselves in all our glory and our meanness; all our vision and our shortsightedness. We showed democracy's virtues and not a few of its vices. The highways represent the height of American technological achievement; but no one, not the engineers, the planners, the builders, not even the naysayers – those who opposed the highways – understood how the roads would ripple through the culture [69].

Building freeways is an inherently political enterprise. As such, these projects were and are subject to the myriad factors which affect our political system as a whole. Politics and governance in the United States changed dramatically in the second half of the twentieth century, and the interstate program was inevitably deeply affected by this. Not only are freeways inherently political, they are also inherently historical. The cases clearly show that history had a powerful effect on the dynamics of the projects and policy debates that followed. The way in which issues were framed in later disputes clearly reflected a sharp awareness of previous episodes. Those who wished to get freeway construction completed as quickly as possible summoned the specter of previous delays. Freeway opponents called upon the memories of displacement and splitting of neighborhoods, often stating the view that "We have suffered enough." Understandings of what has occurred contribute significantly to how participants determine which values are at stake. This dynamic does not stop. Actions we do or do not take and words we do or do not speak

now will also work their way into how transportation problems are understood. Thus it is useful to consider what history has to teach us thus far.

5.1 Federal Government

It is difficult to overstate the importance of federal legislation and policy to local political dynamics involving interstates. Since, strictly speaking, only states and local governments actually build highways, this is an interesting dynamic. Federal policy shapes expectations for all parties, which in turn affect the politics that determine future policy. The Highway Act of 1956 launched a unique period in the development of urban infrastructure. The confluence of public support, economic growth, and rapid suburban development led to a remarkable pace of construction. The federal government played a major role in shaping local politics by setting the terms in which it would take place. The provision of 90 percent federal funding for interstates determined much because it made building interstates a priority for all state highway departments. In addition, NEPA had an enormous effect on the development of freeways. It signalled, and required, a broadening of how freeway planning should proceed and which factors ought to be considered. It had significant impact in the Twin Cities, as it did nationwide. Members of RIP 35E and NTN used the environmental review process as a means to try to force consideration of other possible and designs.

5.2 State and Local Government

During the Mega-Project Era elected officials viewed the expertise of those in the Highway Department as appropriate for making most decisions about the interstate program. As the political climate changed, however, in the 1970s the state legislature intervened at a new level of specificity, including route alignment and design, to the point of enacting a construction moratorium. Citizens turned increasingly to their elected officials because they believed that interacting directly with MHD was not likely to result in significant changes to proposed plans. Elected officials, some of whom were not previously involved in transportation issues, in turn responded to their constituents' concerns. This expanded role of the legislature is likely permanent.

City governments have been and remain deeply involved in freeway planning. Their formal role has changed via the development of municipal consent law, but regardless of the legal structure, the ability of elected city officials to influence members of the legislature remains a powerful political tool. Conflict over freeway construction often includes tension between central cities and suburbs. These disputes focus on the question of who bears the costs and who benefits. How does society balance the diffuse, small benefit to many commuters gaining several minutes in their travel time against the concentrated costs borne by some city neighborhoods? This is a trade off that has become increasingly difficult to judge. At the beginning of the interstate program a benefit was being allocated to everyone because the need for improved highways was great and the costs to specific neighborhoods were not yet well understood. In recent decades neighborhood revitalization and small scale economic development initiatives have taken the place of previous policies promoting slum clearance, which is now often viewed as a social injustice. Neighborhood revitalization efforts are more likely to create conflict with plans to build or expand freeways as vibrant neighborhoods become more widely valued. As the system and its political environment matured, the concentrated costs became sharply felt and more clearly understood while the benefits tended to stay diffuse.

5.3 Citizens

Though citizens expressed concern about projects from the beginning of the interstate program, their interaction with interstate projects changed dramatically throughout the late 20th century. New tools provided by NEPA, along with a changing attitude about the relationship of citizens and their government, ushered in significant increases in citizen influence. The history of the interstates in the Twin Cities illustrates the complexity of direct citizen participation in the policy process regarding the development of infrastructure. In our political culture, nationally and perhaps especially in Minnesota, the legitimacy of our political institutions depends on the ability of citizens to engage in meaningful participation which affects the course of events. Citizens increasingly expected to have an influential voice in the decision making processes affecting their area. Citizens involved in these cases displayed unusual levels of civic engagement, and in some cases extraordinary commitment. In order for such participation to be meaningful, there must be an ability to affect the agenda rather than simply respond to choices offered by professionals. People accept policies and laws when there is some plausible, albeit remote, connection to popular consent. From the broad perspective of how our system of governance ought to work, such participation is desirable.

This is not to say the institutional structures present in the cases captured citizen effort in the most constructive way. The cases show that there are problems with participation. Huge transportation projects maybe difficult for people to understand in much detail. When citizens believe they are shut out of the process they may take an adversarial approach. Public hearings have been contentious and verging on uncivil at times. A tremendous amount of learning occurred in the decades under study, however. Conflict and debate between citizens has the potential to bring out relevant information needed to make the best decision within a given set of constraints. Jonathan Gifford observes that “Americans today are far more skeptical about the value of new roads, bridges, and sewage treatment plants – especially when they are located in their own backyard. Their faith that decisions about public works can be safely left in the hands of public officials, engineers, and other technical experts is gone.” However, the changes wrought by this change can be viewed as beneficial to society because the awareness of the human, social, and environmental costs have been incorporated into the decision making process [70]. The cases show an increasing depth of citizen participation within a given institutional structure. There is no indication that this trend will reverse in the near future.

5.4 The Role of Experts in a Representative Government

It is difficult to think of a policy arena which more clearly illustrates the difficulties inherent in figuring out the role of experts in a democratic system of governance than transportation. “At issue here is the place of experts in an American society that has faced the occasionally contradictory demands of democratic traditions and technological change” [71]. Democracy was devised to avoid tyranny, not to find solutions to increasingly complex societal and technical problems, yet modern life requires that we find a way to meet our needs for technical expertise and government responsiveness simultaneously. Political systems must be able to allocate resources according to societal values, and do this in a manner that most members of society accept as binding [72]. Legitimacy comes from the presence of multiple ways for citizens to participate, and which actually lead to an effect on decisions, albeit indirect. At the same time, building safe, workable transportation systems depends on the expertise of engineers, planners and other professionals.

In the cases it was often not clear what the purpose of the citizen participation was. Participants differed on what the possible results of participation might be, and entered the process with widely varying expectations. What range and depth of participation is expected by professionals? By elected officials? And what do citizens expect their participation to be able to do? The ways in which citizens interact with professionals in government have multiplied. The EIS process opened this up in 1969. One of the great lessons of the civil rights movement is that going to court can be a powerful tool for citizens, and freeway opponents applied this lesson. Public hearings, long the mainstay of public works projects, did not serve particularly effective roles in any of the cases in this study. When those involved do not share an understanding of what public participation can and should produce frustration is a likely result. Clearly, expertise on a wide range of matters is crucial to managing the functions of modern life, but it does not follow that citizen participation should be relegated to a late stamp of approval.

5.5 Tensions and Mismatches

There are three areas of tension or mismatches that are apparent in the cases: time frame, geographic space, and problem definition. Major transportation infrastructure projects take decades from conception to execution. An institution, like a department of transportation, can and must stay with a project for these extended periods of time. Citizens and the elected officials who represent them, on the other hand, tend to have a much shorter time frame. It has typically been the case that residents do not learn of a nearby construction project until it is fairly far along in its development. When do decisions get made and when is commitment to a design felt by the agency? How do citizens interact with these frames of reference? These are questions which are and have been undergoing examination, but the basic problem of difference in timeframe between DOTs and politicians and their constituents is to some a degree a continuing and unavoidable tension. Nevertheless, the design process could incorporate citizens earlier than was done in the cases as a way to fulfill the requirements of legitimacy in public decision making regarding transportation infrastructure.

The difference in geographic frame of reference is also apparent in the cases. Mn/DOT is a statewide agency which must have a broad view of transportation needs. Cities and neighborhoods attend to the concerns in their local area. Both of these perspectives are appropriate, and it is unavoidable that they will sometimes lead to conflict. The difference in geographical perspective is one of many fundamentally different perspectives that operate generally in American politics since it is built into our federalist system. Such differences occur as a matter of course in American politics across many issues. Though difference in the geographic frame of reference between different bodies in our existing political structure combined with the scale of the projects sometimes adds to conflict, it is not at all clear that focusing on this as what ails our transportation system is the right diagnosis.

Politics are especially difficult when there is not agreement on what the problem is nor on which values are at stake. This differs among experts in different professions as well as between experts and the public, and again with elected officials. Among professionals problems tend to be defined in terms of their expertise. Citizens may define problems in terms of a broad social movement, such as the environmental movement, or narrower concerns focused on their neighborhoods, or both. If the perspectives are far enough apart it is not even possible for meaningful interaction to occur. For instance, when citizens raise their concerns about social injustice at a public hearing held by transportation professionals they define a construction project in terms outside the purview

of the presiding officials who are not in a position to respond directly. Elected officials tend to be subject to multiple pressures and have resources they can use to gather information, so they are at least in a position to have a broad perspective, but when an issue becomes highly salient to their constituents they respond to that. With so many perspectives, it is not surprising that urban freeway disputes have been embroiled in disagreement over problem definition. For example, in our current ambiguous state of transportation policy it is not necessarily clear when congestion is a condition of urban life and when it is a problem. The Center for Transportation Studies "Access to Destinations" research currently underway examines whether measures of accessibility are more meaningful than traditional measures of congestion based on speed of travel [73]. As Anthony Downs points out, congestion is a global problem in large or growing cities. Maybe it is simply a characteristic of a successful urban area [74]. Of the three tensions that emerge from the cases, problem definition is the one which can be alleviated most effectively by political adaptation, though it is also the most potent as it touches our fundamental convictions.

6. CONCLUSION

The Mega-Projects Era was unique in the development of urban areas. The multiplicity of factors poised to support this effort was unusual, and they also combined to give unquestioned authority to state highway engineers. In the mid-twentieth century popular attitudes toward government in the U.S. were relatively uncritical, and expertise went unquestioned. Decisions regarding interstates were made using the rationality of a cost-benefit ratio familiar to transportation professionals. The turmoil and changing perspectives attendant to the social movements of the 1960s and 1970s, however, made this arrangement increasingly unacceptable as the sole means for making decisions about matters as visibly and concretely public as freeways even as increasing complexity required greater expertise.

During the era of Expanding the Debate not only did citizens have new tools provided by NEPA, and more knowledge about organizing communities, but they strove to change the nature of the debate by redefining construction projects in terms that incorporated values beyond mobility and business interests. With a skeptical eye toward government, disputes in this era made the meaning of construction projects open to question, an aspect that may be characterized as modern, extending beyond the cases. In addition, following the demands of citizens, the legislature expanded its role dramatically when it demonstrated its willingness to stop freeway construction and determine route selection and design, providing an outlet for emerging constituent concerns. The political process became more visible and complex, and this is how it will most certainly stay, not only in Minnesota but nationally and perhaps beyond.

Our current situation is one of ambiguity. The funding formula of the interstate program made the financing of projects "appear costless, or nearly so" to the local community [75]. As this relatively painless way to fund freeways has ended and increasingly expensive transportation systems have become the new standard, finding the political will to make necessary investments is a tall order. We are still defining our current situation, and perhaps more consciously so than in previous eras. What is congestion? Minnesotans, like many Americans, are strongly attached to their cars and expect unlimited mobility. Is that a reasonable expectation, especially as it comes increasingly in conflict with other needs? What is a just allocation of resources and how do we decide? If there is no money available will there be innovation, or does the innovation have to come first? Citizen participation is now a permanent part of transportation projects. Should some of

the aspects of context sensitive design or other innovations be institutionalized to insure citizen participation occurs early enough to be a part of the definition of the problem and continues in a meaningful way?

The interstate program was a breakthrough policy change, which has fifty years later settled into the normal incrementalism of governance in a large industrial democracy. Minnesota's quality of life, or at least the transportation facet of it, is in a period of uncertainty. The cases show that institutional change followed intense pressure from citizens, some of whom who reevaluated their relationship to government as well as the kinds of broad implications of urban freeway construction. A former mayor who now serves on a branch of the regional governing body simply states, "We have to build neighborhoods instead of roads" [76]. Though most involved in the construction of urban interstates would agree that we have learned the importance of this, whether we can agree on what that means and have learned enough to do that remains untested. This reflection on our history is an effort to marshal our collective learning so that we may move toward a sustainable quality of life with more surety and knowledge.

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