

Suburban bypass roads and interjurisdictional politics: a case study

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Abstract

This before and after case study examines the impacts of a suburban bypass road in New Jersey where the impacts are embedded in a broader regional context. Unlike many other studies that have focused on rural bypasses, this study found that in a fragmented jurisdictional context, such as New Jersey, where a bypass is designed to relieve traffic in one municipal centre but passes through the jurisdiction of another municipality, competing municipal interests can yield unforeseen traffic flows, land use developments, and economic activities. Planners of bypass roads need to be cognisant of the possibility of unforeseen and induced outcomes that can jeopardise the intended goals of a bypass project.

Most studies of bypass roads in the United States have focused on rural bypasses. Few have examined bypass roads that pass through suburban communities. Unlike many rural bypasses, suburban bypass roads often pass through more than one jurisdiction. Because of the incorporated geography of the suburban environment, the use of suburban bypass roads is likely to be set by the interjurisdictional relations among the affected communities. Their impacts affect not only the bypassed community, but also the communities through which they pass. An examination of the impacts of suburban bypass roads, thus, needs to take into account interjurisdictional politics.

This before and after case study examines the impacts of a suburban New Jersey bypass road that are embedded in a

broader regional context. At the outset, we summarize the literature on bypass studies, emphasizing that few studies have examined the effect of interjurisdictional politics on the impacts of bypass roads. The methodology and background of the study are then described briefly. In the fourth section, the outcomes are discussed in relation to four analytical categories - traffic flows, land use development, economic revitalisation, and social and community development. In the next section, we discuss the role of interjurisdictional politics in mediating the impacts of the bypass road. Finally, in the concluding section, we note that the outcomes of a suburban bypass road can jeopardise the intended goals of a bypass project.

Literature Review

Bypass impact studies in the United States have focused almost exclusively on rural communities in states such as Texas, Kansas, Iowa, Wisconsin, Kentucky and Minnesota. For the most part, these studies have focused on the impacts of bypass roads on traffic patterns, land use development and economic activity. While several studies concluded that the overall impacts were positive, a number of the specific findings were mixed. Few studies examined the impact of interjurisdictional politics on bypass roads.

For the most part, bypass roads are intended to reduce or divert traffic from a congested downtown route. Interestingly, some traffic studies have found that traffic volumes in the bypassed route actually increased after the opening of the bypass

(Collins & Weisbrod, 2000; Snyder & Associates, Inc., 1999; Yeh, 1998). One study also found that where a bypass lengthens a journey, many long distance travellers, especially truck drivers, still prefer the old highway route through the downtown (Collins & Weisbrod, 2000).

While some land use studies have argued that an increase in commercial or industrial uses along either the old highway corridor or the new bypass corridor is a positive outcome (National Cooperative Highway Research Program, 1996), negative impacts can result when sprawled, low density commercial and residential development require additional infrastructure investments and/or cause environmental degradation (Collins & Weisbrod, 2000). Another study pointed out that a new bypass is unlikely to stimulate new land use development without supporting infrastructure (Otto & Anderson, 1995). Studies have also noted the importance of proactive planning either as a means for controlling development or promoting development (Collins & Weisbrod, 2000; Gillis & Casavant, 1994; Yeh, 1998).

Studies examining the economic impact of bypass roads have distinguished between the overall impact, the impact on the old highway route and the bypassed downtown, and the impact on the new bypass corridor. A number of studies found net economic impacts to be relatively small (Burrell, 1996; Collins & Weisbrod, 2000; Snyder & Associates, Inc., 1999; Yeh, 1998). Studies in Iowa and Minnesota found no significant impact on retail sales in bypass communities (Otto & Anderson, 1995; Snyder & Associates, Inc., 1999). In contrast, a report that synthesised the findings of a number of studies reported that employment and overall business activity, as measured by gross annual sales, grew more rapidly after the opening of bypass roads (National Cooperative Highway Research Program, 1996).

The perception of bypass impacts also varied according to location. “New businesses along the bypass were most positive about the bypass and its impact on sales, while businesses along the old route and away from the downtown CBD were least positive and reported that business activities were adversely affected” (Otto & Anderson, 1995). The same study reported that opinions were also affected by duration of ownership (those in business longer were more likely to favour a bypass), whether the community was a county seat (merchants in a county seat were more likely to favour a bypass), and the distance from the bypass to the CBD (the greater the distance, the less likely merchants were to favour the bypass).

Individual businesses located on the old highway route and in the downtown experienced either positive or negative changes after the opening of bypass. A number of studies found that sales at gas stations, restaurants and other “traffic-serving” businesses located along the old highway route were likely to be adversely affected (Burrell, 1996; Kockelman & Srinivasan, 2002; National Cooperative Highway Research Program, 1996; Otto & Anderson, 1995; Snyder & Associates, Inc., 1999).

The impact of bypass roads on downtown areas is often dependent on the strength of the downtown’s business identity before the opening of the bypass and the ability of the bypassed community to adapt to new economic circumstances by changing the focus of activity (Collins & Weisbrod, 2000; Gillis & Casavant, 1994; Otto & Anderson, 1995). For example, researchers in Texas found that in six out of ten case studies downtowns prospered because they succeeded in changing from retail/service centres to downtowns specialising in specific activities, such as tourism and legal services (Handy, Kubly & Oden, 2002).

Studies that examined the economic impact on the new bypass corridor have

found that development along the corridor tended to be new businesses rather than the relocation of existing businesses and that development tended to concentrate at the bypass interchanges (Thompson, Miller & Roenker, 2001). The Texas study found that many new businesses along the bypass corridor were national or regional chains, and were less likely to purchase products and supplies locally (Handy, Kubly & Oden, 2002). On the other hand, researchers in Wisconsin found little evidence that “big box” retailers were attracted to bypass facilities or interchanges (Yeh, 1998).

Few studies have examined in depth the interjurisdictional relations in those cases where a bypass is located in more than one community. One study noted that where a bypass crosses a number of jurisdictions, competition for tax-producing retail and other commercial businesses can limit the effectiveness of regional planning controls used to prevent sprawl (Collins & Weisbrod, 2000). In the Wisconsin study, the authors noted that where bypasses were located in more than one community, they created opportunities for multi-jurisdictional plans (Yeh, 1998).

Methodology

This study built upon this research by examining the impacts of the Route 133 Bypass, which bypasses the Borough of Hightstown. We used a quasi-experimental case study approach to evaluate conditions before and after the opening of this bypass. Both quantitative and qualitative data were assembled to evaluate the potential impacts of the bypass road. The quantitative analysis examined longitudinal data at the municipal and county level for the period 1970 to 2000, as well as traffic count data. In addition, 1974, 1985 and 1995 land cover maps and 2002 aerial photographs were used to assess land use changes. The qualitative analysis consisted of surveys and interviews with different stakeholders, including residents, visitors, business owners/employees, and government officials.

Background

The Borough of Hightstown, incorporated in 1853, is a 1.2-square-mile town in central New Jersey surrounded by the Township of East Windsor (see figure 1). It is bounded on either side by two major north-south roadways - State Highway 130 to the west and the New Jersey Turnpike (I-95) to the east. County Route 571 bisects the town from east to west, County Route 539 bisects it from north to south, and State Route 33 bisects it from east to southwest.

The Route 133 Bypass is a 3.8-mile, four-lane state freeway that opened to traffic on November 30, 1999 (see figure 2). The full length of the bypass is located within East Windsor Township. Access to the bypass, other than at the eastern and western termini, is limited to two points - a three-quarter cloverleaf interchange at Route 130 and a partial diamond interchange at One Mile Road. There is no interchange with the NJ Turnpike, which is located about one mile to the west of the bypass' eastern terminus. The bypass terminates on each end at signal-controlled intersections with jug handles.

Figure 1: Hightstown and the Route 133 (Hightstown) Bypass.

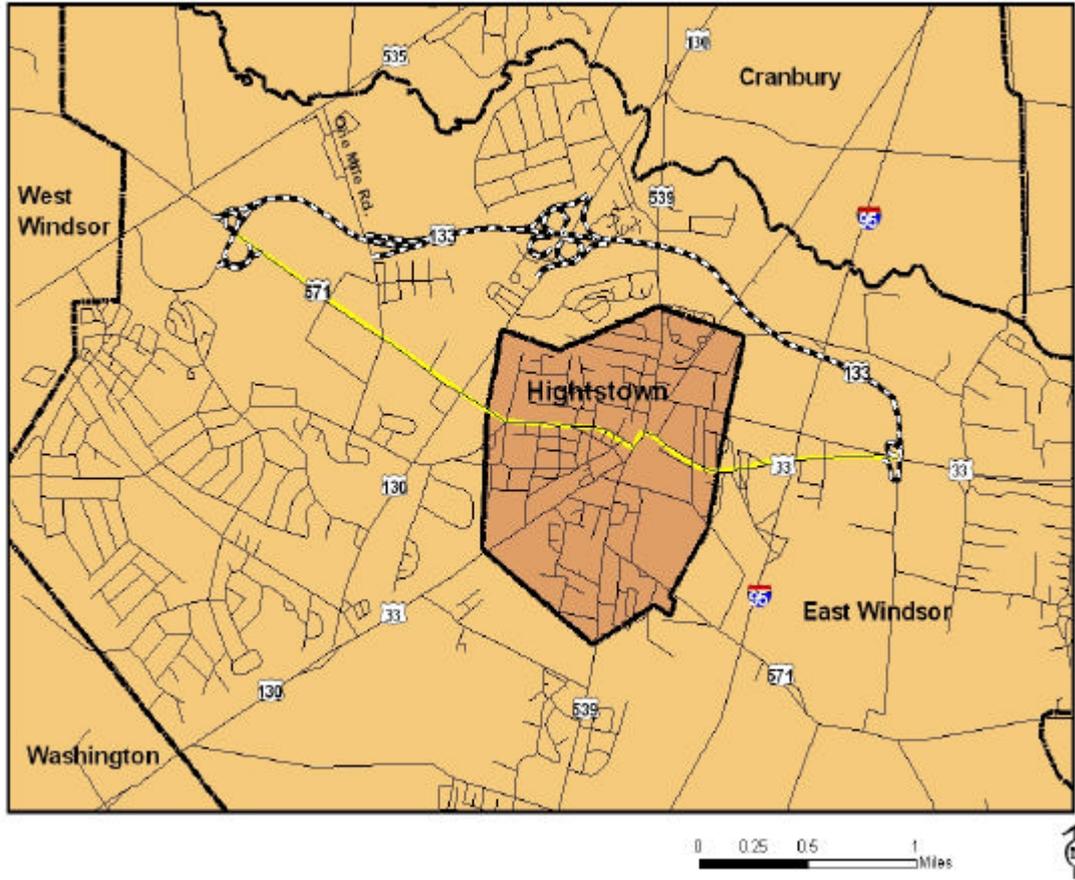


Figure 2: The Route 133 (Hightstown) Bypass.



The Route 133 Bypass has a long history. Discussion of a bypass around Hightstown dates back to 1929, when local officials sought a solution to divert through-traffic around downtown Hightstown (*nyroads.com*). In 1959, the New Jersey Department of Transportation (NJDOT) identified the need for a freeway bypassing Hightstown that would connect Route 33, east of Hightstown, to Route 206, north of Princeton. In 1987, the NJDOT modified this proposal and recommend the construction of the Hightstown Bypass, as it was then known, as a separate project with independent utility. In 1994, planning for the Hightstown Bypass began and its name was officially changed to the Route 133 Bypass.

In October 1999, just prior to the opening of the Route 133 Bypass, the *Princeton Packet*, a local area newspaper, published a series of articles that highlighted various issues associated with the bypass. One article reported that downtown Hightstown business owners expected the bypass to have a positive impact on their businesses. With the rerouting of regional traffic, and especially truck traffic, they anticipated that the downtown would be used only by those local residents and visitors who came explicitly to shop or visit downtown. "They don't see it taking away existing business — only adding to what's already there. ... So, despite the loss of hundreds of vehicles driving by, businesses are anxious for a friendlier environment to make potential customers more relaxed - and that's going to be good for business" (Heyman, 1999).

Another article reported that the bypass would bring benefits to the township of East Windsor. It was hoped that the bypass would provide a major boost to the commercial area developing on the township's west side (Toutant, 1999a). A third article reported that the earlier objections to the building of the bypass by certain East Windsor community groups had since subsided (Toutant, 1999b).

Notwithstanding the benefits that both Hightstown and East Windsor expected from the opening of the bypass, another article pointed to potential points of conflict between the two communities. While Hightstown hoped the bypass would reduce truck traffic through the downtown, East Windsor Mayor, Janice Mironov, affirmed: "we don't want the bypass to become an attraction to trucks that don't belong on Route 130," the major north-south road that passes through the center of East Windsor's commercial district (Toutant, 1999c).

Bypass Outcomes

The Borough of Hightstown placed great importance on the Route 133 Bypass as a way to divert traffic from the downtown. The stated goals of the bypass were traffic-related: to relieve traffic congestion in the Hightstown Central Business District (CBD), relieve the local roadway network of truck traffic, improve east-west traffic flow, improve traffic safety in and around the Hightstown CBD, and improve the overall regional transportation network. The circulation element of the 1998 Master Plan envisaged broad quality of life impacts for the Borough resulting from the reduction in downtown traffic.

The State's traffic analysis of the impact of the new Hightstown By-Pass promises a dramatic reduction in traffic through town, including a substantial decline in truck traffic. After regional through traffic is diverted away from downtown Hightstown, the Borough will have an opportunity to reclaim its old town charm and revitalize its business district. The future holds the promise of better retail development, higher valued ratables, a more balanced municipal budget, improved community services and, hopefully, lower taxes. The By-Pass alone won't do it all, but without it, certainly none of this would be possible (Borough of Hightstown Master Plan, 1998a).

Although only five years have elapsed since the opening of the Route 133 Bypass in November 1999, a number of preliminary observations on its impacts

can be made. These impacts, and the role of interjurisdictional politics in mediating them, are summarized under four headings - traffic flows, land use development, economic revitalization, and social and community development.

Traffic Flows

The Route 133 Bypass has succeeded in diverting some regional traffic from Hightstown's downtown. Traffic counts conducted in December 2002 showed that the bypass was carrying each weekday between 11,000 and 21,000 vehicles in both directions, averaged annually. No doubt, most of this east-west traffic would have passed through downtown Hightstown, had the bypass not been built.

Before and after traffic counts carried out in 1994 and 2002 along the bypassed corridor, at the junction of Stockton Street

(Route 571) and Main Street (Routes 33/539), showed that east-west weekday traffic decreased in downtown Hightstown (see figure 1). Westbound traffic leaving Stockton Street decreased almost 45 percent, while eastbound traffic entering Stockton Street decreased 61 percent (see table 1). Southbound traffic entering the junction from North Main Street decreased by almost 24 percent and northbound traffic leaving the junction decreased by almost 16 percent. These flows included east-west traffic to and from Route 33 and the NJ Turnpike. However, traffic entering the junction from the south on South Main Street increased by a little over 18 percent. This increase could have been either regional traffic headed for the NJ Turnpike from Route 130 or local traffic coming from Route 539.

Table 1: Before and After Traffic Counts at the Junction of Stockton and Main Streets (AADT)

	1994	2002	% Change
Westbound Stockton Street	5,590	3,090	-44.7%
Eastbound Stockton Street	5,550	2,150	-61.3%
Southbound N. Main Street	11,550	8,830	-23.5%
Northbound N. Main Street	11,600	9,750	-15.9%
Southbound S. Main Street	N/A	7,310	N/A
Northbound S. Main Street	7,750	9,170	18.3%

Source: NJDOT/The Louis Berger Group

In interviews, both the mayor and municipal engineer of Hightstown stated that they had observed a decrease in through-traffic on Stockton Street (Route 571) since the opening of the bypass. The municipal engineer also observed minor decreases in traffic on Main Street (Route 33/539). However, the municipal engineer contended that the bypass was not carrying the traffic volumes it was expected to carry. Furthermore, a majority of the surveyed residents and business owners responded that they had not noticed a decrease in downtown through-traffic.

The reactions of residents and business owners, as well as the claim of the

municipal engineer that the bypass is under-utilised, are not without reason. December 2002 traffic counts showed that, despite the decreases in traffic since the opening of the bypass, considerable traffic still passed through downtown Hightstown. North- and southbound weekday traffic volumes on Main Street ranged between 16,400 and 18,400 vehicles in both directions, averaged annually (see table 1).

A number of possible explanations exist for the high volumes on Main Street. After the opening of the bypass, due to the political power wielded by the mayor of

East Windsor, signs on Route 130 North still point drivers headed for the NJ Turnpike to Route 33, which passes through Hightstown's downtown (see figure 3). The sign at Exit 8 on the NJ Turnpike directs drivers headed for Route 33 West—the obvious connection to Route 130 South—Hightstown and East Windsor through Hightstown's downtown. Only drivers headed for Princeton are directed east to Route 133, the bypass route (see figure 4). Second, new residential

communities to the north and south of Hightstown, on Route 539 in East Windsor, have added local traffic to the downtown area. Finally, the decision of the NJ Department of Transportation to designate the bypass as Route 133, rather than Route 33, may influence drivers' decisions to use Route 33 to connect with Route 130 South rather than to use the Route 133 Bypass.

Figure 3: Signs on Route 130 directing traffic to Route 33 East, which passes through downtown Hightstown.



Figure 4: Directional signs at NJ Turnpike's Exit 8.



Although no truck traffic count data were available, residents, business owners, the mayor and the municipal engineer reported that they have observed heavy truck traffic in the downtown since the bypass' opening. The municipal engineer also indicated that little truck traffic uses the bypass. In fact, truck traffic in downtown Hightstown has been an issue of frequent local concern. Before the municipal elections in Hightstown, an October 2003 article in the *Trenton Times* noted that "(t)here's one thing on which all six candidates for the Hightstown Borough Council can agree. If elected on Nov. 4, they would encourage truck drivers to use the Hightstown (Route 133) Bypass" (Vuocolo, 2003). In part, the heavy truck volumes were a result of the 700 trucks which daily entered and exited the Minute Maid bottling plant, located on Mercer Street (Route 33), to the south of the downtown. This plant closed after the completion of the study surveys, and a reduction in truck traffic should occur. On the other hand, the recent opening of a

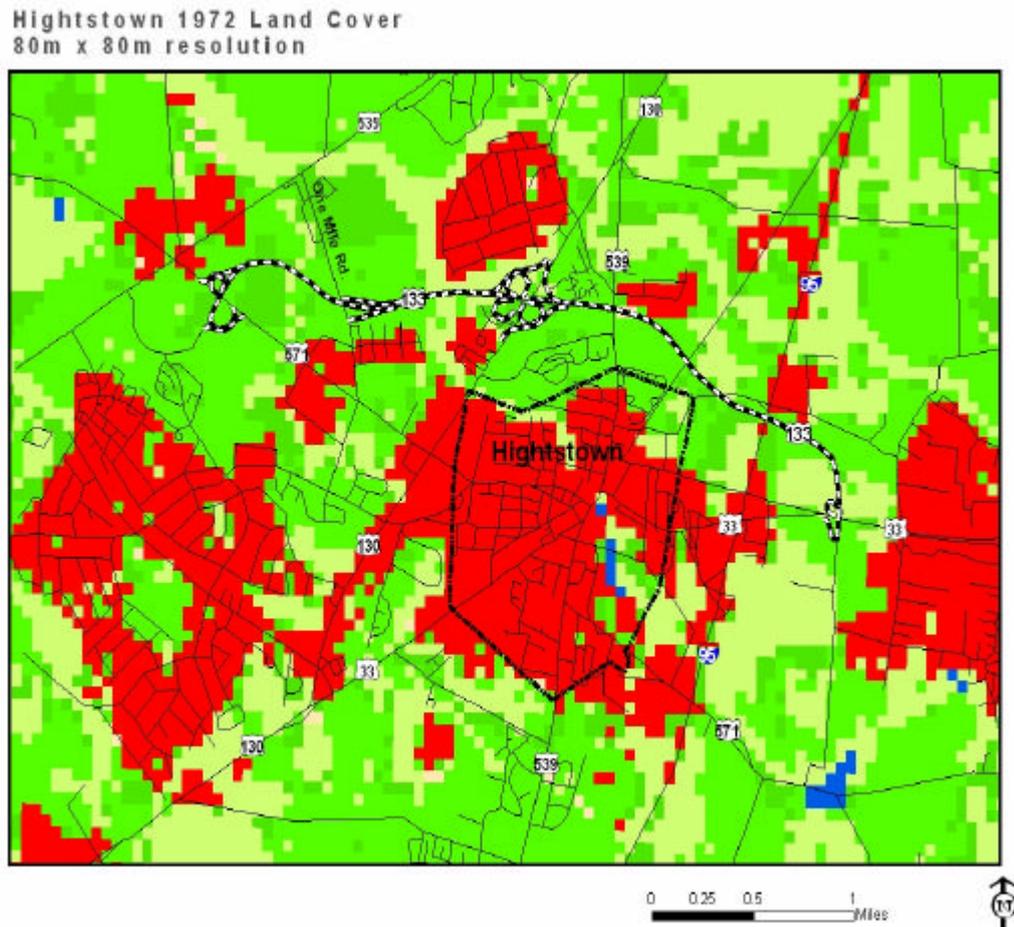
Home Depot store on Route 33 and the pending opening of a Wal Mart just south of the junction of routes 130 and 33, both in East Windsor, are likely to increase truck traffic through Hightstown's downtown.

There are a number of possible explanations for the high truck traffic volumes through Hightstown's downtown. As noted above, at the insistence of East Windsor, signs on Route 130 North direct traffic to Route 33 East rather than to the bypass (see figure 3). Second, Hightstown is bounded on each side by a major north-south roadway, the NJ Turnpike to the east and Route 130 to the west. Since the bypass serves east-west traffic, not north-south traffic, drivers moving from one major north-south roadway to the other often find it easier to travel through Hightstown's downtown than to use the bypass. In particular, northbound trucks on Route 130 headed for Exit 8 on the NJ Turnpike and southbound trucks exiting the NJ Turnpike headed for Route 130 are

likely to prefer the shorter route through Hightstown's downtown. In addition, drivers travelling via the bypass between Route 130 and the NJ Turnpike must pass through five traffic lights rather than three when travelling via Route 33 through downtown Hightstown. Third, accessing

the bypass from the NJ Turnpike is not intuitive. Motorists wishing to use the bypass to travel north, south, or west must first travel east approximately one mile to connect to the bypass via a complicated jug-handle entrance.

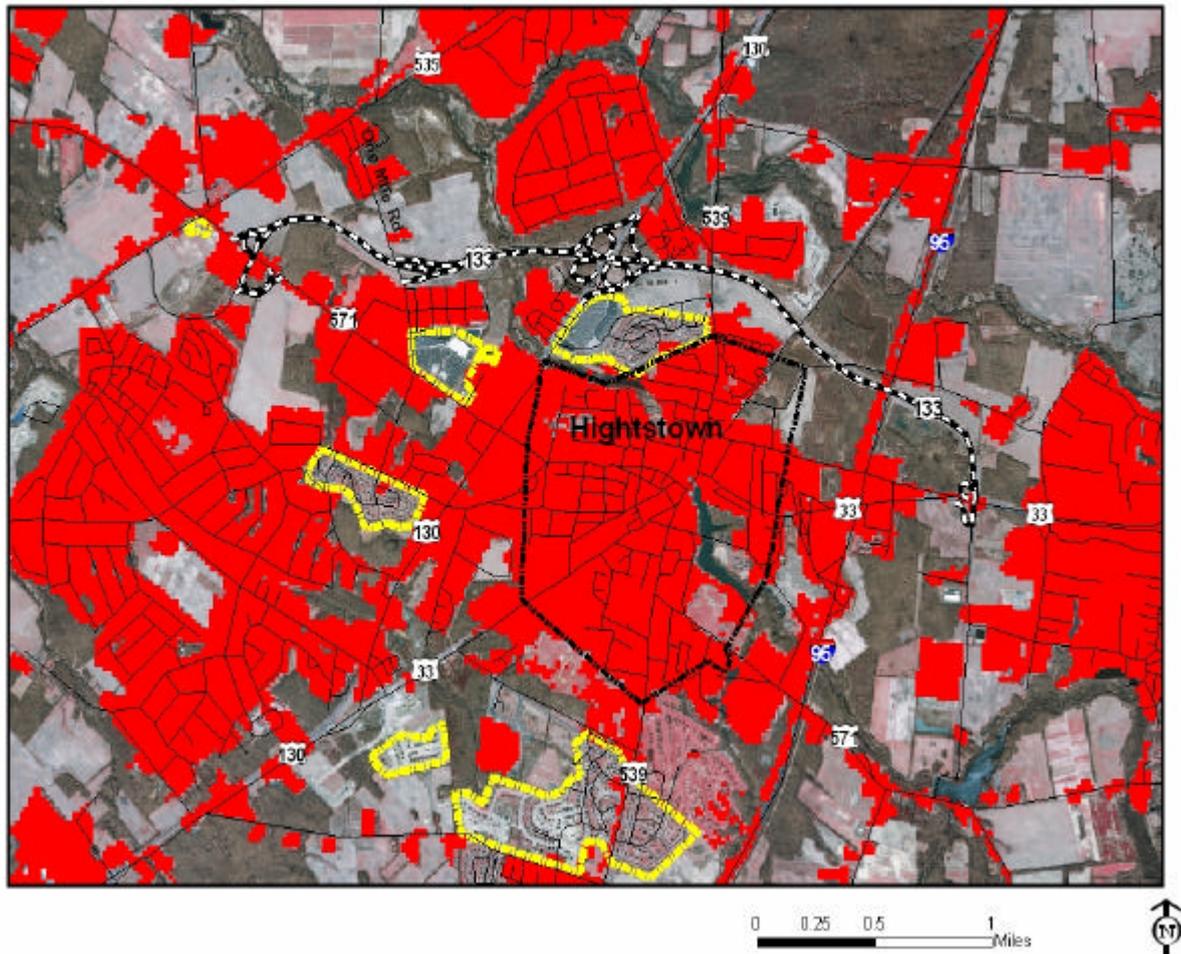
Figure 5: Hightstown 1972 Land Cover.



Land Use Development

Figure 6: Hightstown 1995 Land Cover and 2002 Aerial.

**Hightstown 1995 Land Cover
and 2002 aerial**



A land use map of the area shows that in 1972 Hightstown was about 85 to 90 percent developed (see figure 5).¹ Very little available land existed for development in the Borough. In the area around Hightstown, in East Windsor Township, some residential development existed to the southwest of Hightstown as well as some commercial development along the Route 130 corridor, adjacent to Hightstown's western border. Some development existed farther west along County Route 571, just west of the intersection with One Mile Road, as well as along Route 535, close to the future western terminus of the bypass. Between 1972 and 2002, little development occurred within Hightstown (see figure 6). A total of 331 building permits were issued in the period between 1980 and 2002, of which 250 were issued in 1985 alone. These permits were for the building of a residential community in the northern section of the Borough along Route 539, adjacent to the border with East Windsor. No other significant development occurred in Hightstown during the 30-year period. In East Windsor, on the other hand, extensive development is visible when the two land cover maps are compared.² Of relevance are: the development on Route 571 immediately adjacent to the western terminus of the bypass, the development on Route 571 between the bypass' western terminus and Route 130, the development on Route 535, and development to the east of Hightstown, located south of the bypass' eastern terminus. In addition, considerable development existed to the south of Hightstown adjacent to Route 539 and to the north of Hightstown, adjacent to the interchange on the Route 133 Bypass with Route 130. Route 133 Bypass is a limited access roadway. Therefore, none of the development that has occurred

adjacent to the roadway was induced by the improved access the bypass provided. The bypass does not appear to have contributed to sprawling housing or commercial development either adjacent to the bypass or at any of the interchanges. Even the development south of the Route 130 interchange, where the Town Centre Plaza commercial centre is located, was planned and completed before the bypass opened (see figure 3). In terms of future plans, East Windsor's Master Plan includes an extensive area for office development to the north of the Town Centre Plaza, on the south side of the bypass, but this area will not have direct access to the bypass. On the other hand, the bypass has induced corporate and industrial development at both ends and, in the process, contributed to an increase in ratables for East Windsor. The Township is actively promoting commercial and corporate development at the western terminus of the bypass and industrial and warehouse development at the eastern terminus of the bypass. In a brochure issued by the Township, entitled "We're Open for Business," a map illustrates how the Route 133 Bypass provides easy and direct access to East Windsor's Route 57 Development Corridor and to its Exit 8, Route 33 Corridor. Since the opening of the bypass, a 40,000-square-foot medical complex has opened at the junction of Old Trenton Road (Route 535) and Route 571. In addition, a 270,000-square-foot Sci-Park, an office-laboratory complex, has been approved for construction on Old Trenton Road (Route 535). The Business Ombudsman of East Windsor pointed out that the developer of the Windsor Corporate Park, also located on Old Trenton Road to the north of the junction with Route 571, knew that the bypass would be built when he converted an old manufacturing plant into a Class A office park in the late 1990s. The Conair Corporation has located a large distribution facility that serves the area east of the Mississippi River along Milford Road, which extends south from the eastern terminus of the bypass. Conair added 175,000 square feet to its original 400,000-square-foot building after the bypass opened. It recently received approval to add another 400,000 square feet.

Economic Revitalisation

While the economic impact of the bypass has not been calculated, we have made some preliminary observations about economic activities in East Windsor Township and Hightstown since the bypass' opening. Because the bypass is a limited access roadway, no economic activity has occurred adjacent to the bypass corridor, other than the corporate and industrial development at both ends. Within East Windsor Township, however, considerable commercial development continues to occur. East Windsor has five commercial districts distributed along Routes 130, 571 and 33. Much of this development is anchored by national "big box" commercial chains, such as Target, as well as large regional supermarkets. More recently, a Home Depot opened on Route 33, close to the junction with Route 130. A Wal-Mart will open shortly just south of the junction of routes 130 and 33. These retail activities differ from the small independent stores found in Hightstown and different economic forces drive their location.

Since the opening of the bypass, the Borough of Hightstown, hoping to take advantage of an expected reduction in through-traffic, has taken a number of actions to revitalize the downtown. The Borough has implemented streetscape improvements, traffic calming devices and parking improvements in accordance with the Master Plan's recommendation to "restore the same vibrancy and enthusiasm of the 1800s to modern day Hightstown" (Borough of Hightstown Master Plan, 1998b). Both the mayor and municipal engineer have observed increased vibrancy in the downtown. The mayor noted that a downtown restaurant closed for many years has reopened and has added an outdoor patio. The municipal engineer observed that there are no longer any vacant stores in downtown Hightstown. The vast majority of residents and visitors responded that they were aware of new businesses that have opened on the main street since the opening of the bypass. Business owners and employees, however, were more reserved about the changes to the downtown. Although a majority was satisfied with the business environment downtown, very few attributed the changes to the bypass.

Only a small minority felt that the impact of the bypass on main street businesses has been positive and that the bypass has had a positive impact on their own business.

Social and Community Development

It may be too soon to discern demographic and socio-economic responses in Hightstown to the building of the bypass. An analysis of the Borough's population between 1970 and 2000 shows that the demographic composition has undergone some change and some socio-economic indicators have shown improvement, while others have fluctuated. However, it is unlikely that these changes were a consequence of the building of the bypass.

Hightstown's total population, 5,200 persons in 2000, has remained more or less stable for 30 years. The population has become more diverse and the share of working age residents has increased. In addition, the share of the town's population with a university education has more than doubled. Between 1970 and 2000, average household income rose by 58 percent in constant dollars and participation of the population in the civilian labor force increased by almost 20 percent. Although unemployment was relatively low in 2000, the poverty rate was relatively high. The share of owner-occupied housing units has grown steadily since 1970.

Surveys of residents showed limited enthusiasm for the impact of the bypass on both the downtown and the community. Less than half the respondents felt that the impact on the main street has been positive, and only half the respondents felt that the effect on the community as a whole has been positive. Despite the improvements to the streetscape, the vast majority of respondents thought that the main street could be made more attractive by the addition of more restaurants, coffee shops, specialty shops and improvements to the streetscape.

In summary, our study shows that the impacts of the Route 133 Bypass on traffic flows, land use development, economic revitalization, and social and community development are similar to those cited in the literature review. However, the research also revealed that the impacts, particularly with respect to traffic flows and land use development, have been mediated by interjurisdictional politics.

The Role of Interjurisdictional Politics

The potential for the bypass to divert traffic, and especially truck traffic, from Hightstown's downtown is intertwined with interjurisdictional politics and the relative political power of the affected municipalities. The location of the Route 133 Bypass entirely within East Windsor Township has meant that the mayor of East Windsor, who has been in office since 1996, has been able to wield much power over the function and use of the bypass. Although one of the goals of the bypass, which was intended by its designation as a state route, was to divert regional and truck traffic from Hightstown's downtown, this has not been accepted by East Windsor Township.

The mayor of East Windsor Township has blocked all attempts to place signs which direct Route 130 northbound traffic headed to the NJ Turnpike via the bypass. In addition, the mayor has insisted that the bypass be known as the Route 133 Bypass rather than the Hightstown Bypass, its original name. The mayor, when interviewed, stressed that Route 130, although it is a major north-south roadway, functions as East Windsor's main street. Adding more through-traffic, in particular, truck traffic, would only make it more congested than it already is. In addition, the mayor contended that the Route 133 Bypass is an east-west route, not a north-south route, and was thus never intended to handle north-south traffic.

Unsuccessful efforts by various Hightstown administrations to convince the NJ Turnpike Authority and the NJ Department of Transportation to replace the signs on Route 130 are illustrated in a September 2002 letter addressed to the Mercer County Executive and signed

by two Hightstown councilmen, the chairman of the Public Safety Committee and a Planning Board member.

We are writing to you concerning the increase in traffic through Hightstown. Currently, there are numerous Turnpike signs that direct traffic into Hightstown to get to Exit 8. We have tried on several occasions to convince the Turnpike Authority to change the signs to point towards the bypass, but Mayor (of East Windsor).... will not allow it. She has now approved the construction of a Home Depot at the South end of route 33 just beyond our town's limits. We would like to be sure that trucks will be directed to use Route 130 and Route 133 when entering and exiting the Home Depot complex. We are requesting that you intervene to direct the Turnpike Authority to change their directional signs to direct traffic to the Hightstown bypass, instead of sending unnecessary truck traffic through the neighborhood streets of Hightstown Borough.

On the other hand, East Windsor Township has effectively utilized the Route 133 Bypass to its own advantage. It has promoted its use to encourage corporate and industrial development at both its ends, developed residential communities adjacent to Hightstown's border which have increased local traffic within Hightstown, and directed commercial development to Route 33 which will add truck traffic through Hightstown's downtown.

Conclusion

This case study illustrates the potential consequences of building a bypass within an interjurisdictional context. Both the use of the Route 133 Bypass and its impacts have been affected by interjurisdictional politics.

East Windsor Township has successfully taken advantage of the bypass for its own benefit through the development of corporate and industrial ratables, while mitigating the negative impacts of increased through-traffic on both the bypass and Route 130. It has succeeded to block the posting of signs directing northbound Route 130 truck traffic headed for the NJ Turnpike to the bypass which has resulted in considerable truck traffic opting for the shorter route passing through downtown Hightstown. On the other hand, the benefits that were intended to accrue to Hightstown by the diversion of traffic, especially truck traffic, have not been fully realized.

Although the Route 133 Bypass has diverted some regional traffic from downtown Hightstown, thereby reducing through-traffic on the main street, the actual traffic diversion is probably less because of the constraints set on its function and use by East Windsor Township. More important, the perceptions of majority of the surveyed residents and business owners have not changed. They have not noticed a decrease in through-traffic and truck traffic remains a contentious issue for them.

Since the Route 133 Bypass is a state road intended to improve regional traffic flows, access to it is limited to two interchanges and the termini. This has successfully curbed induced development along the bypass corridor. Hightstown's efforts to revitalise the downtown since the opening of the bypass have yet to be established. While the mayor and municipal engineer have noticed increased vibrancy and new business openings, residents and business owners remain somewhat dubious. On the other hand, due to the proactive efforts of East Windsor Township, corporate and industrial development has occurred close to both bypass termini. Business growth has also occurred in East Windsor's various commercial centers, although this has more likely been a result of other economic forces than a consequence of improved access provided by the bypass.

Unlike many studies that have focused on rural bypasses, this study also found that in a fragmented jurisdictional context, such as New Jersey, where a bypass is designed to relieve traffic in one municipal center while passing through another jurisdiction, competing municipal interests can yield unforeseen traffic flows, land use developments, and economic

activities. Because of political differences between Hightstown and East Windsor Township, the bypass remains underutilized and considerable traffic, especially truck traffic, still passes through Hightstown's downtown. The impacts of bypass roads in built-up suburban neighborhoods that cross municipal boundaries are multiple and complex. Planners of bypass roads must be cognizant of the possibility of unforeseen and induced outcomes, which can jeopardize the intended goals of a bypass project.

Acknowledgements

This research was part of a larger research project examining the impact of bypass roads in New Jersey, which was funded by the New Jersey Department of Transportation. Thanks to Carole Walker for her insightful comments.

Notes

1. The bypass did not exist in 1972. It is inserted in this map for comparative purposes.
2. The area encircled in yellow is the development that took place between 1995 and 2002.

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