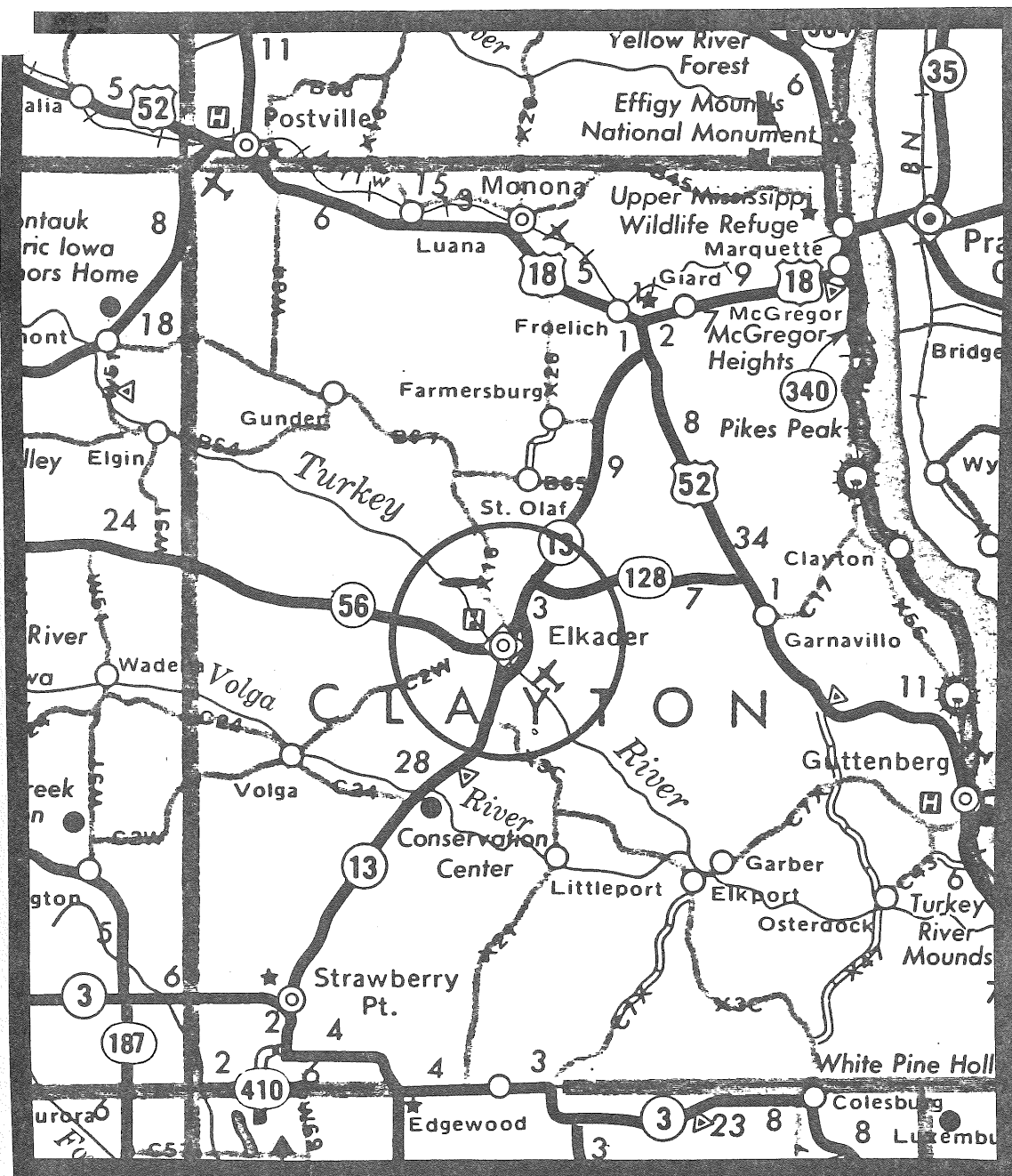


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A LITERATURE REVIEW of URBAN BYPASS STUDIES



Prepared by the
Office of Project Planning
Iowa Department of Transportation
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PREFACE

Urban places attract the most highway travel because more people are to be found per acre in urban places than elsewhere. In the beginning of highway development the objective was to provide an all-weather road for the rural people to get to town and back to their farms, but there was no consideration of getting motor vehicles through the town to the opposite side.

With the development of intercity travel, it soon became apparent that travel through the urban areas would have to be given consideration along with the travel to and from the urban areas. This consideration led to the urban bypass, a provision in highway location whereby the traveler may get to the opposite side of the urban area without going through it, or at least not through the central business district. Bypasses, although highly desired by the through travelers, were not welcomed by local business interests on the basis that the community would suffer a reduction in retail trade. Some discussion of the pros and cons of bypasses and their consequences as observed from experience will shed light upon this type of local highway.

Many of the research report summaries in this document were obtained from a computer search by the Highway Research Information Services of published reports on the topic of Urban Highway Bypasses. The Highway Research Information Services is sponsored by the Transportation Research Board.

Very few studies on urban bypasses have been completed in recent years. The reason for this can be attributed to the consistency of the findings of the numerous earlier research reports on this topic.

The findings and recommendations presented in this document do not necessarily represent the position or policies of the Iowa Department of Transportation, but represent those of the author only. Any questions or comments should be directed to Tom Welch, Office of Project Planning, Iowa Department of Transportation, Ames, Iowa 50010, telephone (515)239-1321.

ARRANGEMENT OF LITERATURE REVIEW

The studies contained in this review are divided into three parts. The first part pertains to studies completed on cities in Iowa which have been bypassed. The second part is a summary of a very comprehensive research project completed on 76 bypassed cities. This study was authored by a former professor at Iowa State University. The third part references studies completed in other states.

	<u>Page</u>
Iowa Bypass Studies.....	3-14
Red Oak.....	3, 4
Glenwood.....	3
Newton.....	4
Corning.....	4
Decorah.....	5
Elkader.....	6, 10
Center Point.....	6
Walker.....	8
Grand Junction.....	8
Independence, Cherokee, Webster City.....	13A
Interview With Dr. Ken Stone, Economic Professor.....	13
A Comprehensive Study of 76 Bypassed Cities	
By Dr. Robley Winfrey.....	15
Bypass Studies Completed Outside of Iowa.....	18
Summary of Findings.....	23

IOWA STUDIES

MOST IN RED OAK FELT BYPASS HELPED THEIR TOWN GROW Missouri Valley Times Newspaper Report 1983

The US 34 bypass has helped make Red Oak (pop. 6,210) more attractive to industry and commercial businesses according to some of the city's businessmen. Most of them said that today, nearly 20 years after its opening, it is probably one of the best things that ever happened to Red Oak.

There has been a substantial amount of new businesses built on Highway 48 which serves as the main entrance to Red Oak. The businessmen in Red Oak feel that the new Highway 34 has been beneficial in recruiting new industry to Red Oak. "Good transportation is essential in today's world society," one businessman responded.

As for the bypass hurting downtown business, the vice president of a bank said "it hasn't." Most everyone interviewed said they thought Red Oak's businesses hurt the most were gas stations and motels along the old route. The owners of a Standard Service Station said they were able to stay in business after the bypass was built because of quality workmanship, a good local clientele and because they have always done more than just pump gas. It was reported that total accidents in the surrounding area decreased by about 50 percent after the bypass was built.

IN GLENWOOD A HIGHWAY BYPASS WAS A MIXED BLESSING Missouri Valley Times Newspaper Report, 1983

The newspaper reporter went to Glenwood (pop. 5,002) and interviewed businessmen in the community. She found that the US 34 bypass has had good and bad effects on the city, depending on who you talk to. The owner of the Best Western Motel which sets about a mile from the bypass said his business does not depend on people passing through Glenwood, but that 99 percent of his business is people whose destination is Glenwood. He thinks the bypass has been good for Glenwood.

The owner of a Dairy Chef located near the town square said that putting in a new highway is "like turning off your business." The previous owner of a service station said he had to sell his business because the bypass highway took so much business away from him. Another businessman likened today's travel through small towns to yesterday's travel by horse and buggy. "I think it's the coming thing. I don't think there is any other way but to bypass." He said before the bypass most travelers didn't stop in Glenwood and if they did, only something small was purchased.

The owner of a supermarket said that travelers on old US 34 gave most of their business to his store. But he said their purchases didn't amount to much. However, he said he would be naive to say it has not affected other businesses in town. "This is still a great business town" he said. "And by taking traffic, especially semi's out of downtown it did make it more safe for moms with small kids."

Another businessman said before the bypass, traffic downtown resulted in traffic jams worse than on some of Omaha's streets during rush hour. He said because of the bypass more people shop downtown because they can now get to the store.

A former Pepsi Cola distributor said he saw towns like Emerson (pop. 484) die because of the bypasses which were built along US 34. He felt Glenwood remained a flourishing city because of its size.

The president of a bank in Glenwood said he feels a city will always lose a certain amount of business with a bypass, but said he thinks Glenwood's total revenue has increased because of the bypass. "You won't lose sales" he said, "but you may have to rearrange sales."

NEWTON ECONOMIC STUDY, INTERSTATE 80 BYPASS
Iowa State Highway Commission

This study provides information about the economic, traffic, highway safety and land use effects of the bypass of Newton, Iowa, (pop. 15,292) by Interstate 80. The highway was opened to traffic on November 16, 1962. Taxable retail sales are the major indicator that the researchers used to determine the economic effects on the community. The report indicates that retail sales in Newton grew by nearly 10 percent during the study period and can be compared with the control areas which grew at a slightly larger rate. Newton firms in the cafe and service station group showed a decrease during the study period. The researchers found that this was due to management and ownership changes as well as any loss in trade resulting from the highway change. Removal of through traffic from US 6 and the introduction of Interstate 80 has dramatically reduced the accident rate in the Newton area. The bypass of Newton by Interstate 80 has not deterred the commercial growth of the community nor has it adversely affected the economy of Newton as a whole.

RED OAK AND CORNING, US 34 BYPASS, ECONOMIC STUDY
Iowa State Highway Commission
Federal Highway Administration

The economic impact resulting from constructing bypass routes around the cities of Red Oak (pop. 6,810) and Corning, (pop. 1,439) Iowa, is evaluated here. The two cities are located on US 34 in the southwestern part of the state. The study was made on a "before and after" basis using a control area method to compare and analyze changes during the study period. Economic parameters considered include retail sales, land use zoning, industrial employment, and traffic patterns. Four years of "before" data and two years of "after" data were taken. Comparison of changes were made against those noted in an eight-county control area. Relative comparisons of changes occurring between the two cities were also made. The results show that the bypass route around Corning had greater undesirable economic consequences than the bypass around Red Oak. Both cities had a decrease in sales for highway-oriented firms. However, part of the decrease has attributed to changes in ownership and management of the firms involved. This study also shows that the general economy did not change appreciably. Red Oak showed a change in land use and zoning in relocation. Increased

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commercial and industrial use along the highway was evidenced. Similar effects in Corning had not taken place.

DECORAH
Iowa DOT Study

Decorah (pop. 7,703) was bypassed by US 52 in 1962 and by IA 9 in 1967. The following are summaries of interviews with local businessmen. These interviews were conducted in 1986.

Lowell Erdman, private consulting engineer, who is retained by the City of Decorah as the city engineer. He stated that traffic congestion was so bad downtown that the business groups did not oppose the bypasses. He said no businesses moved out to the bypass route.

Bob Osgaard, Standard Station owner. He said very few motorists make trips that require stopping for gas between their origin and destination now that vehicles go so many miles on a tank full. Almost all a gas station's business which is located in a town comes from local clientele or travelers who intended to stop in town anyway.

Bill Ronan, President, Decorah State Bank. The bypasses improved the shopping environment downtown. He did not detect any decrease in business volume in the downtown area nor was he aware of any business closing after the bypasses were completed. He felt the bypasses and associated highway improvements were good for businesses in Decorah as it enhanced access to Decorah.

Jack Thompson, gift shop owner. The bypasses had no noticeable impact on his business. He felt the bypasses were located too close to Decorah.

Jerry Alway, hardware store owner. He felt the bypasses were the "best thing that ever happened to downtown Decorah" as it improved the shopping environment.

ELKADER
Iowa DOT Study

Elkader (pop. 1,592) was bypassed by IA 13 in 1981. IA 56, a low volume state highway does have its southern terminus in Elkader. The following are summaries of interviews with local businessmen and residents. These interviews were conducted in 1986. There was considerable opposition to the IA 13 bypass when it was first proposed.

Ken Lemka, City Clerk. He said the residents of Elkader are pleased with the reduction of truck traffic through town. They feel it is safer for their children and the noise has been reduced.

Ed Olsen, Mayor and Sears Store manager. The bypass did not affect retail trade. The IA 13 improvements have greatly improved emergency access to and from Elkader. "It has been great!" He feels the bypass intersection should be lighted.

Emmett Theis, clothing store owner. He felt the shopping environment has improved because the bypass reduced parking and pedestrian conflicts with highway traffic.

Carl Tschirge, hardware store owner and former council member opposed to bypass when first proposed. He said the businessmen in Elkader submitted a petition in opposition to the bypass, however the bypass has had minimal adverse business impacts. He would like the Iowa Department of Transportation to bypass IA 56 around Elkader to further reduce truck traffic.

Ray Severson, former city councilman. As a paramedic he has found emergency access to regional emergency hospitals improved. His opinion is "that it is the greatest thing that ever happened to Elkader." He would like to see bypasses of Strawberry Point and McGregor to further reduce ambulance travel time to hospitals in LaCrosse and Waterloo.

Ed Nelson, Sinclair Service Station owner. He said highway traffic very seldom stopped in town so his gas sales were not reduced as a result of the bypass. One problem he did point out was that nonresidents have a difficult time finding the bypass from within town. He suggested the state place signing in town.

Group of citizens at a local cafe. The consensus of these residents of Elkader is that they wish it would have happened a long time ago. It has improved the quality of life in town.

Shell Station owner. This is a full service gas station. She said they noticed some decrease in gas sales after the bypass was built but highway traffic business was a very small part of total sales. She stated that no service station in town went out of business after the bypass was built.

Super Value Grocery Store. This grocery store is located on the old highway route. The existing owners recently bought from the owner who owned the store immediately before and after the bypass was built. They said the previous owner indicated that highway traffic did stop and he had lost that business due to the bypass. However, their purchases were small.

Rathskeller Supper Club. This is a unique dining place that had good highway visibility and attracted people who saw it. The owner stated she felt the bypass did substantially decrease her business which required her to decrease the size of her operations. She said she still has a good business from tourists that know her supper club is there.

Johnson Cafe. This is a small cafe located on the old highway route. The owners stated the bypass had no noticeable affect on their business. They have an excellent local clientele.

CENTER POINT Iowa DOT Study

Center Point (pop. 1,591) is located in Linn County about 18 miles north of Cedar Rapids along former state highway IA 150. Interstate 380 was

constructed about 2 miles west of Center Point in 1984 resulting in a substantial decrease in traffic along IA 150. The central business district is located two blocks north of the former IA 150 highway. However, a considerable number of businesses are located along the former highway. The following interviews were conducted in March 1986.

Mayor T. J. Neenan. Mr. Neenan stated that he was not aware of any businesses that closed as a result of the construction of I-380. In fact, he said one additional service station opened up immediately after I-380 was completed.

He said emergency access to hospitals in Cedar Rapids has improved considerably and that travel time for work trips to Cedar Rapids have been reduced. He felt the removal of state highway traffic through town has created a safer environment for the residents. Overall he felt the construction of I-380 bypassing Center Point was more beneficial to Center Point than detrimental.

The following are interviews with the owners or managers of the five service stations along the former state highway.

Bill Rhienhart, owner Texaco Station. Mr. Rhienhart stated that the new highway had no noticeable affect on his business. His station primarily served local clientele and his repair work generates most of his business.

Gary Umbdenstock, owner Standard Station. Mr. Umbdenstock is the new owner of this station. He said the previous owner had stated that gasoline sales had decreased after I-380 was opened, but Mr. Umbdenstock said that it could have been more the result of a new Standard station opening up rather than the new highway location. He stated his business is doing well and that it is the local clientele that make up the vast majority of sales for service stations in small towns.

Mike Techan, owner Union 76 Truck Stop. Mr. Techan stated that his truck stop previously catered to highway traffic, particularly trucks. He felt his sales decreased 10-15 percent after I-380 was opened.

Manager Country Store (Standard Station/Convenience Store). This station opened up after I-380 was opened and is located on the access road between I-380 and Center Point. The manager felt business was doing well and that they get their business from both the I-380 traffic and that which previously did business with other service stations in Center Point, particularly the Casey's Store.

Manager, Casey's Store. The manager felt they still get some business off of I-380 from regular customers. The gas sales did decrease some but she felt the new convenience store (Country Store) was the cause. She said that highway traffic made up only a very small part of their sales.

The following are interviews with the three cafe owners/managers located along the former state highway.

Charlene Horner, owner of Eatery Plus Cafe. Ms. Horner stated the new highway location had no effect on her business.

Mike Techan, owner of the Union 76 Truck Stop Cafe. Mr. Techan said since they used to serve many truckers his cafe, business decreased 20-25 percent after I-380 was completed.

Marilyn Frazer, owner Merles Point Cafe. Ms. Frazer stated that business decreased considerably after I-380 was opened. She said they still get customers who drive in from I-380. She acknowledged that the poor farm economy has hurt her business also.

Motel Interviews:

Janie Mehmen, owner of Point Inn Motel. She stated that immediately after I-380 was opened her business decreased significantly. However, after the state placed a "Lodging Next Exit" sign on I-380 her business has been comparable to before I-380 was opened. She stated that during the construction of I-380 her motel business and the business at the town's cafes increased substantially.

Miscellaneous Business Interviews:

Hardware Hank Store. I spoke with the daughter of Mr. Don Dufoe, the owner. She stated that between the poor farm economy and the new highway location that the store's sales had decreased the past year. She said that I-380 made it more economical and less time consuming for customers to drive to Cedar Rapids to shop.

WALKER

Iowa DOT Study

Walker (pop. 733) is located in Linn County along state highway IA 150. The completion of I-380 in 1984 has resulted in a substantial decrease in traffic along IA 150. IA 150 passes through the west side of Walker several blocks from the central business district. However, several businesses are either along the highway or are visible from the highway. The following interviews were conducted in March 1986.

Sherbon's Store. This is a combination small grocery store and convenience store located along IA 150. The store does not sell gas. The owner stated that they noticed a substantial decrease in highway-generated business. However, the highway customers' purchases were small.

Mr. Clifford, owner C. J. Standard Station. Mr. Clifford stated that the completion of I-380 had no effect on his business. He said most all of his business has always come from local clientele.

Four "L" Lounge Cafe/Tavern located near IA 150. The owner said the completion of I-380 had minimal effect on his business. He stated that a few truck drivers would stop to eat and now he seldom has any truck drivers stopping to eat or drink.

GRAND JUNCTION

Independent study conducted by Prairie City Council Member Doug Gumm in 1986.

7. What was the feeling of city government in regard to the bypass? How about the citizens?

I was unable to get any information about how the city felt about the bypass before it went in, since it happened 23 years ago. However, it sounded to me like they're sorry it happened now.

The citizens, in Mr. Brabbs' point of view, would prefer that the highway stayed in town.

8. If you knew then what you know now, would you be for a bypass or against it?

Against it.

Miscellaneous comments - Mr. Brabbs also indicated that the farm economy has been pretty hard on them. He was in the middle of doing the city budget and said that their valuations were down again this year and thought he had cut as much out of the budget as he could last year.

I checked with the State Census Bureau for Grand Junction's population before and after the bypass.

1960 - pop. 949

1970 - pop. 967

1980 - pop. 976

I don't know what those numbers tell me, but thought they were interesting.

They also have a problem with the bypass cutting off services to the north part of town. There are about 15 homes north of the highway 30 bypass which have no sewer or city water. This is called "old Grand Junction" which didn't have modern services when the highway went through and now they can't get them there. He mentioned that they had to put in a couple of "lift stations?"

Most of the people in town go to Jefferson, Boone, or Ames to do their shopping for items that they can't get in town.

All in all, Mr. Brabbs didn't seem to be too optimistic about the future of Grand Junction, as well as small towns in general.

ELKADER

Independent study conducted by Prairie City Council Member Doug Gumm in 1986.

Person(s) contacted: Ed Olson, Mayor, and Ken Lemka, City Clerk.

Elkader is in Clayton County in the northeast part of the state about 25 miles (approximately) southwest of Prairie Du Chein.

1. What highway bypassed the city and when?

Highway 13 used to go through their business district and was reconstructed to bypass the City to the east. The project was completed about three years ago. They began discussing the project with the DOT in about 1974 or 1975. Highway 13 and 56 intersected in town and joined together to cross a common bridge. Traffic was a problem for them because of the large amount of grain being trucked through town on the way to the river. Guttenberg had a mobile home construction plant and many of the mobile homes being shipped out came through Elkader. The combination of local traffic along with the grain trucks and mobile homes created a bottle neck in town with everyone waiting to see trucks backed up for two city blocks on 13 and 56 waiting to cross.

2. Where was the highway before the bypass and where is it now?

The highway came through Elkader's business district. The bypass goes around the east side of town a couple of hundred yards outside the city limits. There are two access roads from town to the highway which have just recently been completed with help from the county. The other accesses are where old 13 and the new bypass split and then where they join together again.

3. About how many businesses are there in town?

Not sure.

4. Were there more or less before the bypass?

About the same. Two businesses closed in the past couple of years but the mayor said it was because of the farm economy not because of the highway bypass. One was an implement dealer and the other was some kind of farm supply store.

5. Generally speaking, how did the bypass affect the city in the following categories?

Parking - much improved, in regard to access to parking. Because there is less congestion, it's easier to park in front of the businesses on the highway.

Traffic - also improved. Since there is less through traffic, business traffic moves much more freely.

Residential - like Prairie City, they have residences located on the highway. The persons living there have indicated to the mayor that it is quieter and safer to cross the street.

Business - During construction, business in general suffered. The businesses on the highway suffered the most because 13 was torn up and equipment was in the way. It was difficult to get into town as the only accesses into town were gravel roads. After construction, things picked up kind of slowly. The restaurant on the highway lost some business to through traffic but the mayor indicated that the locals still patronize the place. The previous owner of the restaurant at

the time the decision was made to bypass sold out shortly after the DOT made their decision. A lady in town bought it then and is still in business. The grocery store on the highway hasn't noticed much change. DOT came back and reworked old 13 and things are improving for business there. The Chamber of Commerce had a city promotion during construction to draw people in. They raffled a pickup truck and other prizes. The mayor and the city clerk both indicated that the businesses had to work to get patrons into town. The Chamber of Commerce also went out to the point of the bypass and put up signs to guide people into town.

6. What type of businesses were impacted adversely? Beneficially?

Adversely - The restaurant and gas stations to a lesser degree. The town had two full service stations. The mayor told me that either after or during the construction they both changed to convenience-type stores and are doing a lot more business.

Beneficially - Business is picking up for "downtown" businesses because they are getting more traffic from neighboring towns.

Overall, the mayor indicated that business has suffered some but he didn't feel very much. He also felt that the farm economy has hurt them more.

7. What was the feeling of city government in regard to the bypass? How about the citizens?

The council was concerned about how the bypass was going to affect the businesses in town but voted for the bypass. They selected a bypass that was farther east of town but the DOT approved the one closer to town instead.

Some businessmen were against the highway moving out of town. The community in general was split, however the city clerk indicated that more were for the bypass than against it.

8. If you knew then what you know now, would you be for a bypass or against it?

For it.

Miscellaneous comments - Ninety percent of the people are happy with the end result. The bypass provided access to a camping and recreation area on the east side of town, eliminating the need for campers to pull their rigs through town to camp. It's also easier to get into and out of town for the residential areas. The DOT has been helpful with additional requests since the bypass (apparently a change from prior to the bypass). The DOT also provided signs on Highway 13 for the city (business district, camping and recreation, etc.).

The mayor is a businessman himself. He owns a Sears and Roebuck catalog store in Elkader. The city clerk is a full time city employee and has held his position since 1975.

Comments from ISU Economics Professor

Dr. Ken Stone, Associate Professor of Economics at Iowa State University, has completed several studies on factors which affect retail sales in Iowa communities of various sizes. In an interview with Dr. Stone he stated that retail sales in larger communities (populations greater than 2,000) will not be lost to competing retail centers as a result of a highway bypass or other major highway corridor improvements such as four-laning the two-lane highway if the separation distance between the competing communities is greater than 25 miles.

In spite of this finding, he stated that there are a few towns that have maintained a strong retail section in spite of being located in the shadow of a nearby shopping center.

INDEPENDENCE
Iowa DOT Study

Independence (pop. 6,392) was bypassed by U.S. 20 in November 1983. The following are summaries of interviews with local businessmen. These interviews were conducted in June 1986. Most all interviewed stated it was difficult to comment on the effect the bypass had on business because during the same time frame after the bypass was opened a considerable number of Independence residents lost their jobs as a result of Rath Packing closing in Waterloo and the layoffs at John Deere. These factors have had a substantial impact on retail sales also.

Frank Brimmer, Mayor. The bypass did not result in any major adverse economic impacts. The highway travelers seldom stopped in Independence. Most Independence residents are happy the U.S. 20 traffic does not go through town.

Pat Sells, Executive Director, Independence Chamber of Commerce. Nobody went out of business because of the U.S. 20 bypass even though the U.S. 20 corridor improvements and I-380 have also made it easier to get to larger retail centers at Waterloo and Cedar Rapids. The U.S. 20 and I-380 corridor improvements including the bypass has benefited Independence. Two new industries have located in Independence because of the improved accessibility to the interstate system.

She stated no businesses relocated closer to the bypass, nor have any new retail businesses, been established on access routes to the bypass. The former highway corridor continues to be developed. Commercial property values of existing businesses did not drop because of the bypass. She said any loss of business the past two years can be primarily attributed to the job losses at John Deere and Rath Packing as well as the poor farm economy.

Tom Martin, Vice President, Farmers State Bank. He said overall the U.S. 20 improvements including the bypass were one of the best things that have happened to Independence. The bypass has improved the shopping environment downtown and the former highway corridor continues to be developed. He said some downtown stores may have lost some sales due to the bypass but they have also failed to adjust their marketing to reflect the changed conditions. Commercial property values have not decreased along the former highway corridor.

Jim Hughes, Hughes Real Estate. He stated that commercial property values did not decrease because of the U.S. 20 bypass. There continues to be interest in developable property along the former highway corridor and the access routes. He stated, "If Independence paid a price for the U.S. 20 bypass it was worth it. The assets far outweigh the liabilities."

Mary Wiersma, Owner, Colonial Motel, and Virginia Doan, Owner, Rush Park Motel. Both stated that motel business was decreasing even before the bypass was constructed because less businessmen are staying overnight for economic reasons. Since the bypass was completed business has continued to decrease. They felt they could directly attribute the decrease in truckers staying at their motels to the bypass.

Steve Waskow, Owner, A & W Root Beer Stand and Steve's Pizza, both separate businesses located on the former highway. He anticipated that the bypass would reduce his business volume at both restaurants by 20 to 25 percent. The business volume at the A & W actually decreased by 12 to 13 percent the year following completion of the bypass. The bypass had no impact on his pizza restaurant. He did not know what portion of the business loss could be attributed to the job losses at John Deere and Rath Packing. He stated no restaurants went out of business because of the bypass. He felt the "impulse buying" restaurants (A & W, Hardee's, Dairy Queen) all lost some business but the supper clubs and cafes did not.

Mary Terry, Manager, Kentucky Fried Chicken located on former U.S. 20 highway. The U.S. 20 bypass had no noticeable impact on business volume.

Day Manager, Hardee's Restaurant located on former U.S. 20. She stated that in the two years following the bypass business dropped about 20 percent. She attributed it to the combined effect of the farm economy, the John Deere and Rath Packing job losses, and the U.S. 20 bypass.

Kerr McGee gas station. The owner thought gas sales have decreased by 20 percent in the last two years since the bypass was opened. The job losses at John Deere and Rath Packing affected his sales during those two years also as those commuters bought their gas in Independence. No service stations along the former U.S. 20 corridor have closed since the bypass was opened.

Casey's Store located on former U.S. 20 corridor. The manager stated there has been "some" loss of gas and retail sales but she could not say what was caused by the bypass and what by the decreased local economy over the same time period.

CHEROKEE
Iowa DOT Study

Cherokee (Pop. 7,004). The IA 3 bypass was opened to traffic in November 1964. U.S. 59 still goes through Cherokee. The following are comments received from businessmen who owned businesses in Cherokee before and after the bypass as well as comments from other citizens in Cherokee. These interviews were conducted on June 6, 1986.

Ray Erlandson, President, Cherokee State Bank. He said he did not recall any businesses failing after the bypass was constructed or having difficulties. Overall he felt the bypass had no significant economic impact on Cherokee. He stated that the citizens of Cherokee like having the highway traffic out of town.

George Rapson, Mayor of Cherokee before and after the bypass was constructed. He said the motel, cafe and gas station owners actively opposed the construction of the bypass. The City Council understood their concerns but felt it was in the best interest of all the citizens of Cherokee to get the highway traffic out of town. In his opinion the bypass did not affect total retail sales. He said the advantages (less accidents, improved shopping and living environment) far outweigh any disadvantages that may have resulted. He said as the town grew towards the bypass along the access roads new businesses were established.

Mr. Quinn, owner, Quinn's Mobil Station. He said no gas station went out of business as a result of the bypass, however they all lost a considerable amount of gas sales. In the 1980s with cars getting so many miles from a tank of gas he would not expect a bypass to affect service stations very much as few travelers have to stop for gas between scheduled stops.

Mr. Ruble, owner, Ruble's Amoco Station. His comments were similar to Mr. Quinn's. He added that non-local highway traffic was only a very small part of total sales.

John McWilliams, Drug Store owner. Thought bypass resulted in some loss of retail sales downtown, but nobody went out of business because of the bypass, including cafes and gas stations.

Carvel Burkhart, Mayor of Cherokee in the late 1960s after the bypass was constructed and a businessman in Cherokee during the 1960s. He felt that overall the bypass was good for Cherokee. The residents of Cherokee really like having the highway traffic out of town.

Meyer Wolff, clothing store owner in Cherokee from 1925 to 1975. He said most of the businessmen were very concerned about the bypass before it was built. In his opinion the businessmen, including himself, over-reacted. The bypass did not hurt retail sales in Cherokee. If anything affected retail sales it was the shopping mall developments in Sioux City. He felt the overall highway corridor improvements to IA 3 and U.S. 59 made it easier for people to get to Cherokee to shop.

Jay Yaggy, owned hardware store in Cherokee before and after the bypass. He was very concerned when the bypass was first proposed but it did not affect his business. He and the other businessmen overreacted he said. He felt the bypass created a much improved living environment for residents and a nicer shopping environment.

Don Speelman, owner of Lamplighter Motel and Speelman Steak House. When the bypass was constructed, he felt the bypass reduced his steak house business by 20 percent. The motel business was not affected by the bypass. He sold the motel in 1972 and sold the steak house in 1984. (Note: A former mayor of Cherokee indicated that other mitigating circumstances may have caused much of his loss of business at the steak house.)

Interview with a group of six citizens in a downtown cafe in Cherokee. They said it was nice getting the highway traffic out of town. "It was a godsend" said one woman. The reduction in accidents with highway traffic usually involved local people also. They said the city should limit the number of city streets intersecting with the bypass to control traffic in residential areas. Two of the citizens were from out of town. They felt the improvements to IA 3 and U.S. 59 have made it much easier and safer to come to town.

sources would be identified by name. They keep reminding

forthcoming, leaving some to undo the damage, or are placed

Letters

What If Hwy. 169 By-Passes Algona? It Worked Elsewhere

To The Editor:

The 169 highway problem in Algona can be solved to benefit industry expansion and to create increased stability in business operation on State Street as well as the shopping center contained within the city limits. How? Just by-pass Algona.

Most of us have been blind to observe the asset available to this city of 6,200 inhabitants. Where is it? Finn Street Project 1987. Why do I say it can be proper? I have been to a city of 8,500 population (Webster City) to inquire of business people on Main Street within their stores, their experienced transition concerning Highway 20, which now by-passes Webster City about a mile south of Main Street.

Why did I select Webster City? It is because it experienced a most drastic change in traffic on Main Street. It was Highway 20. It should be a perfect bench-mark from which to draft some important answers for beneficial use in solution of Algona's Highway 169 problem.

The highway-related businesses such as restaurants and service stations located along Main Street, even though the change has taken a percent of through traffic away, agreed that for the total good of their city they will survive and eventually enjoy any upturn in economy result of expansion progress in the future. All businesses up and down Main

Street credited the slow farm economy for their present crush as it shows elsewhere throughout the state.

Every business other than highway-related, was glad to rid Main Street of the heavy traffic to be replaced with shoppers from all the surrounding small towns, plus Fort Dodge. People come here now with ease and no fear of traffic snarls. All admit that they feared what could happen to their business at the outset, but for some unknown reason, most did not experience a crushing setback. They say, "Anyone traveling from A to C or visa versa, will never stop here anyway unless to patronize highway-related services. That was happening before and it hasn't changed."

None of those businesses of jewelry, grocery, hardware, drug store, dry goods store, shoe store, banks—you name them—spoke in negative words. All were looking ahead and thoroughly pleased that the 4-lane Highway 20 is built and that the future appears extremely bright for Webster City.

Why do those people speak so positive? It was my unexpected audience with City Administrator Bob Hayes, who said, "I am new to Webster City, but I have caught up with what Webster City is all about since my arrival in November, 1986. This place is on the upturn. We have every bit of property annexed out to that highway, plus 200 some acres on the other side. A

truck stop wanted to locate there and did so subsequent to annexation. Then Kmart came in there, and I believe in a few years it could be full. As a whole, it has created a tremendous change in Webster City's financial atmosphere. He went on to say, "If any business feels they are going to fail because of the by-pass and doesn't keep in tune with the change, they will fail, but for those looking ahead and who are observant of change and stir to create survival will succeed."

Saying further, "Once the by-pass is established, industry will be attracted. They want to locate on level land close to the highway, securing services available to them from the city with the least encumbrance. The properties will commence to be filled in the annexed area, and certainly it will be good for the city. It is working here and in every city in which I have been where this has happened of 5,000 population and more. It has proved to be a successful venture."

The same result could happen here in Algona. We want our city to grow and to prosper. Therefore, Algona's Highway 169 problem deserves intelligent study and debate.

Yours truly,

Floyd T. Bode

Fact-Finder Spokesman for Kossuth County Taxpayers Ass'n.

"Shorty The Cop" Sends Greetings Back To Algona

To The Editor:

Please renew our subscription for another year. We do enjoy the papers every week.

The weather here is very nice. We had a couple days of rain but today the sun is out and nice and bright

We don't miss the snow and cold that you have in Algona.

Hope that all of you have a Happy and Prosperous New Year.

Sincerely,

Ernie Hutchison
("Shorty, the Cop")

Sun City, Ariz.

Letters Policy

Readers are encouraged to express their views by writing letters to the editor. Material sent in should be signed and include the address of the writer. Address them to Editor, in care of this newspaper. Letters should be less than 250 words.

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A STUDY OF 76 BYPASSED CITIES

THE URBAN BYPASS

The following information was obtained from the text book Economic Analysis for Highways, by Robley Winfrey who was a former Professor of Civil Engineering at Iowa State University.

Professor Winfrey's research was based on a study of 76 bypassed urban areas of a few hundred to 200,000 population. Mostly, however, the population was in a range of 1,000 to 30,000. The cities he studied were bypassed in the 1950's and early 1960's.

He states that the effects of bypasses on traffic are easily observed and measured. But the economic and social consequences of bypasses on urban communities are difficult to observe and still more difficult to measure. Further, there has been, and still is, outspoken opposition to bypasses arising mainly from the business interests within the urban area. The general experience has been quite positive in proving that, on the whole, bypasses are economically and socially desirable. The few adversities that result are minor in comparison with the benefits and usually these adversities do not last long.

The effect of the bypass on the community is greatest when the population is small and when a high percentage of the total area trade comes from through traffic. Decreased trade is likely to be experienced by the motor vehicle service stations, restaurants, taverns, and those roadside outlets that cater especially to the highway traffic. General trade in the central business district is likely to increase after opening of the bypass. Even highway-oriented establishments experience no material decrease in business when located so that there is attraction of the local resident and local traffic. Most all studies of retail trade as affected by bypass routes have shown that the volume of business coming from the through traveler was much less than the local merchants and officials thought it to be.

Many of the bypassed business centers experience improved business after being bypassed because local residents find the business area free of congestion and with improved parking. Further, through traffic which really wants to do business will leave the limited-access controlled bypass and enter the business area knowing that there is only a small chance of encountering congested traffic and tight parking.

But the critical issue is a local retail trade. Will it be less or more after construction of the bypass?

This question cannot be answered yes or no except for each specific urban community. As a general result, there is a 2 to 1 probability that retail trade in the bypassed area will improve or decrease less than surrounding areas decrease after the bypass is opened. State sales tax records show retail business to be sustained or improved after through traffic has been shifted into new relief routes.

It is observed that highway-oriented business along a major urban route or approach route to an urban area receive a major percentage of their business from local residents and local employees.

The popular conception is that an automotive service station, a restaurant, a speciality shop, a bar, and other retail establishments on the edge of town get their major percentage of business from the through travelers. It is common experience, however, that these establishments draw high percentages of their business from local people within a range of five miles or so. The local customers patronize the highway located business because of the convenience of its location. Quality restaurants at the edge of towns draw heavily from the urban area.

Summary of Professor Winfrey's Concluding Remarks

Newspapers, records of public hearings, and the technical literature abound in reports, discussions, and histories of urban bypass highways. Each proposal brings out about the same story, including storms of protest. Even state legislatures have passed laws endeavoring to curtail the general construction of bypass routes without the approval of the bypassed community. In the end, but after some years in many cases, the bypass is constructed. Within a year or so after the ribbon cutting, all is forgiven, the people are pleased--at least 95 percent of them are--and the community gets back to normal.

The following is a summary of his findings:

1. Of the 76 bypassed areas for which information about retail trade activity is available, 50 experienced either a greater increase or a smaller decrease than occurred in a comparable area which was not bypassed.
2. Even where the total economic impact has been good, most instances studied showed that a few individual businesses will suffer from highway relocations.
3. Immediately after relocation of the highway, some decline in the economic activity of the area through which the main highway formerly passed is usually experienced.
4. If the overall economy within the area where the highway bypass was accomplished is expanding, economic growth soon provides for increased business activities which overcome any adverse impact from the highway relocation.
5. The beneficial effects on business activity which are often associated with bypass routes may be due primarily to the fact that these routes result in less congestion, and, therefore, in better traffic movement and better parking conditions for local shoppers.
6. There are indications that where an isolated community derives a major portion of its income from highway traffic, the bypassed community will suffer from some decrease in business volume.

7. Sales to through travelers make up a much smaller portion of a community's total business activity than is commonly supposed.
8. The geographical location of the highway, as well as the type of signs used, will influence the economic impact that the relocation will have upon a bypassed community.
9. Retail business in most of the bypassed cities made relatively greater gains than in the state as a whole. If business gained, it increased more than the state average; if it declined, the decline was less.

In general it can be concluded that the economic effect of a highway bypass on small communities involves an initial decline in total sales which is followed by an increase which is higher than the state average. Certain highway-oriented businesses are most adversely affected but many of these recover through adjustments toward local trade for stability. The claim that a bypass will "kill" business in a small town is refuted by the findings of numerous research studies of the economic impact of bypass facilities which have been constructed.

BYPASS STUDIES COMPLETED OUTSIDE OF IOWA

ECONOMIC EVALUATION OF TWO INDIANA BYPASSES

(No date or locations referenced in summary statement)

Highway Research Board Bulletin

This paper was developed from before-and-after studies conducted on two Indiana bypasses. The before part of the studies was made prior to the completion of the bypasses while the after part was conducted about six months after the opening of the facilities to traffic. The cities chosen for the studies, although differing in size and location, are similar to many others which are presently considering means of relieving local traffic congestion. The effects of the bypasses on traffic, accidents, land use, land value, and business in each of these two communities are presented. It is shown that these two bypasses have had significant similar, and largely beneficial effects. The bypasses effectively routed through traffic around both cities, but eased congestion in the business district of only one of them. The bypasses accelerated the urban development of the rural areas through which they passed and within a few months increased the land value of that area by 50 percent. The majority of businessmen believed the bypasses were beneficial and had not had detrimental effects on their business. A few fringe-area businesses which were primarily dependent on transient trade did suffer considerably. On the detrimental side, the severity of accidents on the bypasses, with more injuries and fatalities, more than offset the reduction in accidents which occurred within the cities. It is concluded that a bypass facility should be constructed only after a thorough analysis of all local factors and that some method, such as limited access, should be employed to control development along the route so as to insure safer facilities and maximum economic return to the state and to the users of the facility.

INTERSTATE HIGHWAY IMPACT IN THE JAMESTOWN-VALLEY CITY AREA

North Dakota State Highway Department, 1964

The 40-mile section of I-94 from Jamestown (pop. 16,280) to Valley City (pop. 7,774) was opened in October 1958, bypassing these two and the intervening towns. This study was designed to measure the impact of I-94 on business activity in the area, primarily on Jamestown and Valley City. Major findings of the study were: 1) no significant effect on overall business activity in either Jamestown or Valley City, 2) great increase in the value of choice land at the Jamestown interchange, and 3) no appreciable effect on the value of rural land.

LONG-TERM ECONOMIC EFFECTS OF HIGHWAY SD 50 BYPASS ON TYNDALL, SOUTH DAKOTA

South Dakota Department of Highways, 1967

Bureau of Public Roads

Economic and other effects are studied on the town of Tyndall, South Dakota, (pop. 1,253) resulting from the construction and subsequent use of the South Dakota Highway 50 bypass route. Sales for the town of Tyndall as a whole have not been affected by the existence of the bypass route. The non-highway-oriented type of business prospered reasonably well and was unaffected or affected positively by the addition of the bypass route.

Adverse effects were noted by the researchers on highway-oriented types of businesses (service stations, restaurants, taverns and motels). The traffic pattern has, as expected, changed noticeably after the addition of the bypass route. The through traffic has been removed from Tyndall's business district and streets which resulted in less traffic congestion and greater traffic safety along the old route through Tyndall. The new higher speed bypass facility was the scene of a number of accidents, especially during the year 1968. The dollar volume of property damage and the number of injuries have increased during the years after the addition of the bypass facility. The number of accidents and number of vehicles involved in these accidents, however, were lower each year, except during the years 1957 and 1966, on the old and the new route on South Dakota Highway 50 after the addition of the bypass route than they were on the old route through Tyndall before the addition of the bypass route.

THE ECONOMIC EFFECTS OF A HIGHWAY BYPASS ON AUSTIN
Minnesota Department of Highways, 1968

Study was made of the economic impact of a highway bypass near Austin, Minnesota, (pop. 23,020) when the alternate highway bypassed 5,000 vehicles a day or more than half of the daily total away from the main business district. Total retail sales in 1967 exceeded the 1962 figure by 18 percent, and topped the 1957 mark by 33 percent. Those retail outlets whose business volume is largely dependent on the flow of traffic past their doors, cafes, bars, and service stations, have recorded considerable gains in business volume since the traffic was diverted to the new freeway facility. Commercial activity has not increased greatly along or near the bypass route. The bypass neither decreased the value of property along the old route, nor did it put an end to construction along the old route. The greatest growth in the entire city occurred along the old route close to the bypass, and other bisecting routes that connect the downtown area with the alternate facility. The value of vacant land near the I-90 access points has undergone a tremendous increase when compared to vacant land in other parts of the city. The new facility has contributed to an exceptional safety record. The decrease in heavy traffic flow has had a favorable effect on the downtown area. The decrease in congestion has encouraged more shoppers to come into Austin.

RATON BYPASS STUDY - AFTER PHASE
New Mexico State University, 1967

This is the after phase of a study of the impact of the Bypass on Raton (pop. 8,225). Nearly six years have passed since the completion of the bypass. A surprising development is that tourist-related business has increased for the city far more than vehicular traffic. Gasoline sales are up 10 percent, motel and restaurant sales up 14 percent and employment up 17 percent in 1966 over 1958. These gains are not distributed geographically with several sections of the city declining both relatively and absolutely in almost all categories. All restaurants and all motels which were operating in 1958, except one, were still in business in 1966. Mortality rates of service stations, as might be expected, were considerably higher. The researcher concludes that the construction of the bypass did not provide the boost to a lagging economy envisioned by those who

originally requested the highway department to build the bypass, nor has it brought the disastrous decline in business predicted by its opponents.

US 70 BYPASS - GLENWOOD, AN ECONOMIC IMPACT STUDY
Arkansas State Highway Department, 1967

Before and after data comparisons are summarized pertaining to location, construction, and operation of the US 70 highway bypass route, the total effect of the new facility upon the local economy of Glenwood (pop. 1,402). The researchers found that all observed facets of the local economy received benefits from the well-designed and efficiently operating US 70 bypass facility. Retail trade, aided by improved highway transportation, is thriving. Industrial transportation has been facilitated by improved highway services. Greater freedom of access due to reduced traffic congestion has extended benefits to all civic and social institutions. Re-routing highway traffic to the highway bypass route outside the community has reduced the damage to city streets, with savings accruing to the municipal government. Land value and land use have increased. Highway traffic and local traffic have benefitted from reduced vehicle costs. These vehicle operation cost savings have been distributed to all aspects of the economy. Social attitudes have improved. A social and economic stimulation has been effected by the operation of the Glenwood bypass facility, and the people show it. The findings of this study confirm those of similar studies conducted over the entire nation, where in general the beneficial economic effects resulting from placement and operation of bypass, or alternate route, facilities have been repeatedly established.

AN ECONOMIC IMPACT STUDY OF INTERSTATE HIGHWAY 35E ON WAXAHACHIE, TEXAS
Texas A & M University, 1966

The net change in retail sales in Waxahachie (pop. 14,624) was a 1.3 percent loss. There was a 13.5 percent decline for all traffic serving businesses, a 17.3 percent decline for service stations, a 0.8 percent increase for food service establishments, and a 43.3 percent increase for motels. Nontraffic serving businesses increased by 10.0 percent. The overall increase in retail sales for Waxahachie was 7.9 percent, somewhat less than the increase for selected comparison, control towns, and for the state of Texas.

EFFECTS OF HIGHWAY BYPASSES ON FIVE MONTANA COMMUNITIES
Montana University

The objectives of this study were to determine the effects of bypasses upon the five Montana communities of Cascade, Deer Dodge, Lima, St. Ignatius and Superior, populations 604; 4,681; 397; 940 and 1,242 respectively--all 1960 figures. Generally speaking, highway-oriented firms were hurt some by reduced traffic but this was offset, in the view of some people, by increased safety. The five bypassed communities, as indicated in the report, had a wide range of effects, depending upon the nature of the community, especially the strength of local industry, upon the nature of the bypass, and upon the reaction of the community to the bypass.

Economic and Social Effects of Highways
U.S. Department of Transportation, 1972

GAIN OR LOSS IN RETAIL SALES
AND CHANGE IN TRAFFIC IN TOWNS WITH BYPASSES

<u>POPULATION</u>	<u>TOWNS HAVING GAINS IN SALES</u>	<u>TOWNS HAVING LOSSES IN SALES</u>
Less than 1,000	5	1
1,000 - 3,000	5	0
3,000 - 5,000	6	0
5,000 - 10,000	8	2
10,000 - 25,000	9	0
Over 25,000	0	1
TOTAL	33	4

GEOGRAPHIC IMPACT OF HIGHWAY IMPROVEMENTS
Washington University, Seattle

An economic analysis was conducted to determine the effect of the US Highway 99 relocation and a resulting bypass on business, real estate activity, and general features of community life in Marysville, Washington (pop. 5,080). The study period, January 1953 to December 1955, permitted a comparison of study area with nearby areas before and after the completion of the bypass in November 1954. The principal factors used for comparison were: (1) retail sales data, (2) land values, and (3) tax data. It was concluded that: (1) eating and drinking places were doing about the same amount of business in the two periods, and (2) there was a net gain to the community since businesses experiencing increased sales had an absolute increase greater than those businesses experiencing decreased sales during the time period analyzed.

A BYPASS ECONOMIC IMPACT STUDY OF CIRCLEVILLE, PIQUA, AND ST. CLAIRSVILLE, OHIO
Ohio Department of Transportation

This report presents the findings resulting from the bypass of three Ohio cities. The cities were Piqua, Circleville, and St. Clairsville, with populations of 19,219; 11,055; and 3,865 respectively. Indicators for which data were evaluated in the business activities phase were gas stations, restaurants and bars, motels, apparel, auto, drug, food, furniture, lumber, machinery--farm and industrial, and miscellaneous. A total category for all industry groups was also recorded. Other phases included an O & D survey, a parking survey, traffic counts, and the compilation of land value data from land assessment records. An examination of highway oriented facilities revealed some interesting facts. From 1955 to 1960 the gasoline gallonage sold decreased from 1 percent, 44 percent, and 51 percent for the largest to the smallest of the cities. After the bypasses opened, the stations began to specialize more in auto repairing and servicing with the result that in 1960 service station sales had increased by 126 percent for Piqua and 227 percent for Circleville, of the 1955 level. St. Clairsville had previously depended for a large percentage

of sales on tourists and had recovered to only 82 percent of the 1955 figure in 1960. Data for all three population centers indicate that motels were adversely affected by the bypass. Motel income of four motels in St. Clairsville, smallest population center and heavily dependent on tourists, decreased by 50, 4, 5, and 40 percent. Decreases in income at two Circleville motels were 41 and 15 percent with one motel reportedly deriving a large portion of its revenue from business people with advance reservations. The Piqua motel decreased by only 3.6 percent. This was accounted for by its being the only one in the area, and the owner reported that demand in the past has almost always exceeded supply. However, since the 1950s motel business has changed. There are now more chains and use of advanced reservations which decreases the economic impact of a bypass. Data for restaurants could not be segregated from the eating and drinking group, and the researchers determined that the results were too spotty for firm conclusions. The final general conclusion of the researchers was that highway bypasses around population centers may alleviate congestion and greatly improve the flow of traffic, but they may cause small adverse economic changes.

LIMITED ACCESS BYPASSES IN CALIFORNIA
Highway Research Board Special Reports, 1957

Limited access bypass studies of 12 California towns were completed. Each of these studies has taken into account the various indices being considered in the Virginia study. If all of the business activity, population growth and general community development were analyzed and the subject community was found to compare favorably or about the same in advance or decrease with other comparable cities or counties, it could be assumed that it would continue to follow that trend, all things being equal. However, a certain magazine took all of the California studies and just combined percentages. This failed to show any differentiation between the various types of bypasses. Even though the combined percentages came out fairly well, the implications were not relevant.

SUMMARY OF FINDINGS

Over 140 bypassed communities were studied in the various reports referenced in this literature review. While the actual beneficial and adverse consequences of a highway bypass will be unique to each community, the following observations and inferences are supported by these studies:

- The larger cities (populations greater than 2,000) will derive greater benefits and fewer adverse impacts from a highway bypass.
- The adverse economic effect of the bypass on cities is greatest when the population is small (populations less than 500) because a greater percentage of the total area trade comes from through traffic.
- The effect a bypass has on communities with a population of 500 to 2000 will depend on local factors such as the type of community (i.e. bedroom town or isolated community) traffic mix, percent of through traffic, and location of retail trade establishments.
- Service stations, small cafes, convenience stores, and motels are the most likely to experience a decrease in retail sales. However, many of these businesses find that the total volume of business from the through traveler is very small in comparison to overall sales.
- Service stations which do more than just sell gas are the most likely to remain in business after the completion of the bypass.
- Because of current fuel economy standards few travelers stop for gas between their origin and destination.
- Restaurants and cafes that have a good local reputation draw a high percentage of their business from local people within a range of five miles or so. Many cafes found that the bypass had minimal effect on their business.
- Advertizing on the bypass route will significantly reduce the adverse impact to motels.
- Customers find the bypassed business district to be a more comfortable and safer environment to shop in as a result of decreased conflicts with traffic.
- Sales to through travelers make up a smaller portion of total sales than is commonly supposed.
- Often new businesses will open or existing businesses will move to other streets that serve as the entrance to the city from the bypass.
- After the completion of a bypass the communities on the whole feel that the few adversities that result are minor in comparison with the benefits.

- The alternative to a small town bypass is to four-lane the existing highway through town. This alternate almost always results in as much local opposition as the bypass alternate.
- Improvement of the existing alignment through town often results in utility relocation and replacement costs which are often cost prohibitive for small towns.
- Traffic congestion and accident rates improved dramatically along the bypassed highway route through town.
- For the growing community the sooner the bypass is built the less costly it will be and the sooner its benefits may be realized.
- When planning a bypass it is important that the bypass does not create a barrier to growth of the community in a natural direction.
- Development of the community across the bypass route should be discouraged to minimize traffic conflicts at bypass intersections.
- The thousands of road users who will benefit from a highway bypass and the residents of the bypassed community who would benefit from the removal of trucks and through traffic from the community are seldom heard from or adequately considered during the decision making process.
- The smaller the community the more likely the local business interests will be the primary consideration of the local government in their decision making process.

The bypass alternative is not always the best alternative to improving traffic operations and safety within a highway corridor. Any alternative including the do nothing alternative will result in some adverse impacts. The final decision must be made after weighing the probable consequences, beneficial and adverse.

The local officials have the responsibility to make a choice that is in the best interests of the entire community, not just special interest groups. The state government similarly has the responsibility to make the decision which is in the best interests of the entire state. Both interests must realize that no matter what decision is made there will be some resulting adverse impacts.

