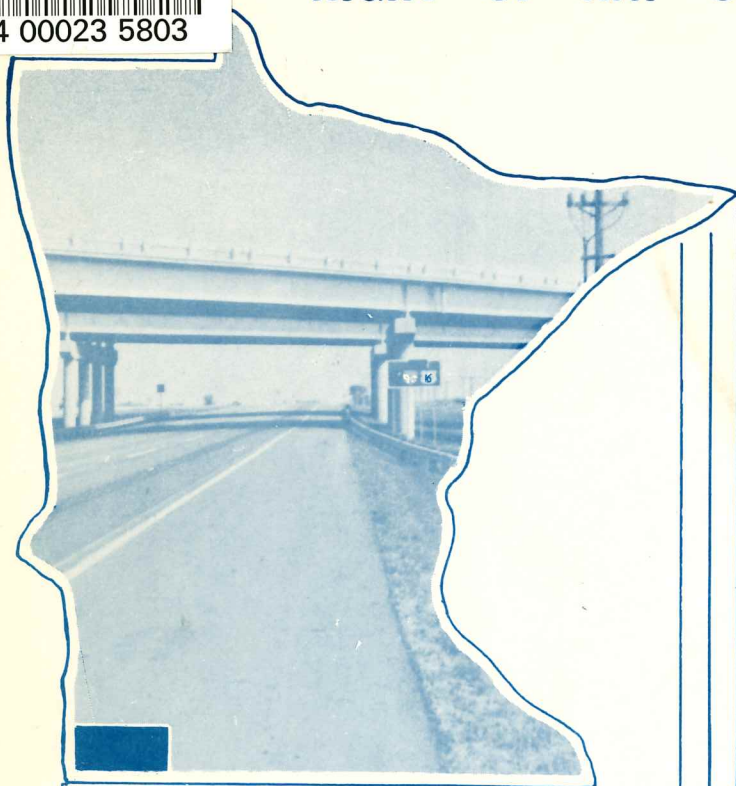
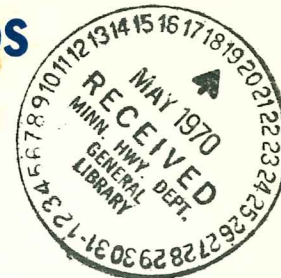


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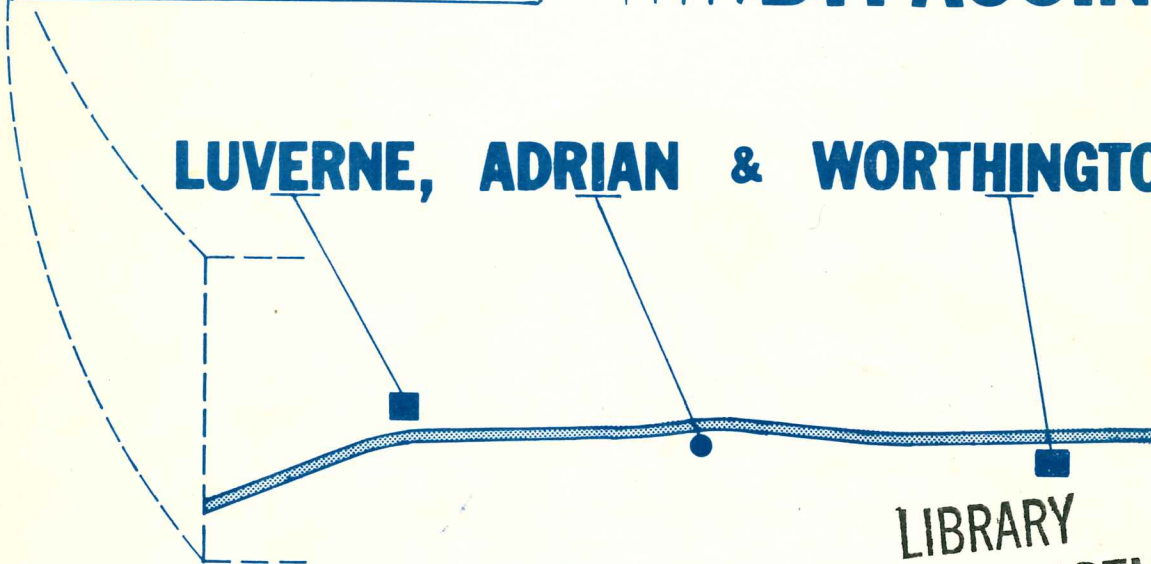


RIGHT - OF - WAY STANDARDS



THE ECONOMIC IMPACT OF A FREEWAY BYPASSING

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THE ECONOMIC IMPACT OF A
FREEWAY BYPASSING
LUVERNE, ADRIAN & WORTHINGTON
MINNESOTA

RESEARCH AND STANDARDS DIVISION
OFFICE OF RIGHT OF WAY STANDARDS

April, 1970

*Thomas W. Balcom, B.A. Geography
University of Minnesota*

A RESEARCH REPORT
for the
MINNESOTA DEPARTMENT OF HIGHWAYS
and the
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

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PREFACE

- Analytic Method and Data Sources

The general introduction to this report is designed to analyze the developments in highway transportation as they relate to the profound economic changes that have taken place in Minnesota and in our nation in the last forty years. This is incorporated into the analysis of the characteristics common to Luverne, Adrian, and Worthington, the specific subjects of the report.

The communities will then be analyzed separately, with the impact of Interstate Freeway 90 serving as the primary focus of the report. The changing traffic and land use patterns in the communities, as a result of the advent of I-90, will be utilized to examine various developments in Luverne, Adrian, and Worthington during the 1960's. Thus, in analyzing the impact of I-90 on these communities, the major emphasis will be on past and present economic conditions as a guide for possible future developments.

Information and data for this report were gathered from a variety of sources. The background information was supplied by the following publications:

- J. R. Borchert, "Projection of Population and Highway Traffic in Minnesota", 1963.
- Southwest Minnesota State College, "A Study of Industrial Branch Plants Located in the Countryside of Minnesota", 1968.
- Office of Local and Urban Affairs, Newsletter, "Regional Development Commissions Authorized for Minnesota", July, 1969.
- J. R. Borchert & Others, Upper Midwest Economic Studies, Numbers 2-8, 1963-64.
- J. R. Borchert & D. P. Yaeger, Atlas of Minnesota: Resources and Settlement, 1968
- J. R. Borchert, Upper Midwest Urban Change in the 1960's, June, 1968.

► Bypass
report
method-
ology

► Data
sources
for
intro-
duction

This information was supplemented by statistics from the Industrial Division of the Department of Economic Development, and the Planning and Programming Division of the Minnesota Department of Highways. The Minnesota State Planning Agency provided information concerning Regional Development Commissions.

*Data
sources
for indi-
vidual
communi-
ties*

In the study of Luverne, Adrian, and Worthington, city and county planning reports were especially helpful in formulating a general picture of the communities and the area as a whole. The primary statistical indicator, retail trade sales volume, was derived from the U. S. Census of Business for the years 1954, 1958, 1963, and 1967.

This retail business volume data was supplemented by other indicators of economic conditions in these communities:

- Bank debits and building permits from the Federal Reserve Bank were analyzed in all three communities.
- The Northwest Petroleum Association provided statistics regarding gasoline gallonage.
- Data concerning business volumes on Oxford Street in Worthington was compiled by the Minnesota Department of Taxation.
- The Department of Employment Security supplied employment data and information for the City of Worthington.
- Land value data compiled by the city and county assessors in Worthington was also available.

Traffic volumes, supplied by the Planning and Programming Division of the Minnesota Department of Highways, were utilized to illustrate changing traffic patterns and their effects on economic conditions in the communities. The aspect of traffic safety was analyzed from accident data provided by the police chiefs of Luverne and Worthington.

*Personal
inter-
views con-
sidered*

Personal interviews with the city and local corporation officials, as well as retail merchants, substantiated and reinforced the economic trends in Luverne, Adrian, and Worthington, as derived from the above sources, over the last ten to fifteen years.

- Limitations of the Report

There are several difficulties in assessing the economic impact of I-90 bypassing the communities of Luverne, Adrian, and Worthington. First, traffic patterns in the southwestern part of the state are in a transitional stage. As various stages of I-90 were constructed from the state line to Worthington, considerable disruption of traffic patterns resulted. Second, the freeway is a relatively new phenomenon to these communities. Luverne was not bypassed until 1966; Adrian in 1968; and Worthington was still not bypassed at the time the field research for this report was conducted, although the bypass was opened to traffic in October, 1969. Third, at the present time I-90 is incomplete from Worthington to Albert Lea, a distance of 116 miles. Thus, much of the long-distance, east-west traffic has been diverted to the recently completed Interstate Freeway 80 across Iowa and Nebraska. Also, the four-lane expressway from the Twin Cities to Worthington and beyond is not yet complete. Many people claim that the full effects of this highway network will not be felt in southwestern Minnesota until the routes mentioned above have been completed. The Minnesota Department of Highways, at this time, plans to continue a study on these communities and other cities to the east along I-90 when this network is completed.

At the time the research was conducted for this report, in the summer of 1969, the effects of inflation, high interest rates, and high building costs were being felt. These factors must be taken into account in any consideration of the economic conditions of these communities.

It is very hard to pinpoint rises or drops in business caused directly by a new freeway. Thus, an important element in assessing freeway impact is the general feeling held by residents and businessmen in the community. Seldom, if ever, are benefits of a new facility, such as I-90, distributed evenly throughout the community. Interviewing local merchants revealed conflicts of personal opinions. If an individual merchant felt that he was affected, either positively or negatively, by the rerouting of traffic, it was usually reflected in his opinions about the future of his business and the overall impact on the whole community. It appears, however, from statistics and the majority of opinions concerning I-90, that the benefits of the bypassing far outweigh the detriments in all three communities. It is necessary to point out that this conclusion and others that follow, while appropriate for Luverne, Adrian, and Worthington, may not apply in other communities. The size of the town, sources of its income, type of firms, attitudes of local businessmen and officials, spending propensities of diverted through traffic, and location of the bypass route are all factors that could affect the impact of rerouting traffic around a community rather than through it. *

*Control
factors
in a
bypass
study*



* Factors were derived from "The Economic Effects of a Highway Change on Faribault, Minnesota", 1960, by University of Minnesota personnel.



Figure 1. Sign on T.H. 60 northeast of Worthington indicates approach to the interchange with Interstate 90. The bridge in the background will carry Interstate traffic over T.H. 60. At the present time, I-90 is completed from the west to T.H. 60, with the westbound entrance ramp and the eastbound exit ramp of the interchange open to traffic. East of Worthington, all east-west highway traffic must travel on U.S. Highway 16 until I-90 is completed.

GENERAL INTRODUCTION

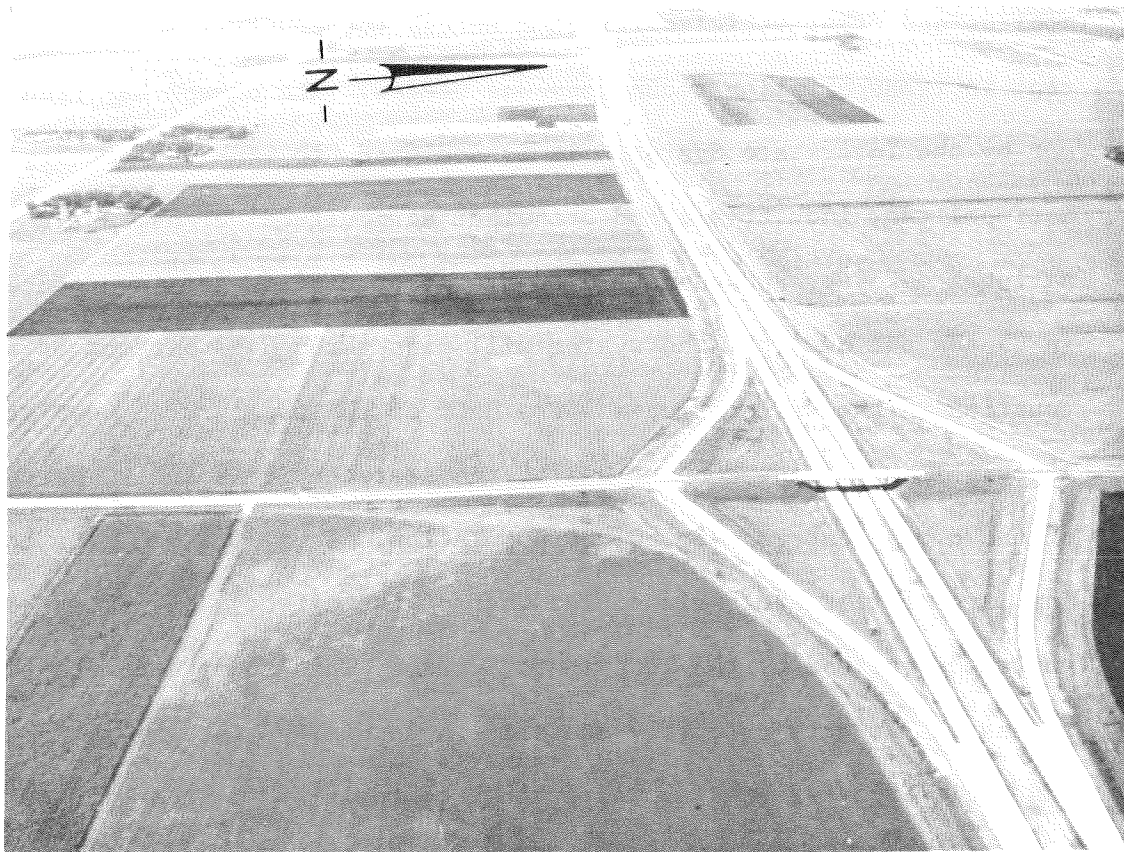


Figure 2. The new replaces the old. The road in the upper left-hand corner of this picture, formerly U.S. Highway 16, has been replaced by I-90, a four-lane, controlled-access freeway. I-90 is now the major highway traffic carrier in the southwestern part of the state. Most sections of old U.S. Highway 16 in Rock and Nobles Counties have been relegated to state or county control.

ABSTRACT

A basic change in traffic composition has occurred in the last two or three decades, contributing much to changing the planning and design of highways. Originally the highways leading to a community were built for people in the local trading area. As speed, quality, and ease of transportation improved, an increasing number of automobiles and other vehicles traveled across the country. A new concept in transportation technology was needed. The demand has been met by the Interstate System. It is designed to link the country's metropolitan, industrial, and principal agricultural areas, serve the national defense, and connect with routes of continental importance in Canada and Mexico. The system will pass through 37 percent of all counties in the United States where half of the total rural population lives. It will also connect all of the state capitals and 90 percent of the urban centers over 50,000 population. Thus, the benefits to the large cities are obvious, but what of the effects on smaller communities bypassed by the Interstate System? This study attempts to assess the impact, primarily economic in nature, of interstate freeways and their bypass routes around typical communities of under 10,000 population - specifically Luverne, Adrian, and Worthington.

*Changing
highway
technology* ◀

*Focus on
impact* ◀

HIGHWAY TRANSPORTATION DEVELOPMENT

Since the beginning of the automobile era in the 1920's, and especially after World War II, business and population have congregated in the large urban centers. Changing patterns of population distribution and potential can be related to fundamental elements in the nation's changing economy, technology, and geography. The highway traffic system plays an important role in these changing patterns. In a recent study it was found that observed traffic on a highway system, within any given county, has two major components:

- 1) an intra-county component, related to local population or population density; and
- 2) an inter-county component related to the potential of the county within the system.*

The study went on to report that,

"In Minnesota, an analysis and projection indicates that . . . the traffic burden on the highway system will become increasingly unevenly distributed geographically, despite general growth throughout the system. This will result from continued concentration of the State's population growth in the Twin Cities and other major urban areas . . . Portions of the (highway) system will become, increasingly, regional networks serving multi-county trade areas or urban complexes." **

These concepts of accessibility and population growth can be better understood if viewed in historical perspective. In studying the series of maps on the following page, the stable pattern of "ridge lines" designating relatively high population potential from 1870 to 1960 can be seen.

*Borchert, J. R., "Projection of Population and Highway Traffic in Minnesota," 1963, p. 42.

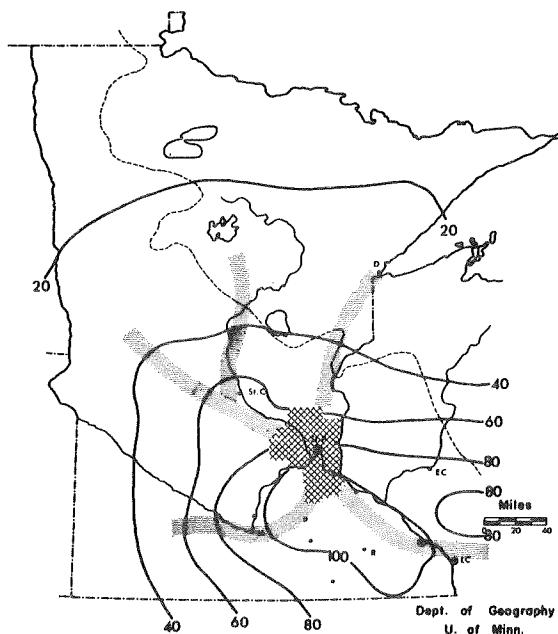
** Ibid, pp. 42-43.

*Profound
changes
in total
environ-
ment*

*Impact
of
changes
on the
highway
network*

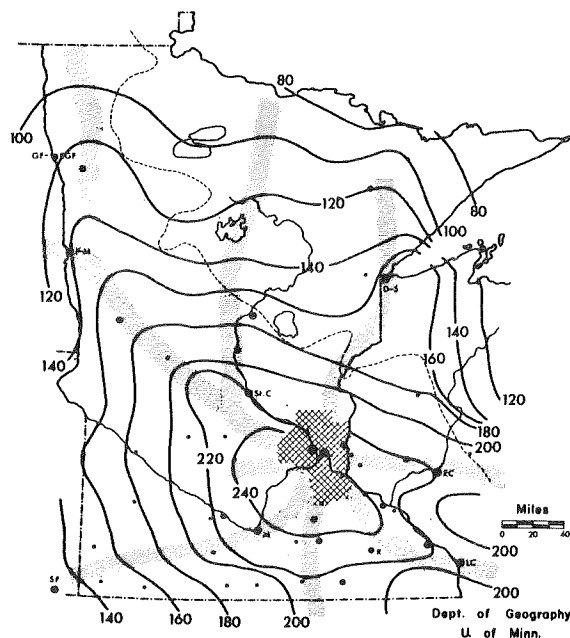
POPULATION POTENTIAL 1870

TCMA = 0



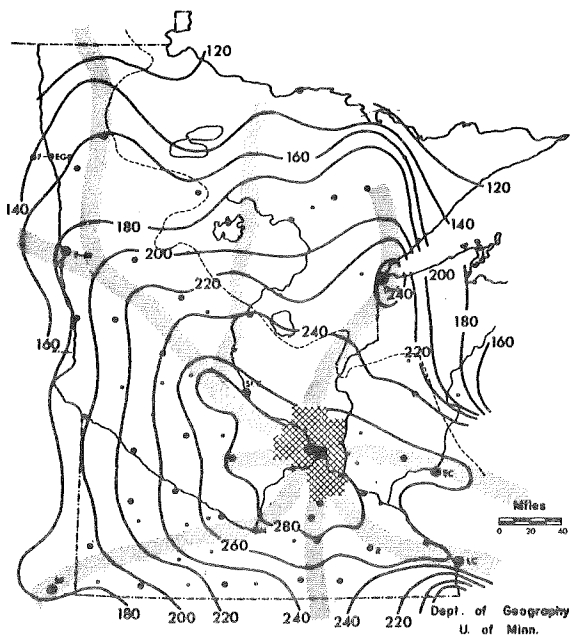
POPULATION POTENTIAL 1900

TCMA = 0



POPULATION POTENTIAL 1930

TCMA = 0



POPULATION POTENTIAL 1960

TCMA = 0

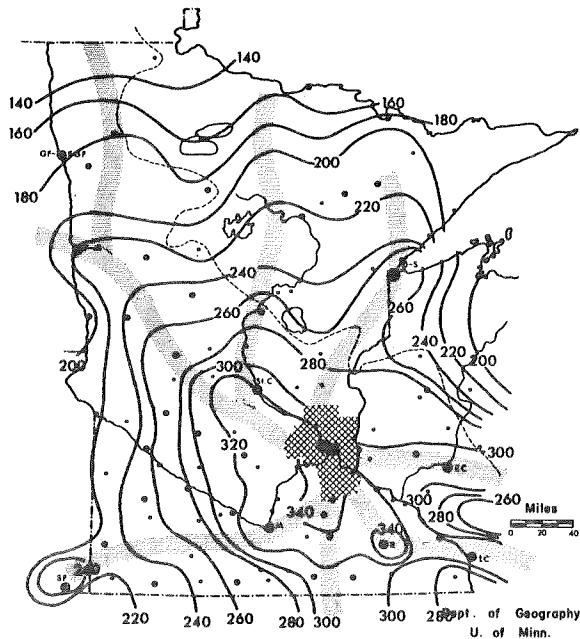


Figure 3. Population potential, excluding the five-county Twin Cities Metropolitan Area (TCMA) over the past nine decades. Solid circle sizes are proportional to city populations in each census year.

"This supports the hypothesis that accessibility and population growth reinforce each other. These ridges are along the lines of early wagon roads, lines of settlement, railways, and major highways. The early towns were both centers of demand and points of competition first for rail and later for highway transport. The position of these places in the transportation network, in turn, surely helped to accelerate their growth." *

These broad national and regional forces can be utilized directly in deriving traffic estimates for long range highway planning and programming. The present Interstate System in Minnesota is based on just such a pattern of accessibility and population potential. Also, past and future upgrading of conventional two-lane highways to expressway and freeway standards is related to this pattern.

*Basis for
Interstate
and Ex-
pressway
Systems*

Recently, there has been a revolution in travel. Not only have volumes increased, but the characteristics of travel have also changed drastically. As speeds increased and highway conditions improved, commercial and private travel became more of a long-distance, point-to-point type of travel, with a minimum of stops along the way. For example, vacationers heading west with a limited amount of time are interested in getting to the Black Hills, Yellowstone National Park, or California as soon as possible. Also, commercial hauling has become much more of a long distance operation. Trucking firms want to get to their destinations as fast as possible without the delays resulting from the stopping or slowing of traffic.

*Revolu-
tion in
travel*

The freeways of the Interstate System are designed to satisfy the conditions of both of these modes of travel. More and more

*Borchert, J. R., Op Cit, p. 25.

vehicles are traveling on interstate freeways every year. The completed system will compose only 1.3 percent of the total highway mileage, but by 1975 it is expected to carry over 20 percent of the vehicle traffic in the country. *

COMMON CHARACTERISTICS OF ALL THREE COMMUNITIES

- The Southwestern Highway Corridor

Historically, the two-lane routes forming the corridor from the Twin Cities to Sioux Falls, South Dakota were U. S. Highway 169 from the Twin Cities to Mankato, State Highway 60 to Worthington, and U. S. Highway 16 to Sioux Falls. Recently this route from the Twin Cities to Worthington was designated for expressway standards. Four-lane divided highway construction has been completed from the Twin Cities to Lake Crystal, southwest of Mankato. Highway 60 expressway construction to Worthington is expected to be completed some time after 1973.

*Express-
way and
freeway
constru-
ction in
Southwest-
ern Minn-
esota*

◀ In the last decade, Interstate Freeway 90 has been constructed from the west state line to State Highway 60, east of Worthington. Instead of replacing former U. S. Highway 16, which runs through several communities in Rock and Nobles Counties, I-90 has been constructed parallel to T.H. 16, bypassing the small towns and cities along the way, generally at a distance of not more than one-half mile. This segment of the corridor constitutes the major focus of this report.

* Scanlon, Thomas P., "Patrolling the Interstate System", 1964, p. 4.

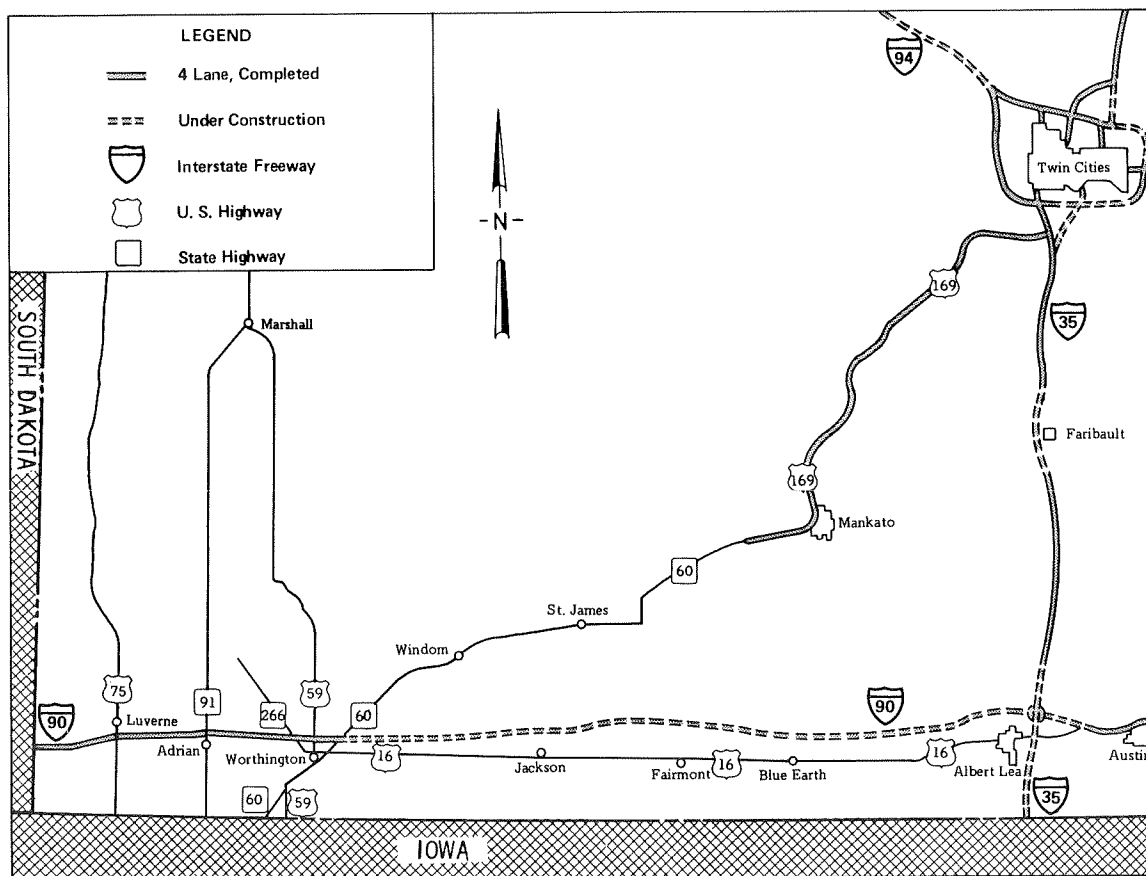


Figure 4. Major highway network in Southern Minnesota at the present time. Expressway construction on T.H. 60 is progressing southwesterly from Mankato. The anticipated completion date in Minnesota is 1975. The uncompleted portion of I-90 is in various stages of planning or construction. Tentative completion date has been set for 1974.

As mentioned previously, there are a larger number of automobiles and commercial vehicles traveling longer distances and more frequently every year. Thus, as the volume of through traffic in the outstate area increases, highways designed to serve only local needs have an added function. They must now serve both local users and through traffic. U.S. Highway 16 is such a road. When it was built in the 1930's, Highway 16 was considered one of the superior transportation facilities in the state. It served the interests of the farmers and city people

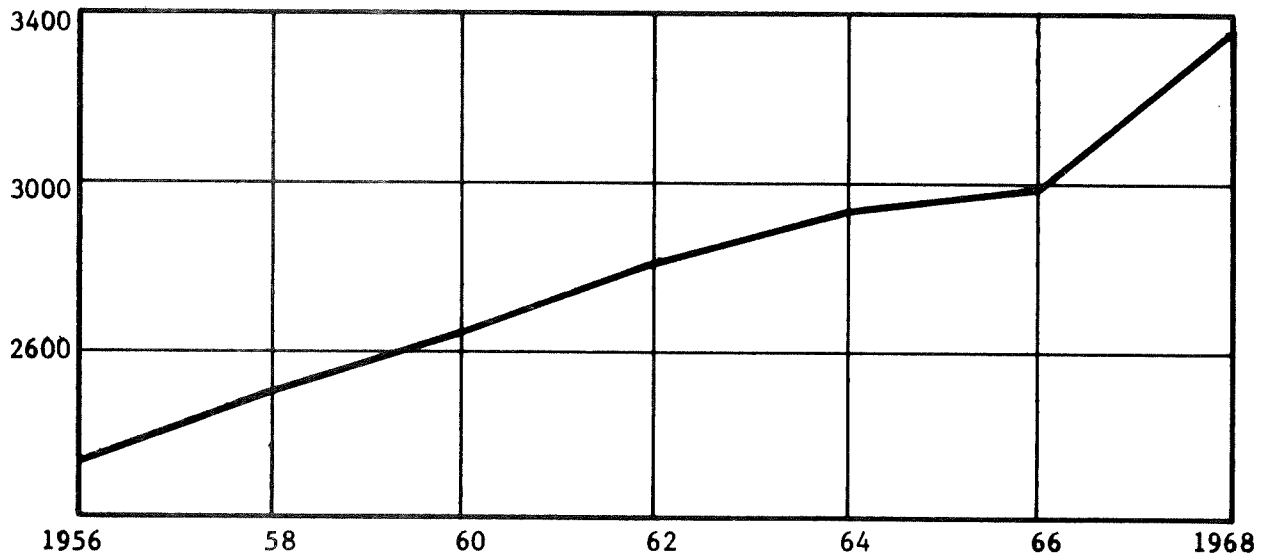
Additional burden on conventional two-lane highways

U.S. 16
rendered
obsolete

in this rich agricultural area of the state for many years. As travel distances and traffic volumes increased across the state, U.S. Highway 16 began to deteriorate. At the same time, traffic volumes surpassed its design capacity. The graph below illustrates the increasing trend of traffic volumes along the corridor between Worthington and the state line from 1956 to 1968.

Figure 5.

Generalized ADT on Hwy. 16 *
From the State line to Worthington



Source: Planning and Programming Division of the Minnesota Department of Highways, St. Paul, Minnesota.

* As various segments of I-90 were opened to traffic, the ADT (average daily traffic) counts were taken on the freeway rather than on old U.S. 16.

In assessing the economic effects of this increased traffic on I-90 around the communities of Luverne, Adrian, and Worthington, rather than through them, it is important to know in what years they

were bypassed. The map below illustrates when the various sections of I-90 were opened to traffic from the state line eastward to Worthington.

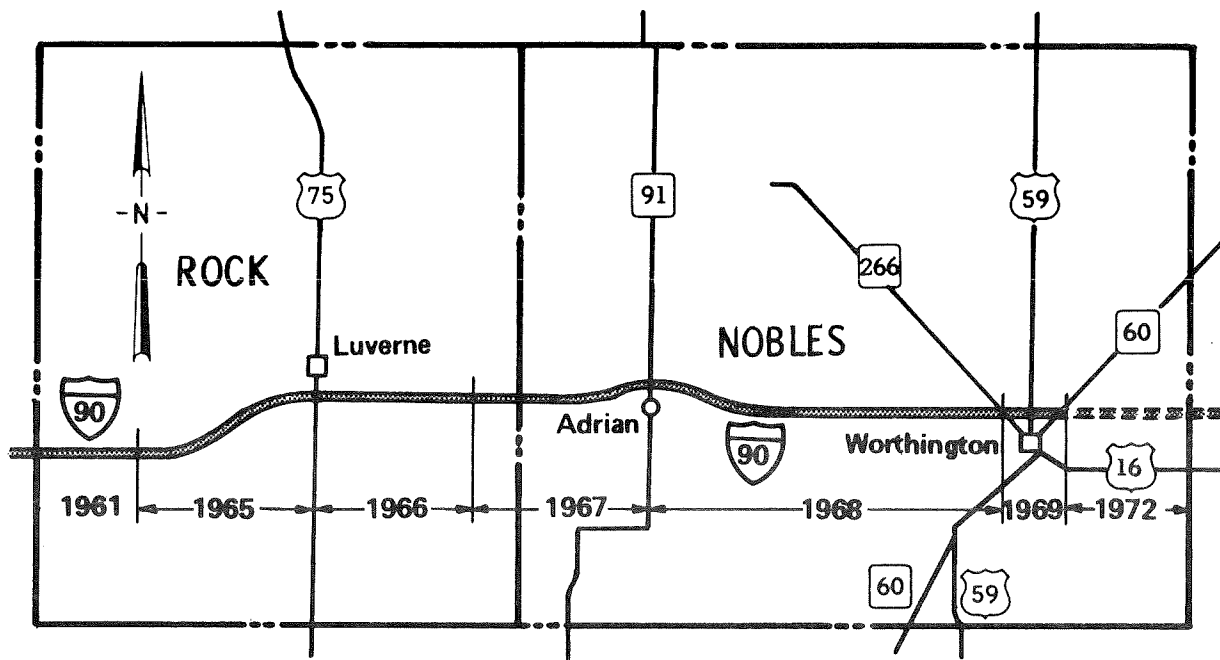


Figure 6. I-90 completion dates in Rock and Nobles Counties. The freeway east of Worthington is under construction. It is not expected to be open to traffic until 1972.

- The Role of Planning


Developments in the automobile era have rendered many locational patterns of land usage in communities settled in previous eras obsolete and dysfunctional. There have also been profound changes in the economy of the Upper Midwest. To elaborate:

"... the Upper Midwest's urban settlement pattern has been undergoing major, long-term rearrangement and expansion. These settlement changes have accompanied the transition from a natural resources-based economy to greater reliance on manufacturing and services. Except for the farm product, wood, and ore processing

Changes in urban settlement pattern

*Human
resources
are of
primary
importance* 

industries, these are generally 'footloose' activities. This means greater dependence for a sustained or growing economy upon the resource of people who live in the region and have commitments here. Most of the region's industrial and service growth has been the result of the efforts of such people. Involvement in the continued reorganization, maintenance, and improvement of villages and cities is one important element in the retention of this human resource and the future of the region." *

*Recent
planning
activity* 

More orderly urban development is a goal of many community leaders in the Upper Midwest and throughout the nation. Planning attempts to reach this goal by providing intelligent guidance for growth and change. In the past decade, the cities of Luverne and Worthington, as well as Rock and Nobles Counties, have been engaged in extensive planning programs. Adrian expects to initiate a planning program soon. The basic structure of this planning process is a citizens' commission responsible to elected public officials. The commission hires a planning firm and together they work to:

1. understand the existing physical pattern of the community (or county) and the external conditions affecting it.
2. project future conditions.
3. formulate needs and priorities.
4. make policies designed to guide current changes toward future objectives.

* Borchert, J. R., Upper Midwest Urban Change in the 1960's, June, 1968, p. 13.

- Regional Development Commissions

With each individual county carrying on its own planning program, there is little coordination between the counties on a regional or statewide basis. Also, the boundaries of existing multi-county regions or districts, used by various agencies and organizations at all levels of government, often overlap and conflict. This problem was recognized at the beginning of 1963 in an Upper Midwest Economic Study:

Lack of coordination in planning in the past

"It appears that it would be of great value to the Upper Midwest to have regional urban planning organizations focusing on major centers and covering appropriate county or multi-county areas, to consider such questions as where new capital outlays should be concentrated, what functions of certain communities have become obsolescent, and what long term policies are called for by the answers to these questions." *

During the last two years, the Minnesota State Planning Agency has been engaged in studies to establish such a framework of multi-county regions for greater coordination between the local, state, and federal levels of government in planning and administration of services and programs. This culminated in the establishment of a regional framework by Executive Order and legislation in 1969. The regions set forth represent groupings of counties based on natural, social, and economic factors which indicate common characteristics and interests. Also embodied in the Act is the identification of 'transitional' counties, giving the framework a degree of flexibility. When this regional framework is made operational, its primary objectives will be to coordinate planning activities and to stimulate local involvement in the development of the state.

Regional framework set up

Individual commissions now being organized

* Borchert, J. R., "The Urbanization of the Upper Midwest: 1930-1960", UMES No. 2, Feb., 1963, p. 20.

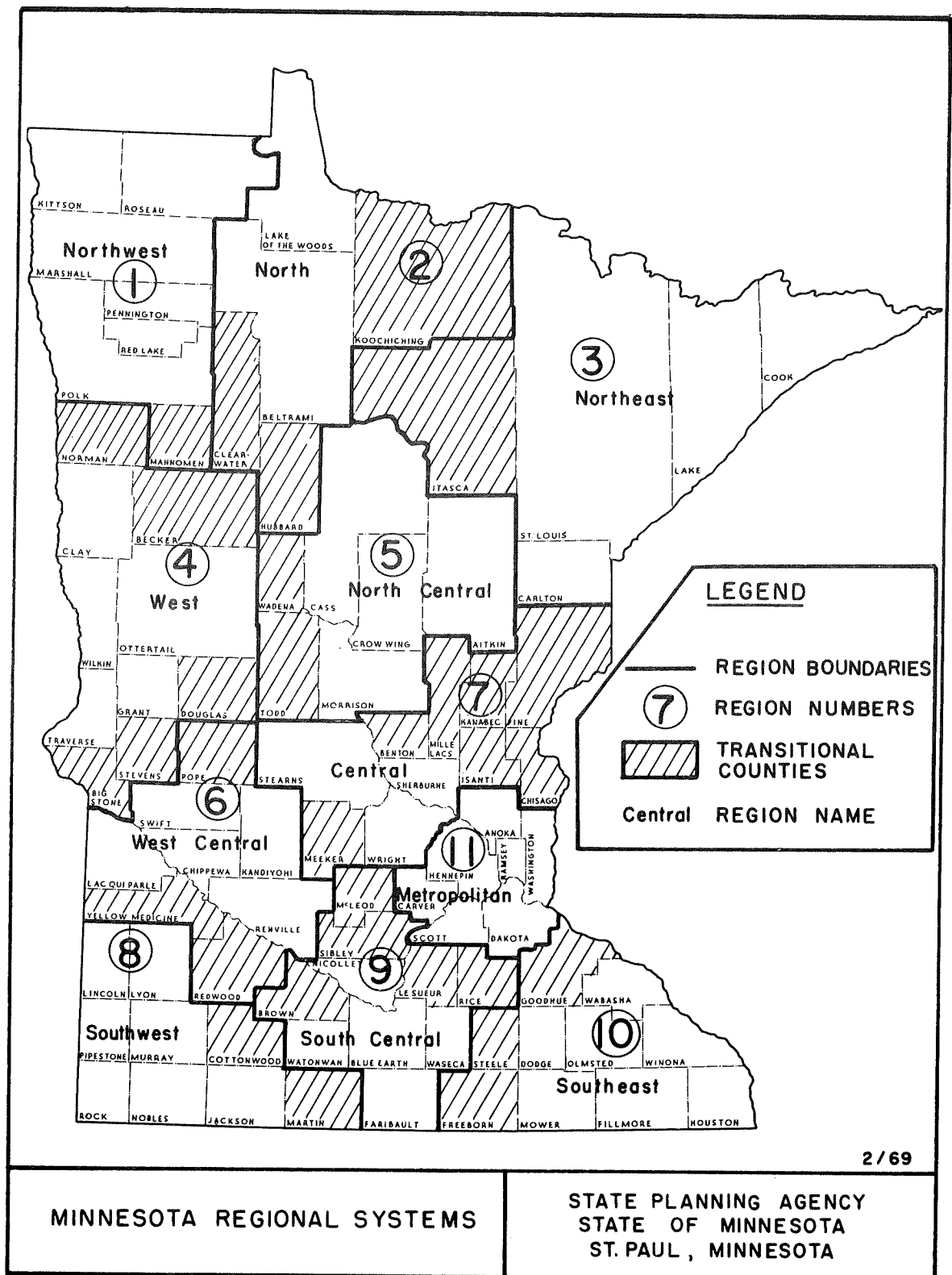


Figure 7. Minnesota Regional Systems, created in 1969. In the next biennium, it is not expected that more than two or three regional development commissions will be organized. These next two years will provide an opportunity for counties to experiment with this relatively new concept.

- Community and County Cooperation

Thus, a common tie between Rock County and Nobles County is the inclusion of both in the Southwest Regional System. This was justified by the relatively high degree of interaction and cooperation between the two counties in the past. The advent of Interstate Freeway 90 has enhanced this partnership by bringing the county seats of Luverne and Worthington closer together in terms of travel time and interaction frequency.

*Ties
between
Rock and
Nobles
Counties*

This effect of I-90 can be illustrated with a general attitude expressed by a resident and businessman in Adrian and shared by the progressive people in all three communities. To paraphrase:

This area has an agriculturally-based economy, but farm population is decreasing. As other sectors of the nation's economy assume greater relative importance, we must change with the times. The freeway has given the area, and especially the cities on I-90, the opportunity to change. It is up to the communities to take advantage of the freeway, because the freeway brings the world in or allows it to go by.

*General
attitude
regarding
I-90*

- Industrial Development

The civic leaders, councilmen, and board members of Luverne, Adrian, and Worthington are looking at the freeway with the thought of 'what will it do for the community and how can we take advantage of it?' One way of 'changing with the times' is through the attraction of industry to a community. Location near a superior transportation facility such as I-90 is a large plus factor in the ability to attract industry. Of course, in the final analysis, it is the residents themselves who convince an industrial concern to locate in their community.

*Attraction
of industry*

As Governor LeVander stated on a recent trip to this area:

*Future
of South-
western
Minnesota* ◀

"I am convinced southwestern Minnesota has a tremendous future mainly because of the determination of the residents of the area. While dependent to a large degree on agriculture, the area is convinced it can attract new industries. The success in the past few years has been astounding and it appears to me that an even bigger breakthrough in industrial development is right around the corner." *

*Industrial
develop-
ment of
Southern
Minnesota* ◀

Population growth in recent decades has reflected the forces of change in the automobile era. Counties gaining population recently have been located mainly in the southern one-third of the state - south of a line approximately joining Eau Claire (Wisconsin), Brainerd (Minnesota), and Sioux Falls (South Dakota). This is due primarily to the rising share of manufacturing concerns located in the smaller cities of this southeastern 'industrial triangle'.

"As centralization characterized the rail era, dispersal has been the watchword of the auto age . . . Dispersal has aimed mainly at lower land and labor costs for production facilities." **

*Citizen
activism* ◀

The lack of attention paid by communities to the development of industry within their boundaries may indicate that the community will eventually become extinct. In general, the people of a community may be satisfied with a status quo, but if a few very active individuals strive hard enough, they are sometimes able to change the community attitude. For example, in a study of the location of branch plants in outstate Minnesota, it was found that Chamber of Commerce officials

* Worthington Daily Globe, July 23, 1969.

** Borchert, J.R. & Yaeger, D.P., Atlas of Minnesota: Resources and Settlement, 1968, p. 99

are very interested in having industries relocate in their communities. Added employment means larger payrolls and more money in circulation, which benefits all commercial establishments in the area. It is especially beneficial if the new or expanded industry brings or attracts new people into the community. The influx of new residents means more customers for the local merchant, more new homes, and much more money spent in the retail area. The State Department of Economic Development has developed a general model for 'what 100 new factory workers bring to a town':

- 359 more people
- 91 more school children
- \$710,000 more personal income per year
- 100 more households
- \$229,000 more in bank debits
- 3 more retail establishments
- 97 more passenger cars registered
- 65 more people employed in non-manufacturing
- \$331,000 more in retail sales per year

Benefits
of new
industry

The Industrial Division of the Department of Economic Development works with the private sector of the community, usually in the form of an industrial development corporation, and governmental agencies to achieve the optimum economic growth for the area. The Division is also involved with local industries and possible new industrial prospects to help in terms of expansion and relocation, respectively. The emphasis of the program is on multi-community and multi-county cooperation to achieve this optimum economic growth. The Industrial Development Department of the Chicago and North Western Railway is also involved in this type of activity in the communities this company serves with rail transportation.

Aid in
industrial
development

*Benefits
of a good
road
system*

A good road system - freeways, main arteries, and feeders - has proven to be a catalyst for diversified jobs in cities of rural areas. This continually expanding economic opportunity base tends to hold population in an area, as evidenced by the strength of Worthington as a regional center, contributing to the continuing growth of Nobles County.

- Separate Interests to be Served

*When
congestion
is
recognized*

This is the fifth in a series of studies by the Minnesota Department of Highways designed to assess the economic impact of bypass routes on various Minnesota communities. As transportation problems in a given community increase, pressures from various sources are directed toward doing something about highway location. The decision will be supported by previous land economic studies, needs, indices, and available funds. In addition, an important influence comes from various interests in the community and the pressures exerted by each in its own behalf.

*Similar
interests
in other
communities*

In conducting interviews, it was found that Luverne, Adrian, and Worthington all reflect similar interests in regard to highway location and traffic patterns. Furthermore, these interests parallel those found in the earlier studies of Faribault, Hinckley, Austin and Fergus Falls. Specifically, the interests to be served by alternate routes in all of those communities include:

*Depen-
dence on
through
traffic*

1. The local merchants who derive a large percentage of their trade directly from through traffic and favor keeping the through traffic in the Central Business District (CBD) despite the congestion or tie-up. A survey undertaken by the Highway Research Group at the University of Minnesota in 1958 prior to research on a 1959 report found that 96% of the businessmen interviewed in Faribault were not in favor of the alternate route although when they traveled they preferred not to go through the

small towns. Gasoline stations, motels, and some restaurants are good examples of this type of business.

2. At the other extreme is a group of merchants who receive most of their business from local residents and very little from the through traffic. They are very much in favor of rerouting the through traffic in order to relieve congestion and acquire a better shopping atmosphere for their trade. Automobile dealers, builders, and hardware stores are prime examples of this group.

Depen-
dence on
local
traffic

3. There are also businessmen who fit in between the two extremes. They weigh the benefits of the rerouted traffic to the community and to themselves. They may and usually do see value in either alternative. An essential requirement for them is the ability to adjust to the new pattern of traffic movement. Clothing, variety, food and drug stores are excellent examples of this type of business.

Some
mer-
chants
adjust

4. The local residents who are not in business favor removing through traffic from the business district to reduce congestion and improve safety conditions.

Residents
favor
bypass

5. The local motorists also favor the removal of through traffic to speed local traffic and improve safety.

6. The through traffic motorists are usually very much in favor of an alternate route. They wish to avoid the CBD with its many stop signs and traffic restrictions. Modern day motorists dislike slowing to 30 mph or less just to traverse a small community, especially when these urbanized areas come every seven or eight miles. The freeway concept involves entire elimination of any stopping or slowing of traffic on the principal travel lanes.

Through
motor-
ists wish
to avoid
conges-
tion

7. Businesses transporting goods from the main centers of population have an interest somewhat similar to that of the traveling motorist.

Truckers
favor
bypass







LUVERNE



Figure 8. The I-90 - U.S. Highway 75 interchange at Luverne. Former U.S. Highway 16 runs through the community about one-half of a mile north of I-90. Luverne's retail core (CBD) is located on both sides of old Highway 16. According to the 1960 Census, Luverne's population was 4,249. Current estimates set the population of Luverne near 5,000.

CONCLUSIONS

The major findings in the study of Luverne can be summarized as follows:

1. The advent of Interstate Freeway 90 around Luverne has resulted in a 60 percent reduction of traffic on former U.S. Highway 16 east and west of the community.  *Through traffic diverted*
2. Diverting the through traffic away from old U.S. Highway 16 to I-90 has reduced congestion in the CBD considerably. Yet, total retail sales in Luverne and Rock County have not suffered a similar decline.  *Increasing trend of retail sales was not affected*
Average increase in retail sales volume in Luverne from 1964 to 1967 was almost seven percent a year, comparable to the State's average increase for the same period. The County's increase is even more impressive.
3. Traffic-sensitive firms in Luverne, those most likely to be adversely affected by the freeway bypass, recorded a 13.3 percent increase in sales in the period from 1964 to 1967.  *Traffic-sensitive sales increased*
4. Because of a freeway's superior character as a commercial transportation facility, I-90 has been a contributing factor in the industrial growth of Luverne in the 1960's. Attraction of new industries and expansion of existing industries has contributed to growth in the community through increases in employment and payrolls. Moreover, this has stimulated other sectors of economy in Luverne.  *I-90 indirectly stimulated local economy*
5. The tremendous benefits that the MID-Pak packing plant has brought to Luverne can be seen in all phases of the growing economy in the community.  *MID-Pak benefits*
6. The number of accidents at the intersection of old Highway 16 and U.S. Highway 75 in Luverne has been reduced by 50 percent since I-90 bypassed the city.  *Accidents at main intersection reduced*

BACKGROUND

*Site and
situation
charac-
teristics*

The city of Luverne, county seat of Rock County, is located in the center of a rich, diversified farming area. Contrary to its name, the topography of Rock County consists of a gently rolling prairie with rich black loam topsoil. Farming in the surrounding area consists of growing grain supplemented by raising livestock. With respect to larger centers, Luverne is 210 miles from the Twin Cities and approximately 30 miles from both Sioux Falls and Worthington.

*Agricul-
tural
trends*

Agriculture is Rock County's basic industry. While expanding, the agricultural economy has been undergoing significant changes which have affected the structures and patterns of other economic activities. This expansion has basically involved the substitution of capital for labor. As a result, fewer people are required to produce more. These mechanization and specialization trends are widespread in agricultural areas all over the country.

*County
trade and
service
function
patterns*

Rock County's trade and service functions constitute an important, but relatively small segment of the county's economic base. Most of these functions are extremely sensitive to changes in the agricultural economy. A declining farm population has prompted major adjustments in the structure and patterns of trade and service activities in Rock County. The growth potential of trade and service functions has also been affected by the increased mobility of the population together with the consumer's desire to "shop" for required goods and services. Competition is very keen. People shop around, not only for the best buy, but also for quality merchandise and the atmosphere in which one feels that his patronage is appreciated.

TRANSPORTATION FACILITIES AND CHANGING TRAFFIC PATTERNS

Historically, Luverne has been the crossroads for two major U.S. Trunk Highways - Nos. 16 and 75. It is also served by two railroads: The Chicago and North Western and the Rock Island. These highway and railroad facilities were instrumental in Luverne's past economic growth. Also, an airport was built south of the city in 1962.

Existing
transportation
facilities

Recently, this transportation network has been augmented by Interstate Freeway 90, a four-lane controlled access roadway extending from Boston, Massachusetts to Seattle, Washington. The freeway is located one-half mile south of, and parallel to former U.S. Highway 16, the main street of Luverne. The city is linked to I-90 by a diamond interchange where U.S. Highway 75 passes over the freeway. Interstate Freeway 90 is the major east-west traffic route through Rock County. In addition to carrying much of the through traffic formerly on old U.S. Highway 16, I-90 also draws long-distance traffic from other parallel routes. Thus, while removing through traffic from Luverne's main street, I-90 brings more vehicles in close proximity to the city. The effects of this change of traffic pattern on Luverne and Rock County are the subject of analysis in this section of the report.

I-90 opened around
Luverne
in 1966

Effects of
I-90 on
local
traffic
patterns

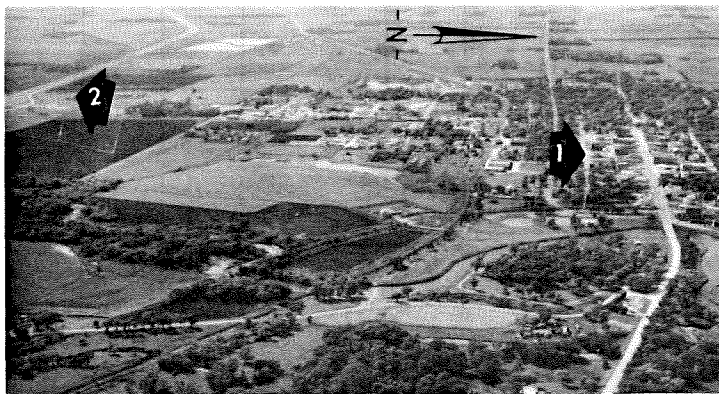
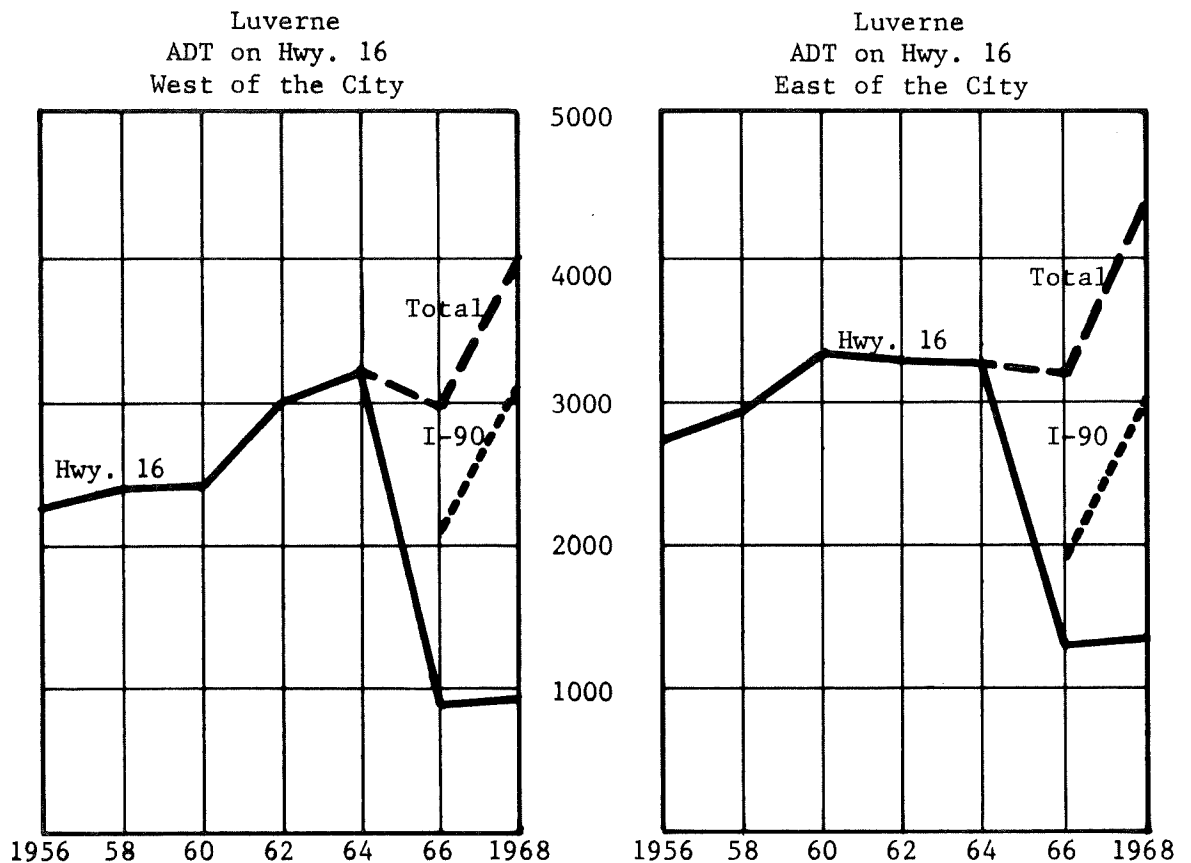


Figure 9. Aerial photograph of Luverne and former U.S. Highway 16 in relation to I-90. Arrow 1 points to the Luverne CBD with old U.S. Highway 16 bisecting it. Arrow 2 designates a portion of the freeway interchange at Luverne.

Apprehen-
sions
about I-90

Since the opening of Interstate Freeway 90, there has been a sharp decrease in the volume of traffic on former U.S. Highway 16. In the past, Highway 16 was the major traffic carrier across the southern part of Minnesota. People in cities and towns along this route witnessed thousands of cars and trucks driving through their communities every day. As I-90 construction progressed eastward from the state line, the eventual displacement of a major percentage of this traffic created many apprehensions among the people of these soon-to-be-bypassed communities. The local merchants were especially fearful of a major loss of business due to their off-center location with respect to the major traffic corridor.

Figure 10.



Source: Planning and Programming Division of the Minnesota Department of Highways, St. Paul, Minnesota.

The graphs on the previous page show that about two-thirds of the traffic on former U.S. Highway 16 east and west of the city was rerouted to I-90 in 1966. In 1968, traffic on old Highway 16 increased very little, while interstate volumes increased 50 percent over the volumes of 1966. From the experience of other bypassed communities, it is safe to assume that these traffic volume trends will continue in a similar manner in the future. With the retail core fronting former U.S. Highway 16 on both sides of the street in Luverne, it is justifiable to ask what effect the I-90 bypass has had on the patterns and volumes of retail trade in the community.

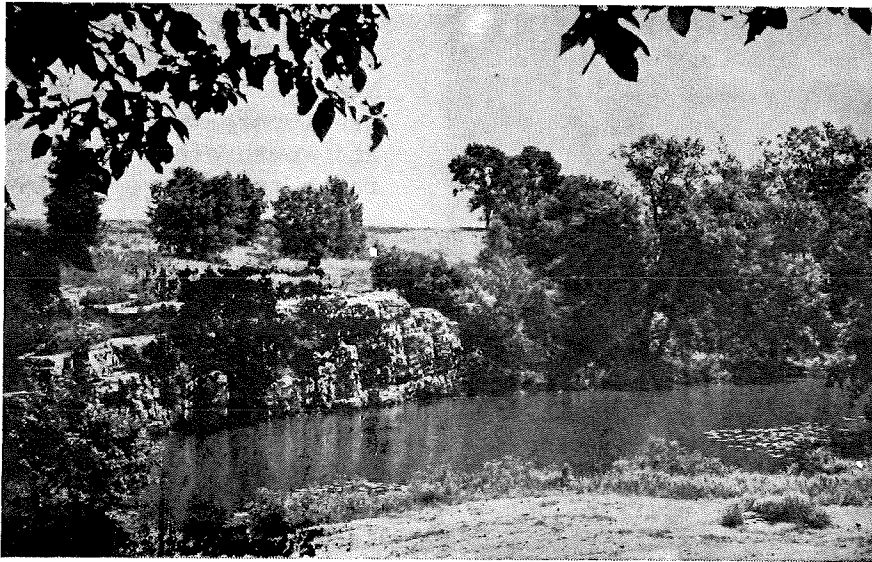


Figure 11. The major tourist attraction in Rock County is Blue Mounds State Park located four miles north of Luverne on U.S. Highway 75. This picture shows a small portion of it. The park comprises 769 acres and has facilities for camping, picnicking, hiking, fishing, and swimming. There is also an opportunity for visitors to view buffalo in their natural surroundings. Because Luverne is the only city between I-90 and Blue Mounds State Park, it receives benefits in the form of retail business from tourists who drive through the community on their way to and from the park.

RETAIL TRADE ANALYSIS

The city of Luverne has two separate, distinct retail business districts which merge at the intersection of U.S. Highways 16 and 75.

*Locational
patterns
of retail
trade* ◀

The hard core retailers, such as drug, furniture, department, and grocery stores, are located east of this intersection on Highway 16.

The traffic-sensitive businesses - gas stations, eating and drinking places, and motels are located on Highway 75, primarily south of the intersection with Highway 16. It must be noted, however, that this is a generalized conception of business location in Luverne and that there are exceptions to this locational classification.



Figure 12. Intersection of U.S. Highways 16 and 75 - facing north on Hwy. 75. Luverne's CBD is to the right on old Hwy. 16 (Main St.) Many of the traffic-sensitive firms are located at this intersection and south along Hwy. 75, the access route to and from I-90.

U.S. Highway 75 south has experienced recent growth with respect to new business location and relocation due to it being the only access route from I-90 to Luverne. In 1965, the year the freeway was completed up to Highway 75, there were only six traffic-sensitive firms and eight other retail establishments fronting the access route. In 1969, the number of traffic-sensitive firms had doubled, while the total number of retail establishments increased to twenty-four. * This represents a response to the change in traffic patterns in and around Luverne. A period of geographic adjustment of business locations is

*Increased
business
activity
on access
route* ◀

* The number of businesses in 1965 was derived from the Luverne City Directory for that year. The totals in 1969 were from actual observation - counting the number of businesses on U.S. Highway 75.

common in almost every bypassed community, and Luverne is no exception.

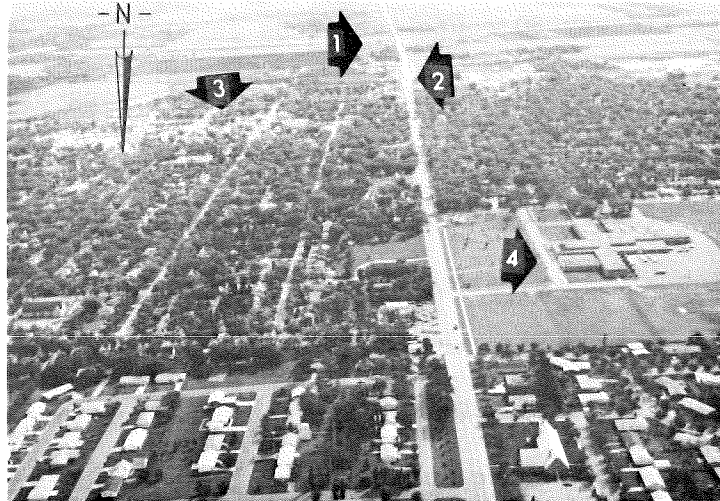


Figure 13. Aerial photograph over Hwy. 75 looking south toward the freeway (arrow 1). The traffic-sensitive businesses along the access route, and the CBD are designated by arrows 2 and 3, respectively. Luverne has long been known as the "city of trees", because of the stately elms in the residential district. Arrow 4 points to the new Luverne High School. Notice the recent residential development at the bottom of the photograph.

The retail core of the CBD on former U.S. Highway 16, even with the substantial decrease in through traffic, has changed very little since Luverne was completely bypassed in 1966. A few stores have modernized their outside and inside appearances. Many more businessmen are considering a facelifting of their store fronts. Some business ownerships have changed hands. Other minor changes have taken place, but the expected economic depression feared by many main street businessmen, as a result of the bypass, has not been realized.

Fears concerning I-90 bypass not realized

The opinions concerning the bypass expressed by the local merchants in the two business districts have been mixed. Some point out

*Mixed
opinions
about
I-90 in
its pre-
sent stage
of comple-
tion*

that I-90 across southern Minnesota is far from complete. Consequently, a large portion of cross-country traffic is using the already completed Interstate Freeway 80 route that runs parallel to I-90 through Iowa and Nebraska. As mentioned previously, however, long-distance travel today is a point-to-point type of movement with a minimum of stops along the way. Many of the local merchants, including those that have traffic-sensitive businesses, state that they never have been able to make a living from the tourist trade and are constantly attempting to build up a local area trade. Others mention the fact that I-90 makes it easier for people in the Luverne trade area to drive to Sioux Falls and shop. This is true, but I-90 also makes Luverne more accessible to people who live in other areas. For example, some Luverne merchants have customers from Sioux Falls who like to shop in a small community atmosphere.

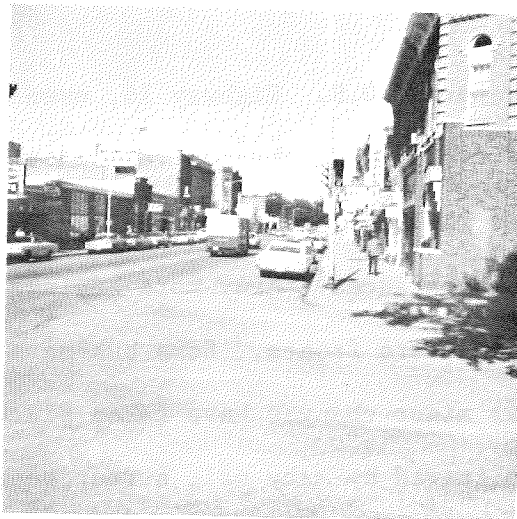


Figure 14. A view down Luverne's Main Street. Note the lack of congestion. If the present volume of vehicular traffic utilizing I-90 were shifted back to old U.S. Highway 16, Main Street in the CBD would have a severe traffic congestion problem.

A positive resultant of the freeway bypass is the reduction of traffic congestion and parking problems in the CBD. Reducing the

through traffic in Luverne has relieved congestion and created a more relaxed shopping atmosphere. This increased the attractiveness of Luverne as a trading center and led more people in the surrounding trade area to spend more time and money in the CBD. Thus, it is logical that a new route, such as I-90, which separates through traffic from local traffic and relieves congestion in the CBD, can be deemed beneficial to both local needs and interstate traffic.

I-90 serves local needs and interstate traffic

In Luverne, as in most other rural communities, the greater part of money in circulation comes from annual payrolls and farm sales. According to the U. S. Department of Commerce, the dollars placed in circulation from payrolls and farm sales are a close measure of potential retail sales in a community.

County's primary income sources

Figure 15.

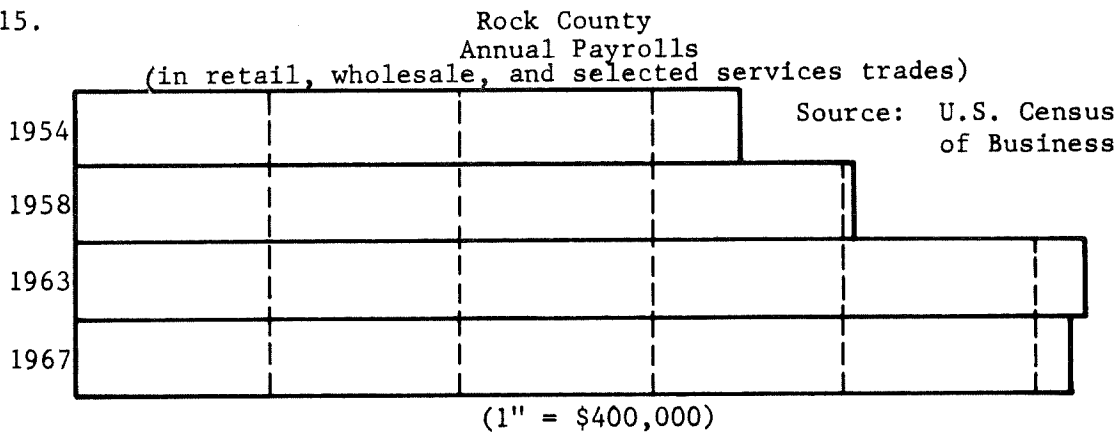
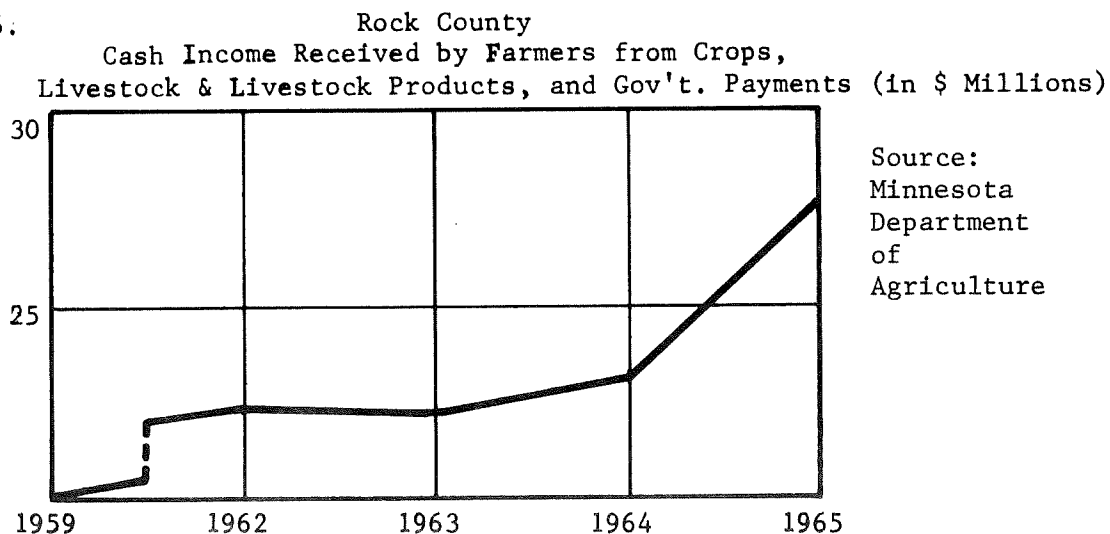


Figure 16.



Interstate Freeway 90 was extended eastward past Luverne and opened to traffic in September, 1966. Thus, 1967 was the first full year that Luverne businessmen experienced the complete bypassing of their community. That year a retail trade Census of Business was taken. It is significant that retail sales volume in 1967 exceeded the 1963 volume in the city by 27 percent and in the county by 35 percent. These percentages were both comparable to the total state retail sales increase of 32 percent for the four year period.

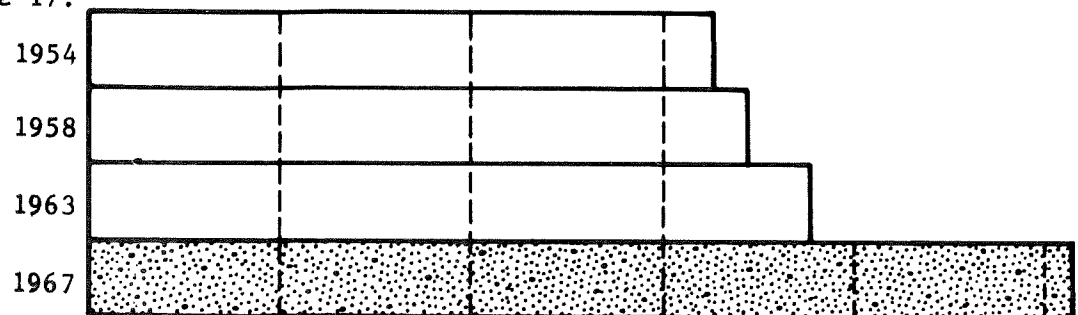
Recent
increases
in retail
sales

TOTAL RETAIL SALES



Applicable to Page 29 also

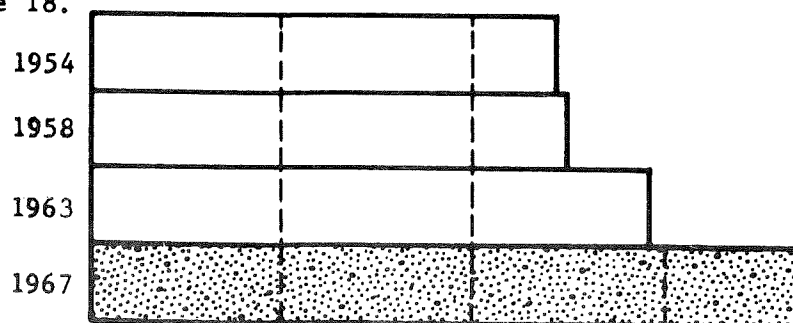
Figure 17.



Rock County (1" = \$4,000,000)

Source: U.S. Census of Business

Figure 18.



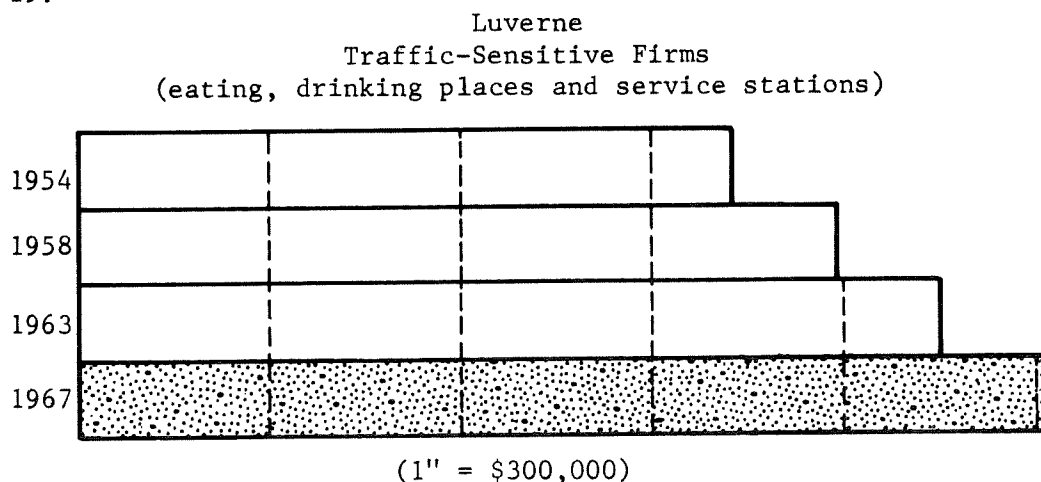
Luverne (1" = \$4,000,000)

The sales of retail goods are affected by many variables. Changing the highway location and volume of traffic are only two. However, when it is known that on a certain date most of the traffic in the CBD was rerouted and there is no corresponding drop in the trend of retail sales, it can be said that the highway change had little, if any effect on total retail sales.

Traffic-sensitive firms, dependent largely on passing traffic, usually would be affected the most by a bypass route. As this traffic is shifted away from the CBD to a parallel route outside the city, a decrease in sales volume of these firms would be expected. This was not the case on Luverne. Many of these firms, where a loss was expected, adjusted their sales emphasis by concentrating on building up a local clientele. Others balanced the loss by adding new products or improving their service.

*No decrease
in trend
of traffic-
sensitive
business
volumes*

Figure 19.

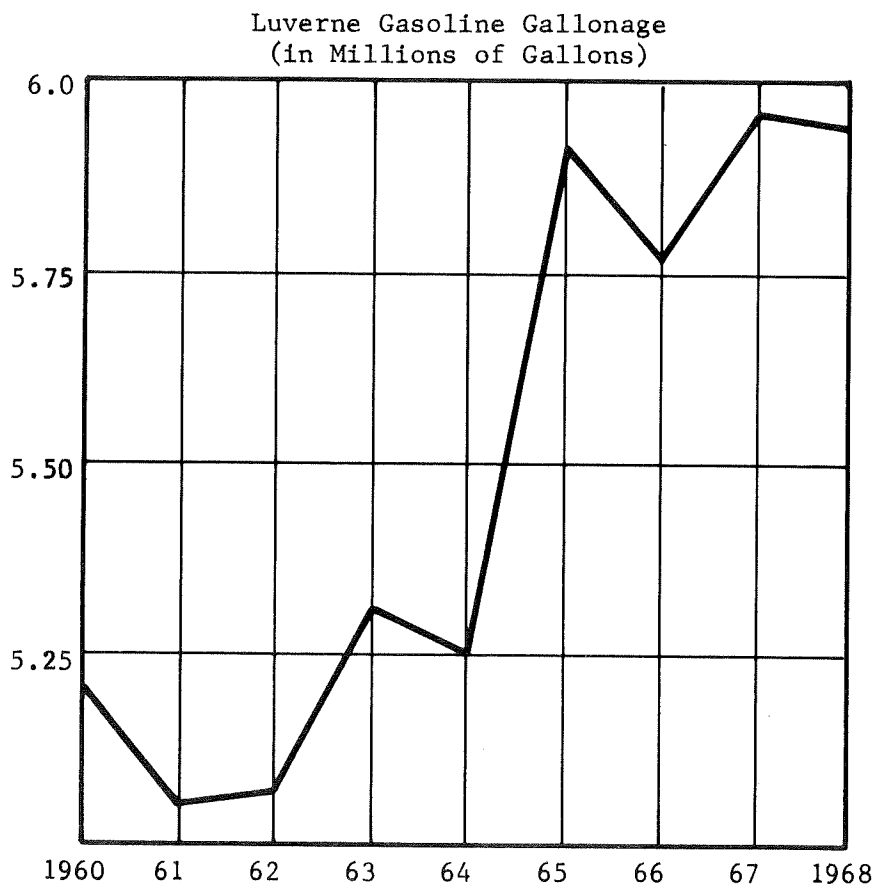


Source: U.S. Census of Business

Volume
of gas-
oline gal-
lonage
variable

The volume of gasoline gallonage pumped in Luverne was relatively static from 1960 to 1964. When I-90 was extended from near the state line to U.S. Highway 75 in 1965, the volume of gas pumped in Luverne increased sharply. At that time, all east-west highway traffic east of the Luverne interchange was routed on Trunk Highways 75 and 16, through the city's business districts. The slight drop in 1966 may have been a result of the opening of I-90 eastward to Magnolia, near the east county line of Rock County. However, a local official reported that it was more likely that the variability of volumes in 1966 and more recently was probably related to recurrent gasoline price wars in the area and in surrounding counties.

Figure 20.



Source: Northwest Petroleum Association, Mpls., Minn.

INDUSTRIAL DEVELOPMENT

The superior character of the freeway as a commercial transportation facility is another obvious benefit for Luverne. As mentioned previously, many industries seek out locations in close proximity to superior transportation facilities. Speed and safety in transporting goods to and from major markets are of prime importance for these industries. Equally important factors in determining a location for a particular industry are the availability and quality of labor, location with respect to major markets, and confidence in the future of the community.

► *Interstate
System and
industry*

Industries locating in outstate communities usually locate branch plants there. The firms are prompted to do this because of a lack of expansion space in their metropolitan locations. Industries considering relocation are also attracted by lower land and labor costs in these rural communities. Improved highway and freeway routes have been one of the major causes of this decentralization of industry. Locations at or near the major markets are not essential for many industrial plants today.

► *Locational
factors
for
industry*

In the last decade, new industries in Luverne have provided a big stimulus to the local economy. MID-Packing Company supplied the major boost when it located in Luverne in 1962. In 1966, Iowa Beef Packers, one of the five largest operations of its kind in the country, bought out MID-Packing Company. In Luverne, the plant now goes by the name of MID-Pak, Division of Iowa Beef Packers (IBP). The firm employs 135 people and deals primarily in the processing of cattle to produce top grades of beef.

► *MID-Pak
comes to
Luverne*

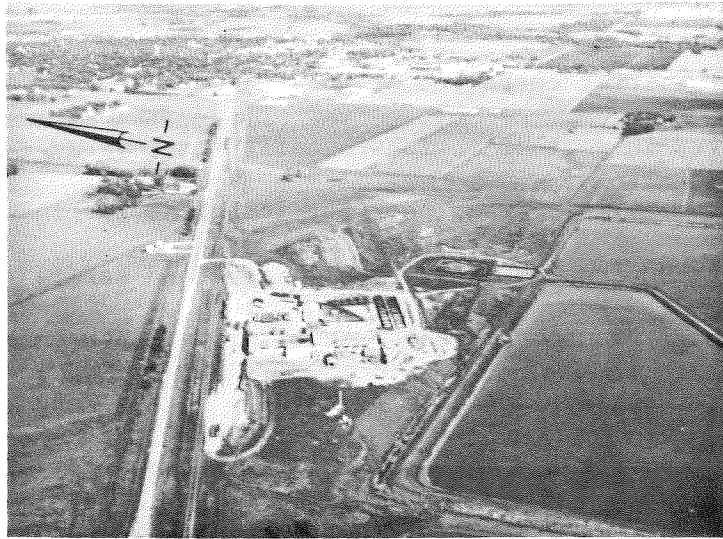


Figure 21. MID-Pak plant located southwest of Luverne on former U.S. Highway 16. The plant also has rail access to the Chicago and North Western Railway running parallel to the highway. I-90 is located beyond the limits of this photo, approximately one-fourth of a mile south of old Highway 16.

*Luverne's
establish-
ed indus-
tries*

The addition of MID-Pak to seven other established industries in Luverne, forms what is called by the local residents, the "Big Eight Industry Group". While most are oriented to the agricultural resources of the area, these industries have enabled Luverne to become more than just a farm trade center. Luverne's "Big Eight" industries employ almost 600 people and contribute well over \$2,000,000 annually to the local economy through pay envelopes. In addition, several smaller industries are doing their share in providing a stable economic climate in Luverne. The major manufacturers in Luverne are listed on the following page. Also included are the products they produce, the number of employees, and the year the firm was established in Luverne.

	Employees	Year Founded
A. R. Wood Mfg. Co. - farm equipment	140	1939
MID-Pak Co. - beef processing	135	1962
Hanson Silo Co. - concrete silo staves	120	1948
Tri-State Coop. Milk Assoc. - milk	49	1927
Hatting Sand & Gravel - mining & mineral prod.	40	1942
Luverne Truck Equip., Inc. - bumpers	36	1961
Terrace Park Dairy - ice cream	27	1953
Luverne Fire Apparatus Co. - fire trucks	20	1892
Northern States Laboratories - animal remedies	19	1925
Frakes Water Treatment, Inc. - softeners	17	1947
LBF Mfg. Co. - garage doors	17	1965

Source: Department of Economic Development, "Luverne Community Profile", June, 1969.

The local industrial development corporation is actively engaged in attracting new industry to the area. The steady growth of Luverne has been the result of aggressive promotion and drive by its businessmen and citizens. They point with pride to the size and number of industries in Luverne, putting new life into the community by attracting retail business, other new industries, new residents, and more money.

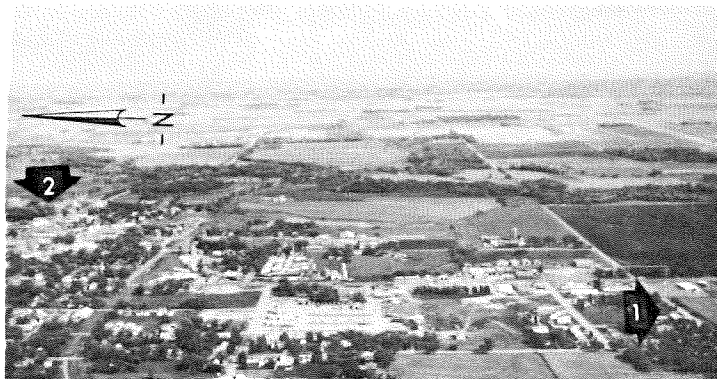


Figure 22. Primary industrial area in Luverne. U.S. Highway 75 bisects the industrial area. Arrow 1, positioned near the highway, indicates the direction to the freeway interchange. Arrow 2 points out a portion of the CBD.

Outside of the seven-county metropolitan area, there were 215 new and expanded industries in the State of Minnesota in 1968. From a map compiled by the Industrial Division of the Department of Economic Development, it was found that 80 of these industries, or almost 40

*Good road
system
influence
on indus-
try*

percent of the total, are located on or within a five mile corridor of the interstate freeways in Minnesota. * Several more of these industries are located on or near four-lane expressways throughout the state.

In Luverne, three of the industries listed previously expanded their facilities in 1968. These expansions were a response to a lack of space generated by the increased business activity of all three industries. At the end of 1969, a St. Paul firm named Technical

*Another
new
industry*

Products, Inc. decided to establish a branch plant in Luverne. The factory will employ 30 to 40 people in the assembly of plastic canoes. Thus, industrial growth in Luverne continues. It is estimated that the 1970's will record even greater gains in terms of industrial development for Luverne.

* Industrial Development Division of the Department of Economic Development, "Minnesota: New and Expanded Industries - 1968", April 1969, p. 3.

BANK DEBITS

The bank debits graph below clearly illustrates the trend of economic growth in Luverne. From 1955 to 1961, the volume of bank debits was very stable. With the advent of MID-Pak, bank debits rose sharply in 1962 and 1963. Further increases from many sources contributing to the economic growth of Luverne were recorded up to 1966. Then IBP bought MID-Pak and transferred the deposits to its bank account in Minneapolis. This accounts for the sharp drop in the bank debit volume for Luverne in 1967.

➡ *Impact of
MID-Pak*

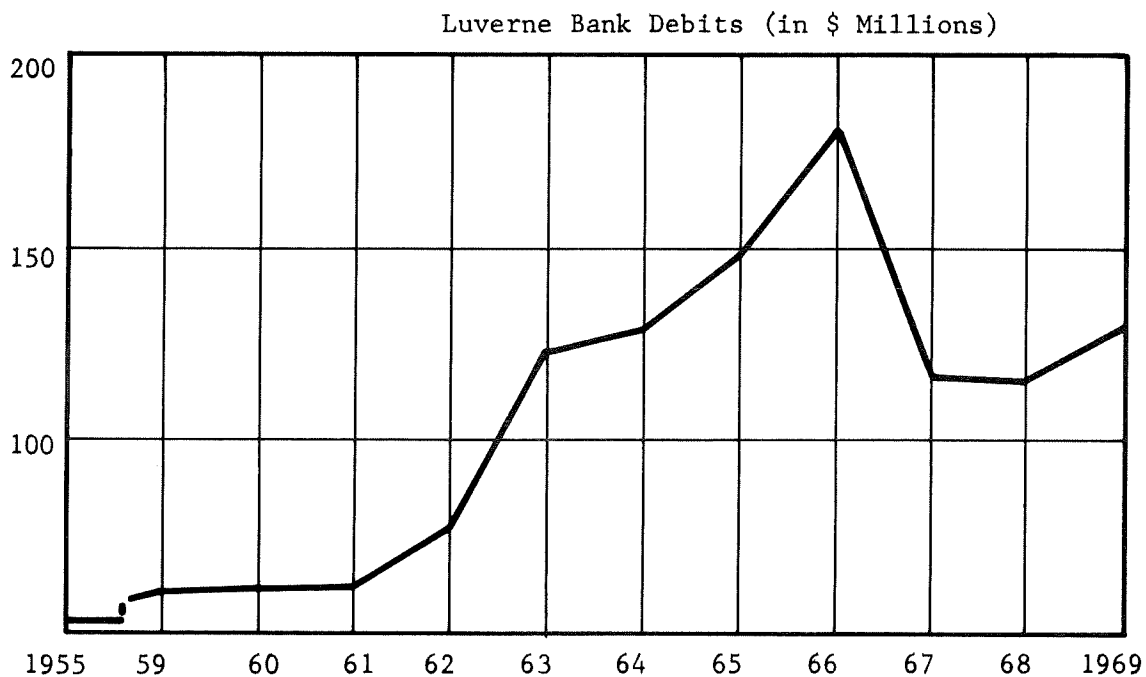


Figure 23.

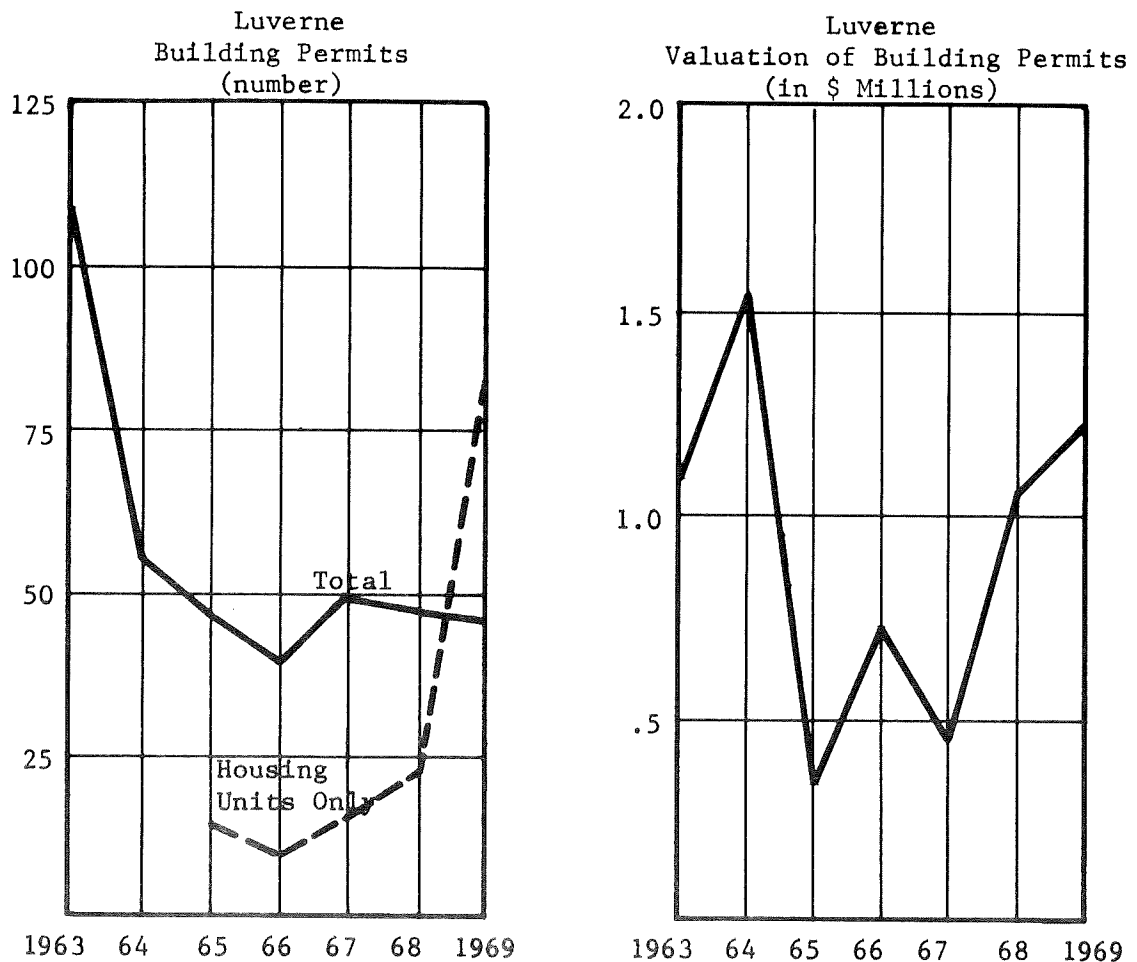
Source: Federal Reserve Bank, Minneapolis, Minnesota.

BUILDING PERMITS

The two graphs below illustrate the number and valuation of building permits in Luverne. There appears to be little relationship between the number of permits issued and the total valuation of the permits in any given year. Both were relatively high in 1963 and 1964, the economic 'boom' years after MID-Pak located in Luverne. There was a great need for new housing during this period. New housing unit construction data alone, available only since 1965, shows a recent upward trend, especially in 1969 with the construction of a 76 unit public housing project.

New
housing
construc-
tion

Figure 24.



Source: Federal Reserve Bank, Minneapolis, Minnesota.

TRAFFIC SAFETY

One important result in reducing the amount of through traffic in a city is a decrease in the number of accidents. This is clearly evident in the graph below. At the traffic-signal controlled intersection of old Highway 16 and U.S. Highway 75 (see Figure 12), traffic accidents were becoming a problem before I-90 bypassed Luverne. In 1965 and 1966, when all highway traffic in the area was channeled through this intersection, the annual accident total was relatively high. These accidents involved damage in excess of \$100. In 1967 and 1968, after Luverne was bypassed, the number of accidents per year was cut in half.

➡ *Traffic accidents reduced*

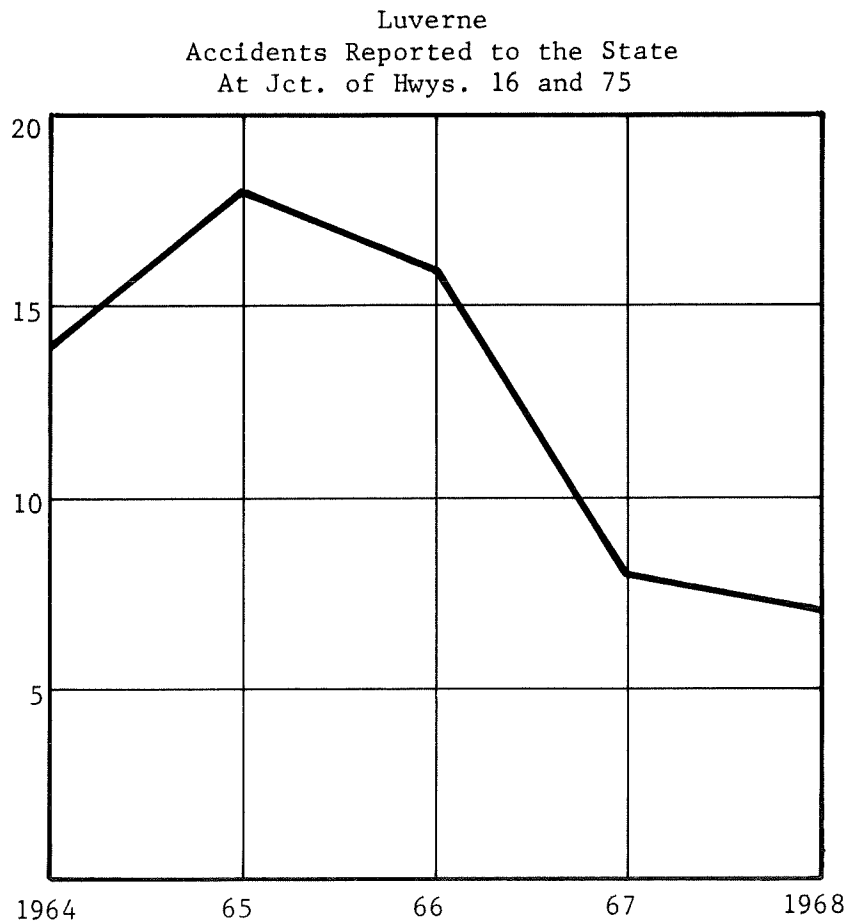


Figure 25.

Source: Luverne Police Department, Luverne, Minnesota

ADRIAN

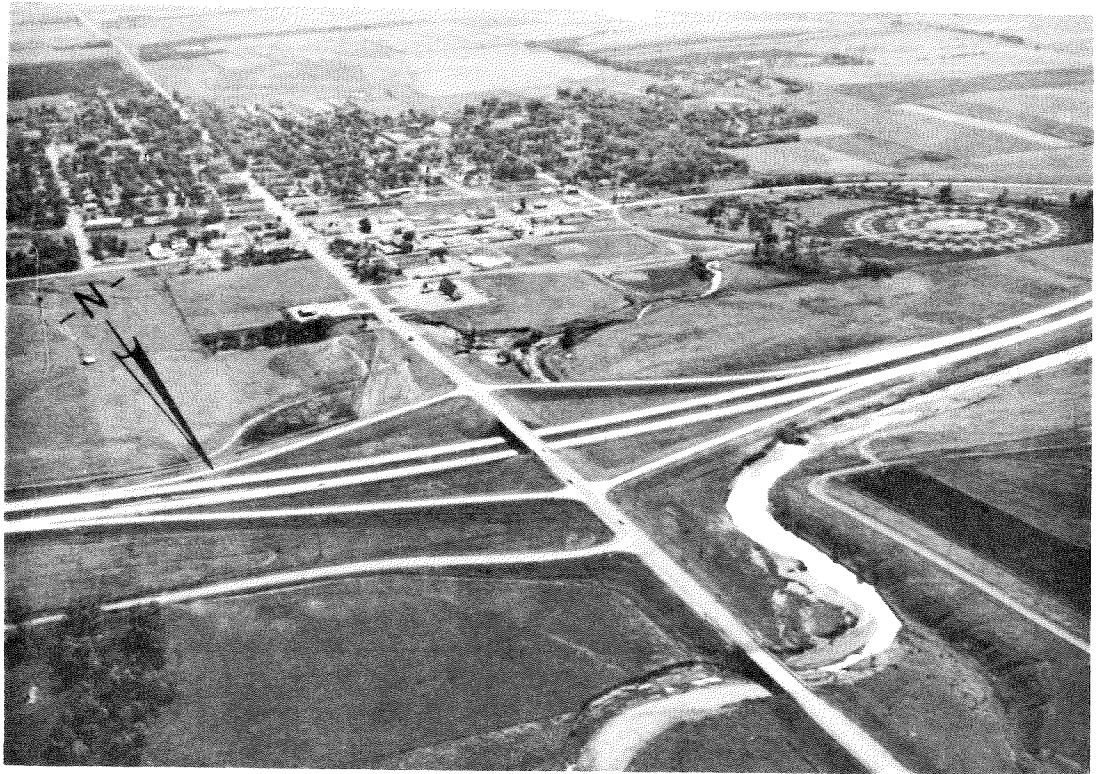









Figure 26. The I-90 - T.H. 91 interchange with Adrian in the background. The business district starts at former U.S. Highway 16, the route that runs parallel to I-90, and extends south along T.H. 91 on both sides of the street for about a quarter of a mile. Adrian, a small farm center community, had a population of 1,215 in the 1960 Census.

CONCLUSIONS

The major findings in the study of Adrian can be summarized as follows:

1. As a small farm trade center, Adrian is concerned about its future as a viable community. The advent of I-90 has given Adrian a 'shot in the arm', a chance to change with the times.  *I-90 provided potential for economic gain*
2. The community leaders are optimistic about the freeway and are attempting to orient Adrian's development so as to gain the greatest economic benefits from it.  *Freeway oriented development*
3. The town of Adrian has constructed a tourist park complex to induce travelers to come off I-90 and into the community. The townspeople hope that this attraction will draw people off I-90 to stay, recreate, and spend money in Adrian.  *New tourist park*
4. Two gas stations, a steak house, and a Nickerson Farms restaurant have recently located along T.H. 91, the access route between I-90 and Adrian.  *Other new traffic-sensitive firms*
5. Other proposed projects include a facelifting of the downtown store fronts and the possible location of a large industrial plant in Adrian.  *proposed projects*
6. Adrian's role as a residential commuting community has increased as more people are working in Luverne and Worthington. The future growth of Adrian is partially dependent on this 'dormitory suburb' function.  *'Dormitory suburb' function*
7. Increasing bank debits, new construction, high real estate activity, and a shortage of housing in Adrian are additional signs of growth and confidence in the future of the community.  *Other signs of growth*

BACKGROUND

*Recent
redistri-
bution
of popu-
lation*

As stated in the introduction to this report, business and population growth has been occurring primarily in the large urban centers since the advent of the automobile. As speed and ease of transportation increased in the transition period from the railroad to the automobile, the pattern of closely spaced settlements in the Upper Midwest, established around the turn of the century, became anachronistic. This has created many problems related to competition and survival for many small farm center communities in Minnesota. Strong competition from larger, more diversified shopping centers has become a definite threat to the future maintenance and existence of most small towns in Minnesota, because commerce is their chief function.

*Small
towns
threat-
ened*

For this reason, challenges from several sources have been issued to these small towns in the 1950's and 1960's in the form of 'Grow or Die'. This struggle for survival has been taken up by civic leaders within these small communities. In southwestern Minnesota, small communities of Rock and Nobles Counties are attempting to work together to meet the challenge. The people hope that with a united effort, their communities can continue to be pleasant places to work and live. The sketch below illustrates their feelings.

*Struggle
for
survival*

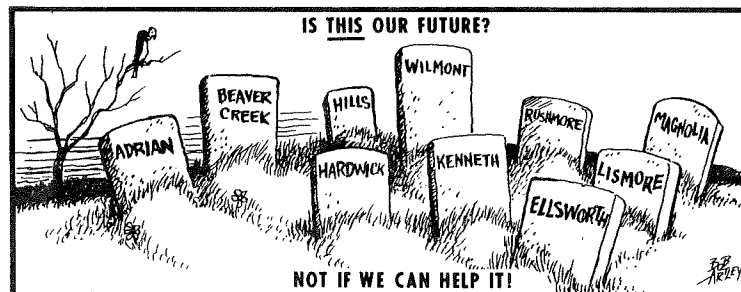


Figure 27. This drawing is from a flyer advertising a Community Development meeting of the small towns and the State Department of Economic Development in Adrian on June 13, 1968.

The town of Adrian, situated midway between Luverne and Worthington, is very concerned about its future. Its role as an agricultural trade center is declining in relation to changes in farming practices. In addition, important economic and technological changes are taking place primarily in the larger centers of the region and the nation. As outlined in a Planning Studies Report on Nobles County,

➡ *Adrian's situation*

"Key factors in a center's continued viability would include location with respect to competing centers, resident population trends, and individual and community initiative in improving merchandising, service, and quality of the environment. The importance of these factors will be at least as great in the future as in the past." *

The people who are active in Adrian are aware of this and are taking steps to enable the community to change with the times also. According to these people, one factor which has aided Adrian tremendously in this transition period is the advent of I-90, bypassing the town to the north of its corporate limits.

TRANSPORTATION FACILITIES AND THE RESULTS OF CHANGING TRAFFIC PATTERNS

Adrian, located on the Chicago and North Western railroad, received its initial growth impetus as a trade center for the surrounding farming area. The rail station and business district in Adrian depended on wagon transport and dirt roads to reach the surrounding farming

➡ *Original economic base*

* Hodne/Stageberg Partners Inc., "Planning Studies: A Basis for Comprehensive Planning for Nobles County, Minnesota", 1966, p. 32.

areas. The construction of U.S. Highway 16 in the 1930's gave Adrian its first long-distance road connection. As freedom of movement increased in the automobile era with the construction of more roads, cities with better relative locations continued to grow faster than Adrian.

Full Convenience Center in the 1960's ◀

By 1960, the hierarchy of cities in southwestern Minnesota was well established. Adrian and other small towns were intermediary convenience centers between Worthington, the regional center in the area, and secondary centers like Luverne. The town was also assuming the function of a 'dormitory suburb' for the neighboring larger cities. Adrian had a population of 1,215 in 1960, a growth of 100 people over the 1950 Census. Yet, Adrian, like so many other small towns in the area, was in the doldrums. The agricultural population was declining.

Economic activity static ◀

Adrian needed a supplement to its farm-based economy in order to survive. Interstate Freeway 90 has insured Adrian's survival, while providing the town with an opportunity to grow. In fact, Adrian's population for 1970 is estimated at 1,500.*

The business district of Adrian is located on State Trunk Highway 91, south of former U.S. Highway 16. Thus, the through traffic traveling on old Highway 16 was not routed through Adrian's business district on the main street, as was the case in Luverne.

* The estimate is from the Department of Economic Development, "Adrian Community Profile", June, 1969.



Figure 28. Urban development along former U.S. Highway 16 and T.H. 91 south of I-90. Adrian's farm-oriented manufacturers and suppliers are located in this area. Gas station sites occupy all four corners of the intersection of old Highway 16 and T.H. 91. New traffic-sensitive businesses are located on the access route (T.H. 91) between I-90 and this intersection.

Interstate Freeway 90 was completed from Magnolia eastward to State Highway 91 in November, 1967. For one year, vehicles west of Adrian traveled primarily on I-90, while east of Adrian all vehicles traveled on former U.S. Highway 16. During this time, the 1968 traffic counts were taken and they are illustrated in the graphs on the following page along with earlier years. Notice how the traffic volumes generally declined up to 1964. Then in 1966, traffic volumes increased sharply both east and west of the city. Construction on I-90 was complete from Luverne westward into South Dakota at that time. It could be assumed that the increase on old Highway 16 was a result of traffic being diverted off parallel routes to travel on the Interstate Freeway. The 1968 traffic volume west of the city, showing a similar

➡ *Changing
traffic
patterns*

➡ *Explana-
tions of
traffic
volume
trends*

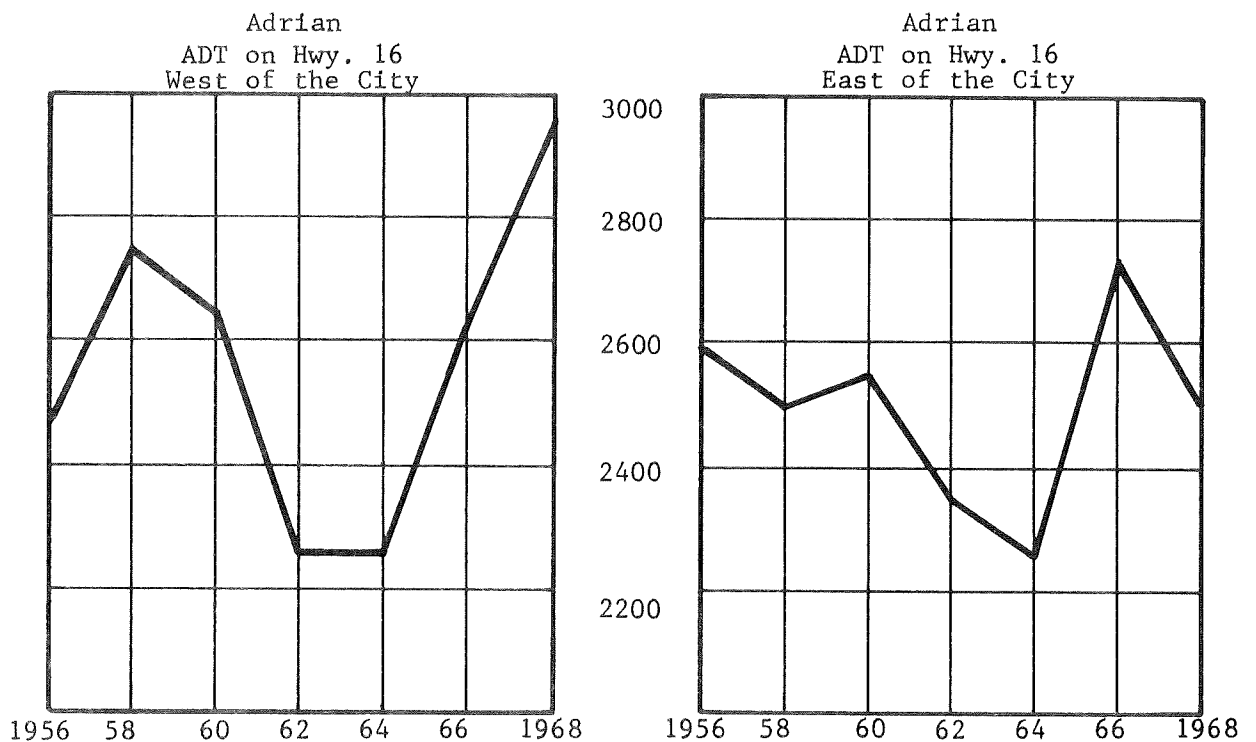
increase, was recorded on the recently completed stretch of I-90 up to Highway 91. East of Adrian on old Highway 16, a drop in the traffic volume was recorded. Yet, traffic volumes on Highway 91 showed little difference from 1966. Also, through traffic volumes would be the same both east and west of the city. Thus, differences in traffic volumes in 1968, as illustrated by the trend lines on the graphs, must be

I-90 increased interaction



related to the fact that interaction in the form of business, shopping, and pleasure travel was greater on the four-lane freeway between Adrian and points west, and less on old Highway 16 to the east. In addition, the attraction of the major wholesale-retail center of Sioux Falls, South Dakota, approximately 45 miles away, is a definite factor in the higher traffic volumes west of Adrian.

Figure 29



Source: Planning and Programming Division of the Minnesota Department of Highways, St. Paul, Minnesota.

Ease of travel is a major factor determining the frequency and distance of trips that people make. Now that I-90 is completed to State Trunk Highway 60 in Worthington, it can be assumed that the 1970 traffic volumes will show substantial increases both east and west of Adrian. In 1975, when intra-regional traffic increases on I-90, and additional long-distance traffic is drawn off other parallel routes, traffic volumes are expected to be more than twice as great as the 1968 counts for the stretch of freeway around Adrian. *

*Predicted
traffic
increase
on I-90*

This somewhat lengthy discussion on traffic volumes is necessary to explain recent developments in Adrian related to the freeway. Statements by several of the businessmen, recorded when Adrian was completely bypassed in the summer of 1969, reflect a new optimism about the freeway and the future of Adrian.

"Being located on the freeway is just as important as being on the railroad 50 to 100 years ago."

"I-90 gave this town a shot in the arm."

"Being on the interstate is a savior."

"The freeway has brought in new businesses, which means more employment and larger payrolls, helping the whole area."

"Business has been picking up."

"The Interstate hasn't hurt us at all, that's for sure".

Not everyone in Adrian feels this way, but the community leaders' general point of view is that, 'the freeway is here; it's progress, and it's up to the town to take advantage of it.'

*Opinions
about I-90
in 1969*

*Attitude
of commun-
ity leaders*

* The estimated ADT on I-90 around Adrian in 1975 is 6,588 vehicles. This estimate is from the Planning and Programming Division of the Minnesota Department of Highways.

*New
tourist
park
complex*



The major project designed to draw people off the freeway and into Adrian is a tourist park complex. It was recently completed and will be open for the first time in the summer of 1970. The complex comprises a 50 acre area containing a 100 unit campsite with a service facility building, a park, a playground, a picnic area, and a municipal swimming pool with a bathhouse. The project was headed by Adrian Park and Recreation Inc. The businessmen and residents in Adrian supporting the project feel that the tourists utilizing the park will spend money in the business district on such things as automobile supplies, gasoline, food, clothing, and other retail goods. It is generally accepted throughout the State that retail trade adds to the economy only when it attracts dollars from outside the community; otherwise retailing is merely a redistribution of agricultural or manufacturing revenues already earned.

*Park
prompted
by I-90*



Thus, increasing the accessibility of Adrian via I-90, to the larger population centers means a growing economy through the tourist industry, especially with the addition of the tourist park.



Figure 30. Tourist park complex at the northwest edge of Adrian. The three highways surrounding the park provide it with excellent advertising and access.

Adrian enjoys a unique advantage in regard to the location of the freeway bypass around the town. Approaching from either the east or the west, there is an excellent view of Adrian straight ahead. Then the freeway curves northward to bypass the developed area of Adrian.

► *I-90 in
relation
to Adrian*

At the top of the curve there is an interchange at State Trunk Highway 91, a two-lane, north-south highway.

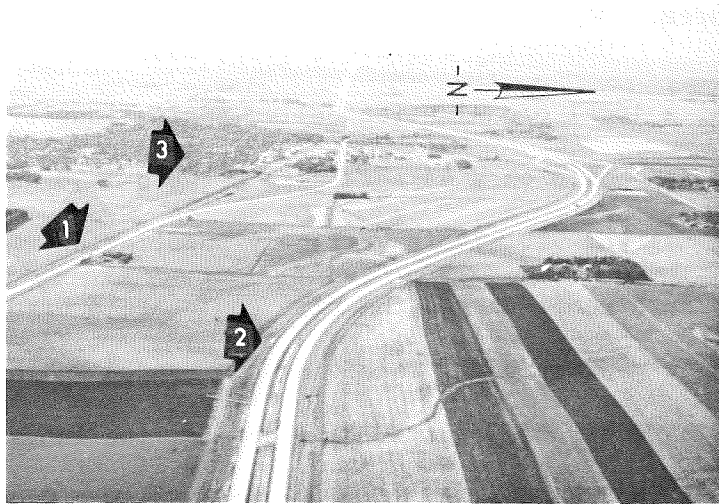


Figure 31. The location of I-90 bypassing Adrian on the north side of town. This photograph clearly illustrates the relationship between old U.S. Highway 16 (arrow 1) and I-90 (arrow 2) in the Adrian area. Adrian's retail businesses are located along T.H. 91 in the CBD, designated by arrow 3, and northward to the freeway interchange.

Midway between the interchange and old U.S. Highway 16 are two new business establishments; a Skelly gas station-Nickerson Farms restaurant complex, and a Standard Oil service station. Both establishments opened for business in the fall of 1968. There is also a new steak house in this area. These businesses are additional "drawing cards" for Adrian. For example, many of the people who stop to eat at Nickerson's restaurant also go into town to spend money in the business district.

► *New
traffic-
sensitive
firms*

There are three industries located in Adrian at the present time. They are listed below along with the products produced and the number of people employed.

<i>Adrian's industries</i> ◀		<u>Employees</u>
	Safeway Company - egg processing	65
	Sailor Equipment Company - plastics	12
	Adrian Concrete Products, Inc. - block & tile	10

Source: Department of Economic Development, "Adrian Community Profile", June, 1969

New industrial prospect ◀ In addition, a local organization called Adrian Industrial Development, Inc., holds an option on a 43 acre site between I-90 and old U.S. Highway 16, east of Highway 91. It is currently negotiating with a large industry in an attempt to get the firm to locate a branch plant in Adrian. The organization is receiving assistance in this effort from the State Department of Economic Development, the Industrial Development Department of the Chicago and North Western Railway Company, and other local industrial corporations in the area.

Facelift-ing project ◀ On the main street, a grass roots effort has been started to renovate store fronts of the retail businesses. A few store managers have already completed renovation. Those promoting the project hope it will catch on with the other businesses in town. They feel that the more attractive and affable the atmosphere of the business district is, the more often people in the area will come to shop in Adrian.



Figure 32. The main street in Adrian, T.H. 91, looking north toward the freeway.

A banker in Adrian reported that real estate activity, especially in residential land, is quite high. He also said that there is a shortage of housing in the town due to financing problems, because the market is tight at the present time. He estimated that Adrian has lost a few prospective residents because of the housing shortage.

▶ *Adrian's
residential
situation*

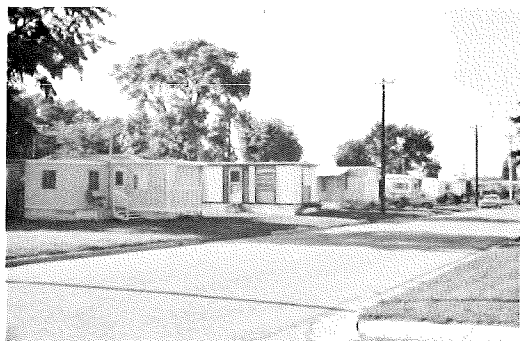


Figure 33. A mobile home development. This photograph illustrates the shortage of permanent housing in Adrian.

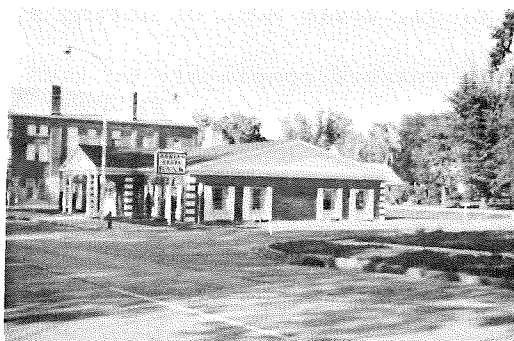


Figure 34. Besides the new bank, construction in recent years includes a high school and a nursing home. These projects reflect confidence in the future of Adrian.

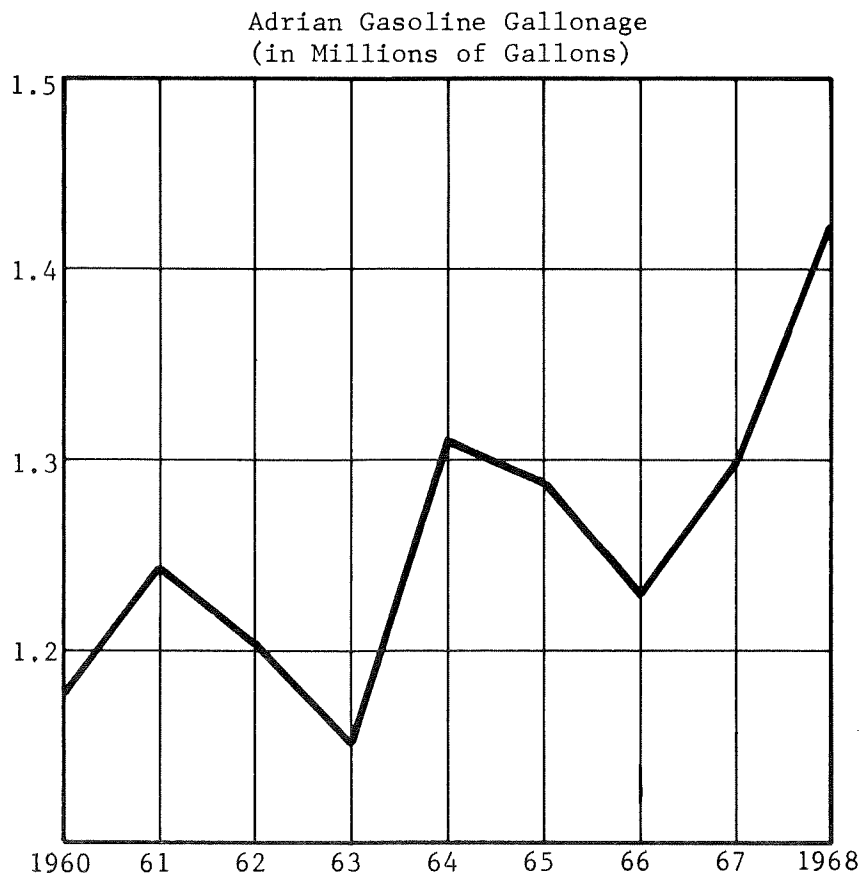
The future growth of Adrian is partly dependent upon its role as a residential commuting community as more people are working in Luverne and Worthington. For example, approximately 20 to 25 people employed by MID-Pak and Armour packing plants, located in Luverne and Worthington respectively, live with their families in Adrian. This 'dormitory suburb' function is expected to increase now that I-90 has been completed both east and west of Adrian, making daily commuting fast and easy.

▶ *Growth
through
'dormitory
suburb'
function*

Gallons
rising
recently

The graph showing gallons of gas pumped in Adrian indicates no clear-cut trend in past years. Recent increases in 1967 and 1968 could be explained by the heavier traffic volumes due to the freeway being completed to the west of Adrian. East-west through traffic in these years was routed along former U.S. Highway 16 to the intersection with T.H. 91, where most of Adrian's gas stations are located. Adrian was not bypassed completely by I-90 until the end of 1968. However, the volume of gasoline gallonage for 1969 in Adrian was not available at the time this report was published.

Figure 35.



Source: Northwest Petroleum Association, Mpls., Minn.

Interviews with managers of the already existing traffic-sensitive firms in Adrian in 1969 revealed that the freeway bypass has imposed some adverse effects on them. At the intersection of former U.S. Highway 16 and T.H. 91 there are gas stations on every corner. One of the stations is closed, and the managers of the other three claim that their gallonage totals are down as a result of the freeway bypass, although there are no statistics available to substantiate these claims. The managers of the cafes in Adrian say that their business has suffered too, due to the bypass. It is likely that this loss in business by the established cafes and gas stations was gained by the new businesses located close to I-90.

Reported
adverse
effects
of I-90



Figure 36. Vacant service station at the intersection of old U.S. Highway 16 and T.H. 91.

When there is a change in traffic patterns within a town, a period of transition is always involved. Some individual establishments inevitably will suffer, at least temporarily, or possibly even go out of business unless adjustments are made. It must be remembered, however, that the economic base of a town is not built on gas stations and cafes alone. In the case of Adrian, the economic benefits of I-90 far outweigh its detriments.

Transi-
tion per-
iod for
traffic-
sensitive
firms

BANK DEBITS

*Recent
healthy
increases
in bank
debits*

The graph of bank debits for Adrian shows no startling increases or decreases in past years. In recent years, however, the trend of bank debits has increased sharply. The volume for 1969 is the highest ever recorded in Adrian. A bank official reported that the major cause for bank debits rising was that prices of hogs and cattle have been higher. He also mentioned that the growth of the commercial and industrial economy of Adrian since 1965 has been more rapid than in previous years.

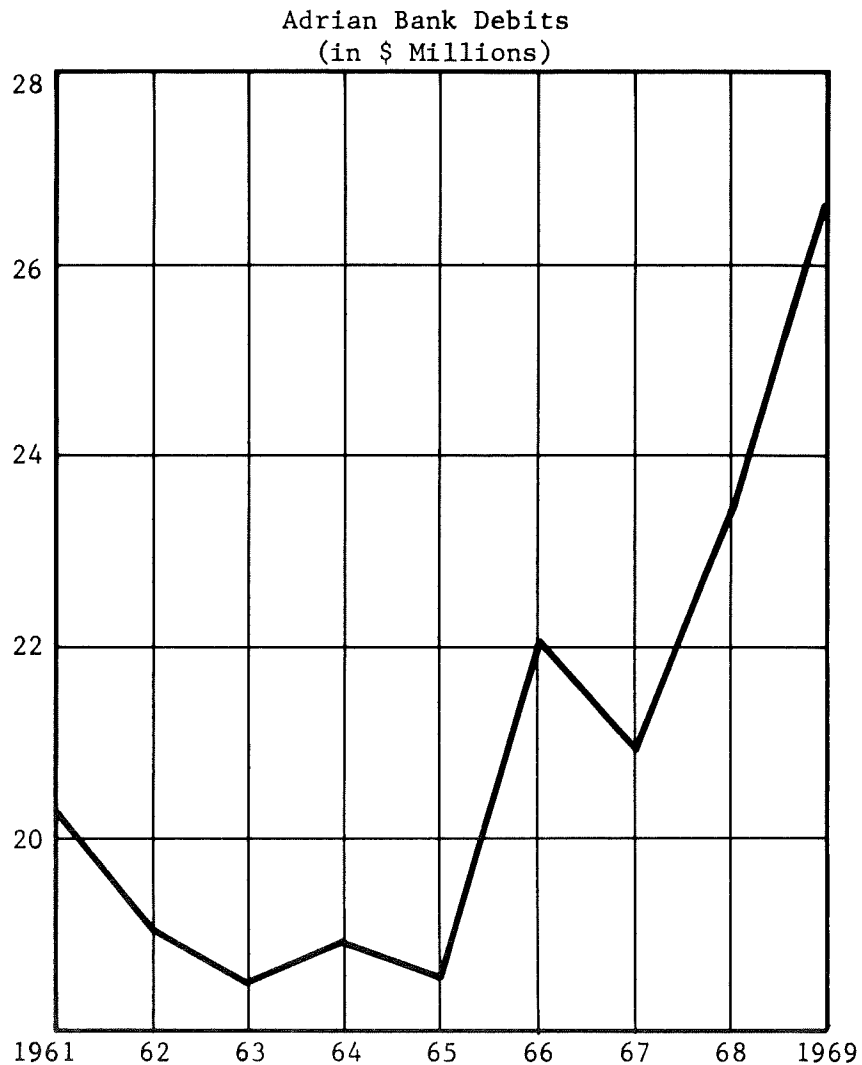


Figure 37.

Source: Federal Reserve Bank, Minneapolis, Minnesota

BUILDING PERMITS

Because Adrian is a small community, only a few building permits are issued annually. The relatively higher residential totals from 1965 to 1967 reflect the trend toward an increasing 'dormitory suburb' function in Adrian. The lower totals of permits in 1968 are related to financing problems. Otherwise the graph of residential and commercial permits shows no clear-cut trends in recent years. This is normal for Adrian and towns of comparable size.

*'Dormitory
suburb'
function
reflected
in trend*

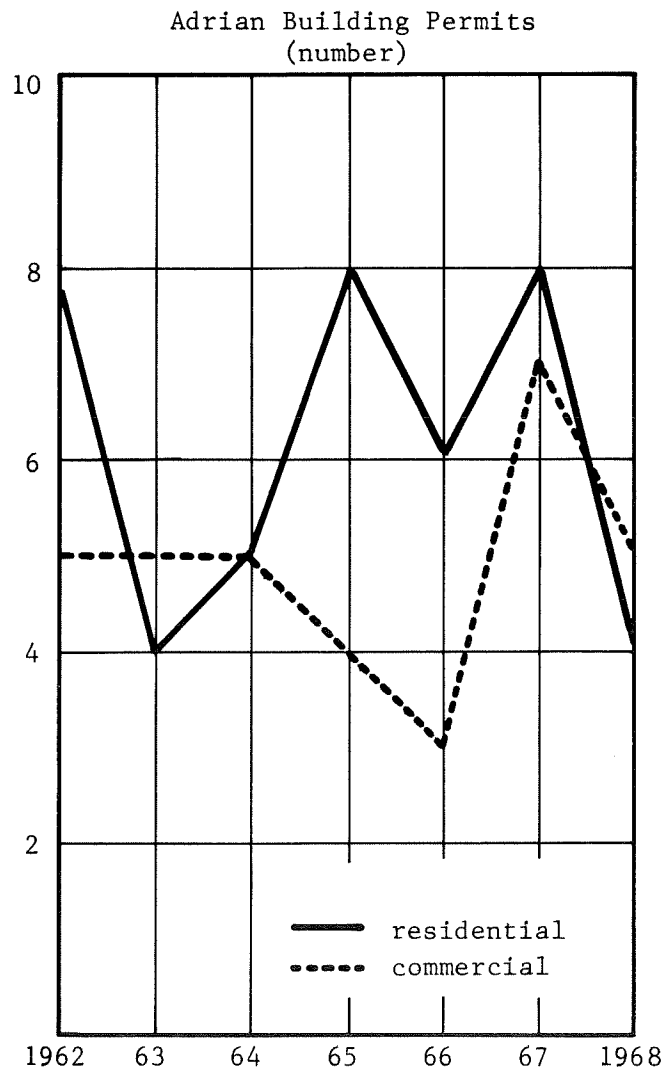


Figure 38.

Source: Village Clerk, Adrian, Minnesota

WORTHINGTON

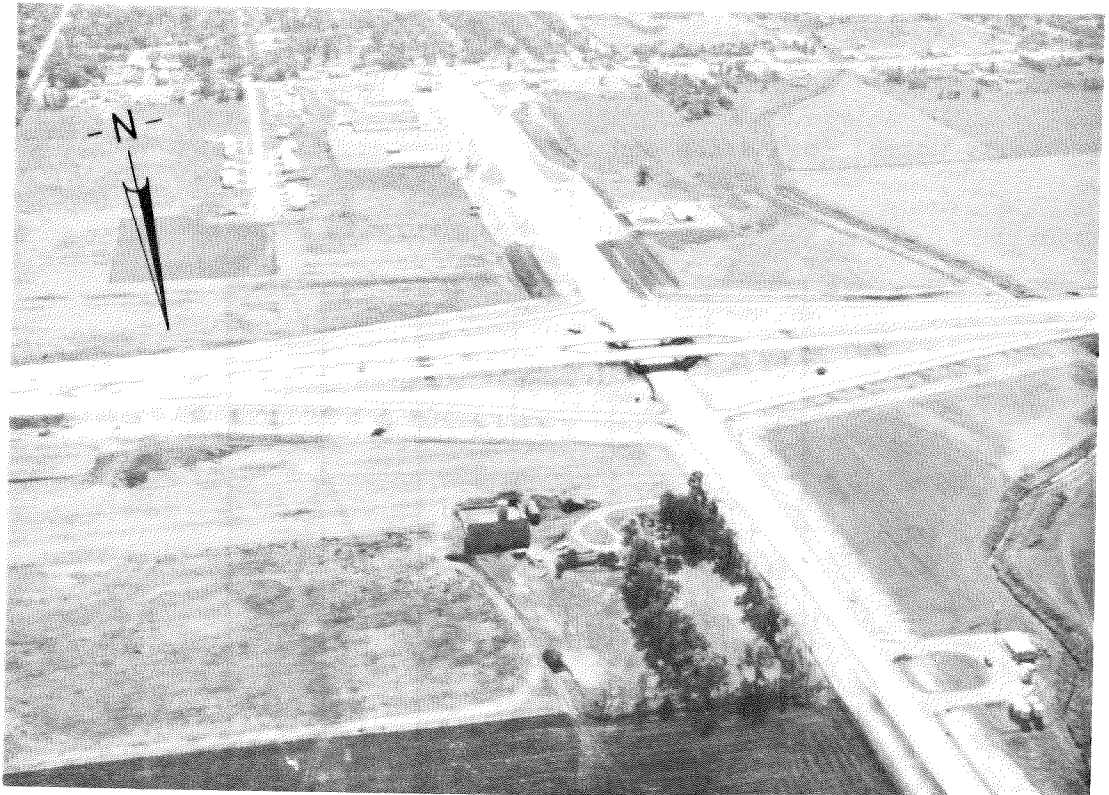


Figure 39. I-90 - U.S. Highway 59 interchange at Worthington. Although T.H. 59 is the primary access route to and from I-90, Worthington has also been provided with two other access points: a folded diamond interchange at T.H. 60, and a partial interchange at T.H. 266. In the Worthington area, I-90 has replaced former U.S. Highway 16 and Oxford Street, the four-lane route at the top of the photograph, as the major east-west highway traffic carrier.

CONCLUSIONS

The major findings in the study of Worthington can be summarized as follows:

1. At the time the research was conducted for this report, Worthington had not yet been bypassed by Interstate Freeway 90. Thus, the analysis is focused on the development of Worthington in the 1960's, in anticipation of I-90 eventually bypassing the community. *Pre-bypass study of Worthington*
2. Since 1930, Worthington has been the fastest growing city in southwestern Minnesota. It has risen to the status of a regional center. Its estimated population for 1970 is 10,500. *Fast growing regional center*
3. The city of Worthington was first bypassed in 1947 by Trunk Highways 16, 59, and 60, each with limited access control. Thus the downtown merchants were not overly concerned about the effects of the I-90 bypass. Experience had taught them that bypass routes which eliminate through traffic in a heavily traveled business district are beneficial to local merchants, city residents, local area shoppers, and the through travelers. *Experience with bypasses in the past was beneficial*
4. Several organizations have been active in planning the future development of the community in anticipation of the proposed freeway and expressway to broaden and strengthen Worthington's economic base. A number of projects have been proposed or are already under way which will more adequately orient Worthington to these new superior transportation facilities. *Citizen activity in freeway oriented development*
5. The attraction of industry to the city has resulted in an economic 'boom' in Worthington during the 1960's. The expectation of excellent transportation routes (I-90 and the four-lane expressway, T.H.

*Industrial
growth
benefitted
by I-90
and T.H. 60*

60) has been a definite consideration in the decisions of many industrial firms to locate in Worthington. The employment opportunities offered by the new industrial plants are great stimuli for the local economy. Armour & Company and Star Mobile Homes are prime examples of this phenomenon in Worthington.

*Retail
trade
increasing*

6. City and county retail trade business has recorded healthy increases in the years before the advent of I-90. Worthington has also been increasing its dominance as the primary retail trade center in Nobles County.

*Varying
opinions
and trends
from traf-
fic sens-
itive
firms*

7. The managers of traffic-sensitive firms in Worthington had mixed feelings about the anticipated impact of the I-90 bypass, depending on the location, physical condition, and solvency of the individual business establishment.

*Land val-
ues in I-90
corridor
'skyroc-
keting'*

8. Land values in the existing commercial districts in Worthington show no change in recent years. Yet, land in the I-90 corridor north of Worthington is in great demand, and consequently, is selling for tremendous prices. Land values, especially near the freeway, are expected to more nearly reflect the increased economy of the area when the 1970 property assessments are made.

*Other
indicators
illus-
trating
direct
or
indir-
ect ben-
efits
of
I-90*

9. Due to the economic 'boom' of the 1960's in Worthington, total employment has grown at a rate of almost 200 people per year.
10. Bank debits have been increasing steadily, a solid indication of progress in the community.
11. Building construction, while relatively stable in the past, proceeded at a record-setting pace in 1969.
12. The number of traffic accidents in Worthington are expected to decrease as I-90 diverts through traffic around the city.

BACKGROUND

As the subject of a bypass study, Worthington represents a special case. At the time the field research was conducted in Worthington the city had not been bypassed, in contrast to previous studies. I-90 had been completed to T.H. 266 west of the city. The actual bypass, from T.H. 266 to T.H. 60 was not opened to traffic until October, 1969, after the field research had been completed. Thus, this study is designed to consider the actual and anticipated consequences of interstate Freeway 90 and its bypass route around Worthington in the 1960's. Actual consequences may be considered in a similar future study along I-90 between Worthington and Austin.

Research
completed
before
I-90
bypass
opened

Many people in Worthington feel that the full economic impact of the freeway bypass will not be felt until I-90 is completed across southern Minnesota and T.H. 60 is upgraded to four-lane expressway standards from Mankato to Worthington. These projects should be completed by 1975. Yet, it is important to know and understand what is happening in Worthington at the present time, in anticipation of the completion of these superior highway facilities.

Superior
highway
network
incomplete

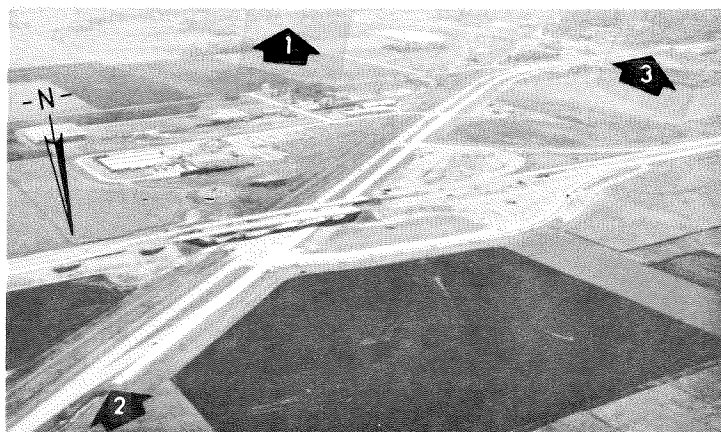


Figure 40. The folded diamond interchange at State Highway 60 and I-90. The interchange was designed this way because of the railroad tracks on the southeast side of T.H. 60. At the present time (October, 1969) I-90 terminates here and all east-west highway traffic east of Worthington is routed on U.S. Highway 16 (Arrow 1). Arrow 2 points out where T.H. 60 narrows into a two-lane highway at the present time. Arrow 3 designates a small portion of Worthington and direction to the CBD.

*Relative
location
and the
railroads*

Worthington, the county seat of Nobles County, is located 180 miles southwest of the Twin Cities and 60 miles east of Sioux Falls, South Dakota. Soon after Worthington was incorporated in 1873, two railroads were constructed through the town, presently known as the Chicago and Northwestern Railway and the Chicago, Rock Island and Pacific Railroad.



Figure 41. The Rock Island railroad running along a portion of the shore of Lake Okabena near the point of initial settlement in Worthington. This location of the railroad tracks was essential to Worthington's original growth and development, but today it detracts from the natural aesthetic quality of the lake.

*Recent
popula-
tion
growth*

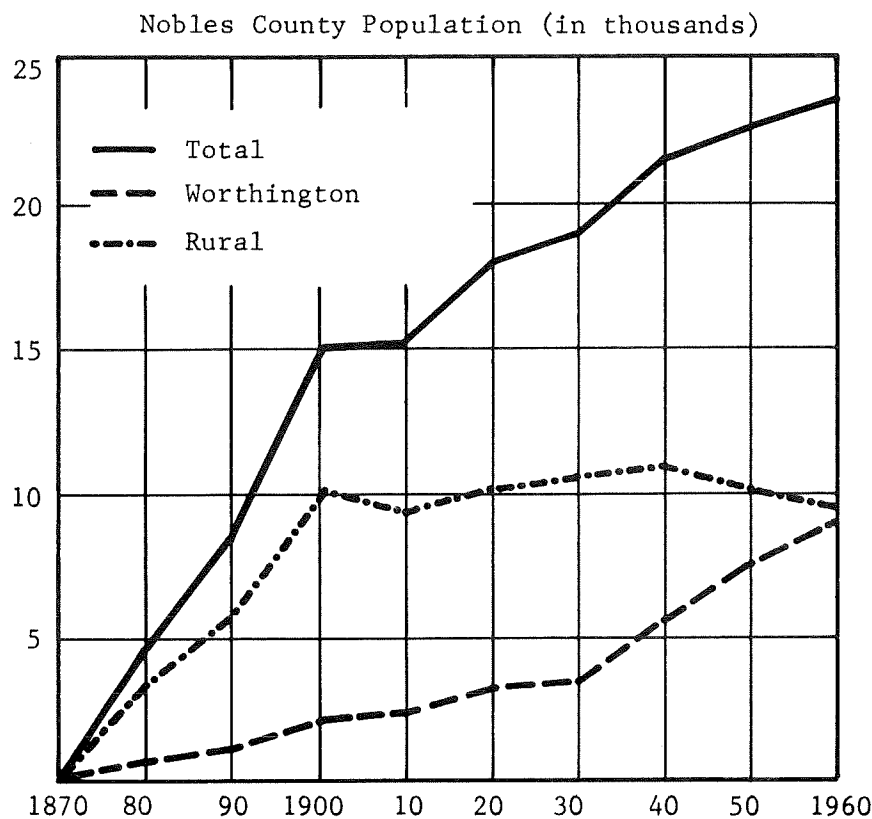
With the advent of the automobile and the subsequent construction of high quality roads and highways in the 1930's, Worthington became the major hub of activity in the area. In fact, Worthington's most impressive population growth has been recorded in the automobile era. The table below illustrates this growth:

<u>Year</u>	<u>Population</u> *
1930	3878
1940	5918
1950	7239
1960	9015
1970	10500

* The population figures are from the U.S. Census of Population. The 1970 figure is an estimate made by the Worthington Chamber of Commerce.

Worthington's population nearly doubled between 1930 and 1950. In fact, since the 1930's Worthington has accounted for all of the population growth of Nobles County, whereas rural gains had accounted for county population growth before this time.

Figure 42.




Source: U.S. Census of Population

This clearly points out the shift in emphasis from agriculture to other sectors of the economy in recent decades. This not to discount the importance of farming in the area. Nobles County is one of the most agriculturally productive counties in Minnesota in terms of product yields, and agriculture is still the major employment sector in the county's economy. Yet, it was stated in a county planning

➡ *Role of agriculture*


report that, "The economic strength and vitality of Nobles County has increased substantially in the 1960's largely as a result of industrial employment within the Worthington area". *

Of the 75 largest cities in Minnesota, Worthington ranks ninth in population growth rate from 1930 to 1960. It more than doubled in size during this period. Yet, it ranks only thirty-eighth in rate of growth from 1950 to 1960. ** It was reported by one of the business and civic leaders in Worthington that a colloquial, self-centered attitude prevailed in the community at that time. This has been trans-

*Change in
attitude* 

formed in the 1960's to an attitude of outward thinking and aggressive-
ness. The change has resulted from a significant economic boom in the community which began early in the decade. The community was shaken out of its doldrums primarily by industrial development within the Worthington area, increasing total employment by almost 40 percent since 1960.

A good illustration of this transformation is the evolution of the general attitude toward Interstate Freeway 90 during the decade. In the early 1960's, the community attitude was quite negative, prompted by a 'fear of the unknown'. An interstate freeway with its full access

*From
pessimism
to
optimism
regarding
I-90* 

control usually creates this kind of reaction. This began to change as the civic leaders in Worthington realized that it would be to the community's benefit to take advantage of the new facility. Planning

*Hodne/Stageberg Partners Inc., "Comprehensive Plan: Land Use Section, Nobles County, Minnesota", 1969, p. 8.

**Borchert, J. R., "The Urbanization of the Upper Midwest: 1930-1960", UMES No. 2, Feb., 1963, pp. 30-31.

and working with freeway development has resulted in the establishment of many new commercial and industrial firms in Worthington. Several other projects are proposed or under way in the community resulting in the new general attitude that 'I-90 is the best thing that has ever happened to Worthington'.

Worthington is now the largest and fastest growing community in southwestern Minnesota in terms of population. It has been estimated that Worthington will surpass the 12,000 mark in population by 1975, attaining the eleventh highest population growth rate of the 75 largest cities in the state from 1960 to 1975. * Worthington has assumed a dual economic role as a manufacturing center and a trade and service hub for an extensive, agriculturally rich surrounding area. In establishing the status of a regional center, Worthington has assured for itself a great potential in the future.

*Present
and
future
growth
as a
regional
center*

HISTORICAL HIGHWAY TRANSPORTATION PATTERNS

Worthington has an interesting history related to its highway transportation facilities. In the 1930's, U.S. Highway 16 was constructed across the southern part of Minnesota. At that time it was considered one of the superior transportation facilities in the state. It gave southern Minnesota a tremendous economic boost by enabling cities and towns to transport their agricultural products easily and

*Borchert, J. R. & Adams, R. B., "Projected Urban Growth in the Upper Midwest: 1960-1975", UMES No. 8, Aug., 1964, pp. 9-10.

*Benefits
of T.H.
16 in
the past*

cheaply by truck to regional and national markets, while, at the same time, making these communities more accessible in terms of the influx of people and products. In fact, the major city in each county of southern Minnesota along U.S. Highway 16 was in the 'fast growth' category for the period from 1930 to 1960. *

*Decision
to by-
pass*

In Worthington, U.S. Highway 16 was originally routed through the CBD on the town's main street. Due to increasing congestion on city streets and dangerous vehicle-railroad conflicts, the Minnesota Department of Highways decided to construct a bypass in 1947 for U.S. Highway 16, routing it to the north around the community.



Figure 43. The Worthington CBD, surrounded by residential property, trees, and Lake Okabena. The Chicago and North Western railroad is a barrier to residential expansion and unrestricted travel east and south of Worthington.

*Appre-
hensive
attitude*

A businessman in the community during that time remembers the downtown merchants and many of the residents of Worthington being very apprehensive before the bypass was opened to traffic. Their fears were short-lived, however, and they found that business was better than

*Borchert, J. R., "The Urbanization of the Upper Midwest: 1930-1960", UMES No. 2, Feb., 1963, pp. 15-16.

ever after the bypass was opened. In fact, it solved a traffic congestion problem in the CBD, freeing the business streets for traffic of a more profitable nature. In addition, the ever-increasing number of automobiles, adding constantly to the total flow of traffic, soon overcame the loss, while the dust and noise of heavy transports was eliminated. At approximately the same time, a bypass was constructed for Trunk Highways 59 and 60, routing the through traffic to the east and southeast of the CBD. The map below illustrates how the two bypasses combined to successfully reroute through traffic around the community rather than through it.

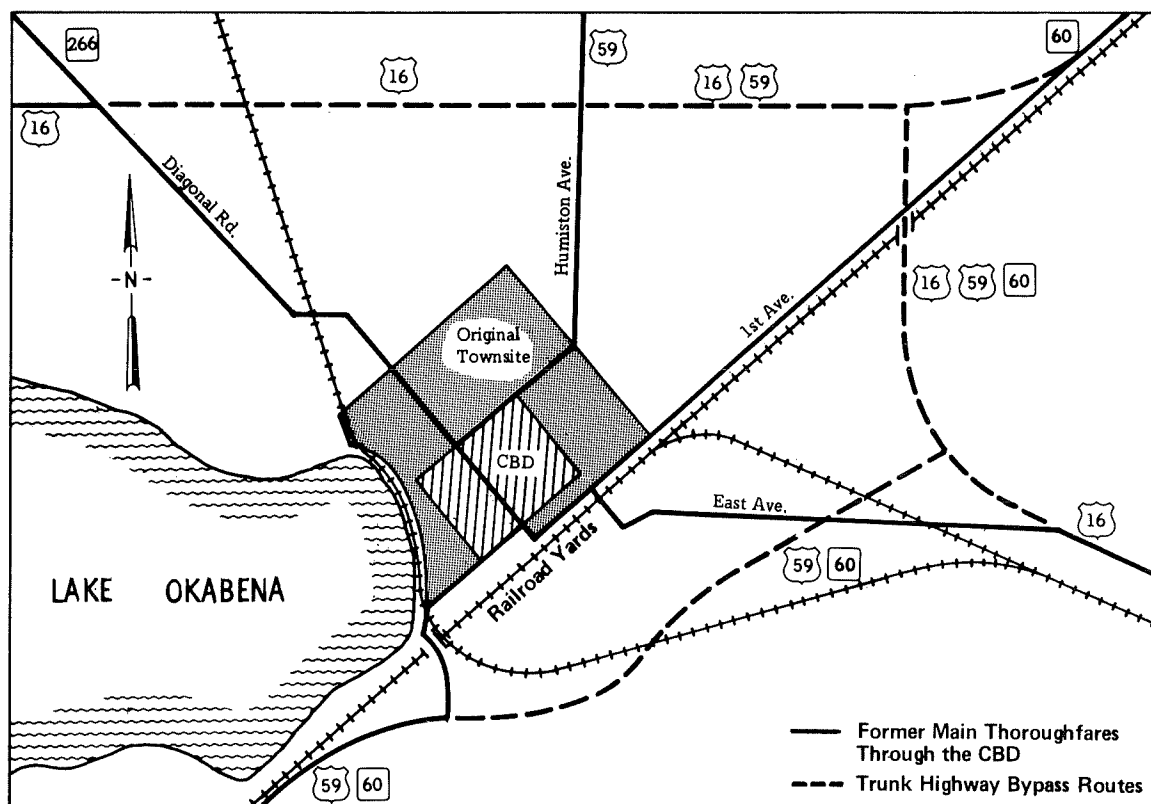


Figure 44. Highway bypass routes around Worthington. These new routes now give the motorist a choice. He can avoid congestion in the community by utilizing the bypass routes or take one of the old highway routes into the CBD.

At the time these bypasses were constructed in 1947, the land surrounding the routes was vacant or utilized for farming. As the population of Worthington grew, this land was soon developed for residential use. In addition, much of the commercial activity decentralized to the outlying highway sites. The U.S. Highway 16 bypass north of the city, named Oxford Street, soon developed into a strip commercial route with limited access control creating severe traffic problems (which will be discussed later). Traffic-sensitive businesses, such as gas stations, restaurants, and motels sprang up along this strip and also at strategic highway intersections of the bypass routes. Other commercial establishments which required large sites for parking or display of merchandise, such as auto dealers, farm implement dealers, mobile home sales, lumber yards, etc., also located at the edge of town as Worthington continued to grow. This was prompted by a land shortage within the downtown area for such activities.

Highway-oriented commercial growth ←

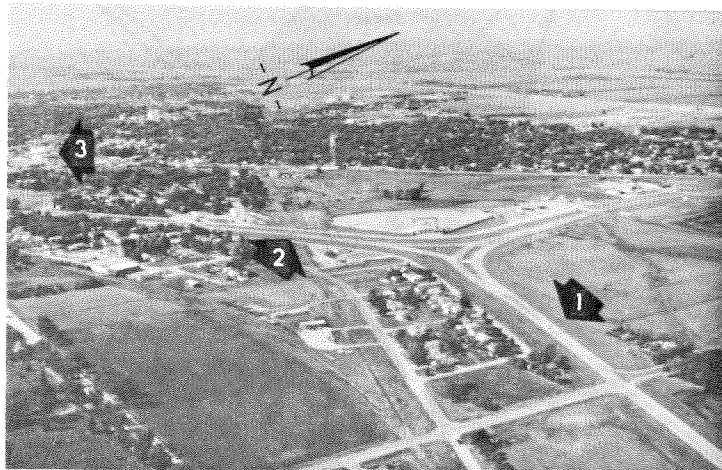


Figure 45. Intersection of the highway bypass routes east of Worthington. Arrow 1 points to U.S. Highway 16 and Arrow 2 designates the bypass route of Trunk Highways 59 and 60. The route north of the intersection has the heaviest commercial development of the bypass routes, next to Oxford St. The CBD is located at the far left of the photograph (Arrow 3).

These traffic and commercial land use patterns have persisted into the 1960's. Traffic surveys, conducted by the Minnesota Department of Highways in the summers of 1959 and 1966, illustrate how the vehicle travel in the area has reinforced these established patterns in Worthington. Six traffic interviewing stations were set up at the major highway entrances into the city to measure local and through trips. It was beyond the scope of the surveys to measure strictly internal trips (those having origin and destination within the city). Thus, the surveys measured only those trips which entered and/or left Worthington through the interview stations.

► Traffic surveys conducted

In 1959, it was found that local trips, either originating or terminating within Worthington, accounted for 70.8 percent of the total trips measured. From interviews at the stations it was found that 39 percent of the local trips were to or from the CBD and 14.6 percent were to or from the commercial strip development along Oxford Street. This represents a substantial penetration of the Worthington area for commercial purposes, at least by area residents. This percentage breakdown was not available in the 1966 study, but it probably did not change very much. Of all the trips measured in 1966, 74 percent were local trips, indicating a possible increase from 1959 to 1966 in the penetration of the Worthington area for commercial purposes.

► Penetration of Worthington for commercial purposes

At the same time, through trips, defined as those trips that have no reason for stopping in Worthington and are merely passing through the city, declined relative to the increasing percentage of local trips. Yet, there was an absolute increase in through trips of 5.1 percent from 1959 to 1966. The number of through trips on

► Through trips increasing

Oxford Street that would be eliminated by the I-90 bypass increased in volume by 60 percent from 1959 to 1966. *

*Results
of
bypasses*

The highways around Worthington have effectively eliminated conflicts of local and through traffic in the CBD. I-90, when it is open to traffic east of Worthington will also separate through traffic from local traffic on Oxford Street and the T.H. 60 bypass, reducing congestion substantially. It has been stated in previous bypass studies that people shop longer and more often in business districts with a relaxed travel and shopping atmosphere. It is probable that the same situation will develop in Worthington.

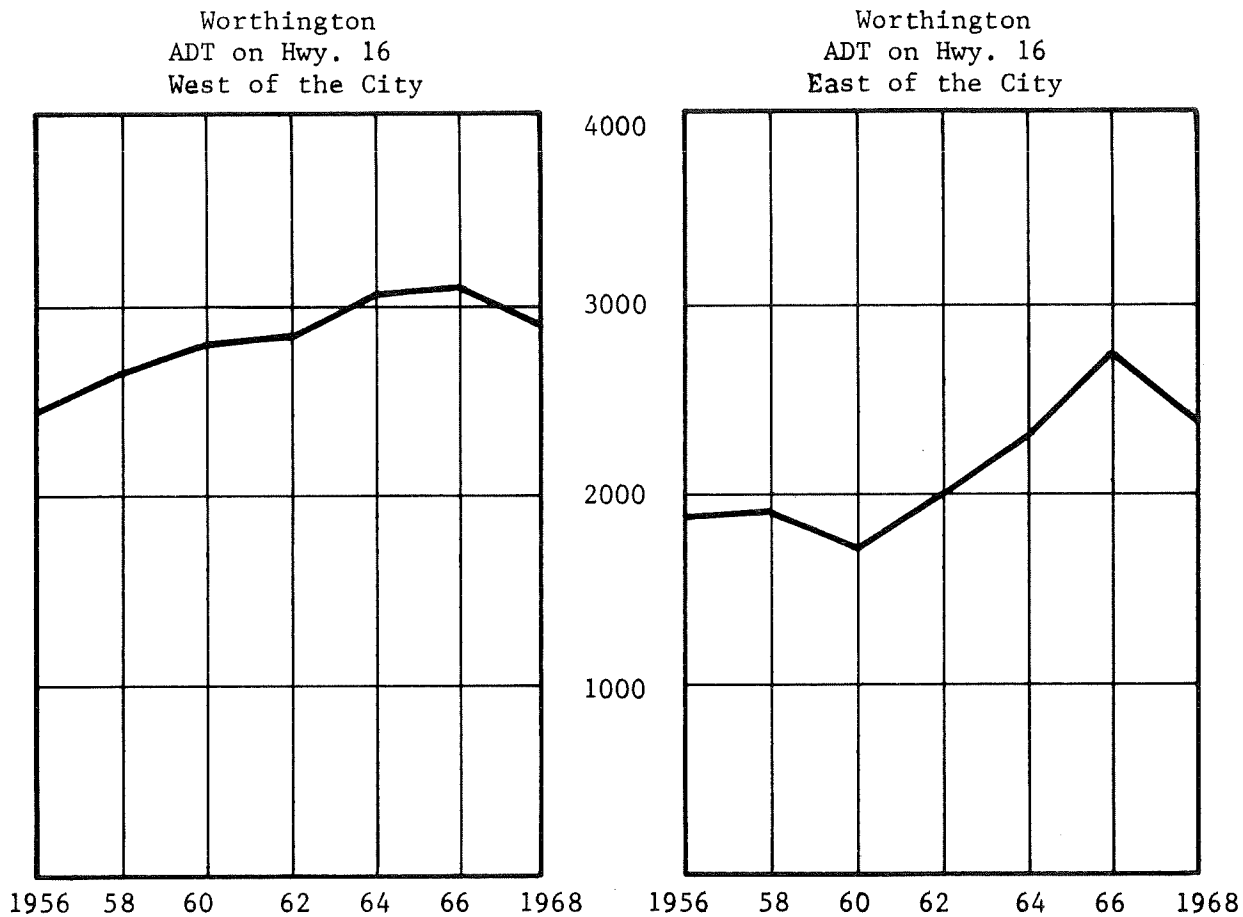
*East-west
traffic
volumes*

The graphs below illustrate the increasing trends of traffic volumes on U.S. Highway 16 east and west of Worthington up to 1966. The drop in the volumes in 1968 can be attributed to the completion of Interstate Freeway 80 across Iowa and Nebraska, drawing a portion of the long-distance truck and automobile traffic off U.S. Highway 16. For example, travel agencies in the east are routing vacationers heading west on I-80 for convenience and safety reasons. Trucking firms shipping freight long distances also prefer the interstate routes for the same reasons. It is expected that when I-90 is completed across Minnesota, it will regain this traffic, in addition to large volumes from other parallel two-lane routes. In fact, traffic volumes on I-90 in the Worthington area are predicted to increase by 100 percent over the present volumes on U.S. Highway 16

*The traffic volume facts and data were derived from a "Worthington Traffic Survey, 1959", and the "1966 Worthington O-D Study". Both were conducted by the Planning and Programming Division of the Minnesota Department of Highways.

by 1975. * Thus, there is a great economic potential in the form of increased traffic on I-90. It will be up to the businessmen and civic leaders of Worthington to take advantage of it for the optimum benefit of the community. *Potential for Worthington* ➡

Figure 46.



Source: Planning and Programming Division of the Minnesota Department of Highways, St. Paul, Minnesota.

*The estimated traffic volume on I-90 around Worthington in 1975 is 6,503 vehicles per day. This estimate is from the Planning and Programming Division of the Minnesota Department of Highways.

CHANGING ECONOMIC AND LAND USE PATTERNS

With more traffic in the Worthington area in the future, via I-90, it can be predicted that a greater number of people will drive off the freeway and transact business in the city. The same results can be expected when State Trunk Highway 60 is upgraded to four-lane expressway standards to Worthington and eventually farther south to Omaha, Nebraska.

In anticipation of the eventual completion of I-90 and T.H. 60, many people in Worthington have become active in recent years to more

*Citizen
activism*

adequately orient the community to these major thoroughfares. Their goal is to reap the greatest economic benefits possible through the attraction of commercial trade and industrial development. One important step which is being considered is large-scale annexation by the city of the land north of the city and south of I-90. A city-rural study

*Annexation
probable*

group has been appointed by the Mayor of Worthington for the express purpose of considering annexation of potential growth areas prior to their development for urban purposes. The land between I-90 and Oxford Street is the prime area on their agenda. In creating this city-rural study group, the mayor was quoted as saying that,

" . . . Worthington and the surrounding areas can no longer allow growth to take place when that growth is not in harmony with further expansion of the city or where that growth should properly be within the city limits". *

* Worthington Daily Globe, July 22, 1969.

A multi-city citizens' group called The Interstate I-90 Committee is actively working on all phases of freeway development. It consists of civic leaders in communities located on I-90 in southern Minnesota from Albert Lea westward to the state line. This committee works primarily with the Minnesota Department of Highways and planning commissions of the various cities in a coordinated effort to get the optimum benefits from Interstate Freeway 90 for southern Minnesota. A primary objective of the Worthington I-90 Committee is to provide a positive image of Worthington to the motorist in an attempt to invite him into the city, primarily into the shopping areas. The people on the I-90 Committee feel that the freeway has provided Worthington with several advantages already in this respect. First, I-90 is close to the city, approximately one-half of a mile north of Oxford Street; second, the freeway is elevated above the surrounding land - nearly twenty feet in some places - providing the motorist with a full view of the community; also, Worthington has two complete interchanges and one partial interchange, providing it with excellent access routes into and out of the city.

*Role of
I-90 Com-
mittee*

*Location
and design
advantages
of I-90*

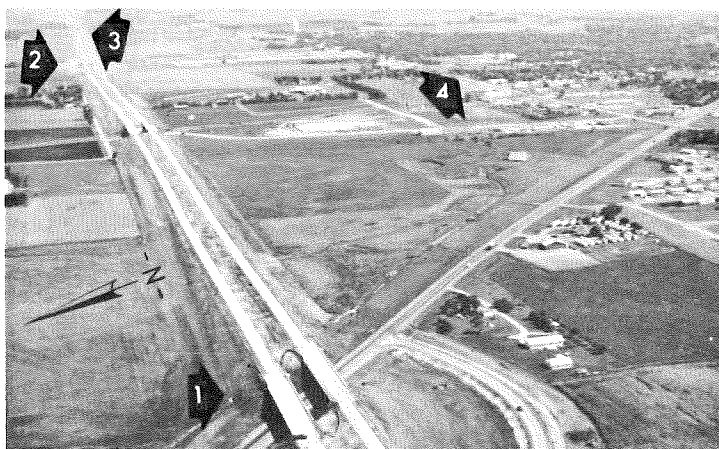


Figure 47. I-90 bypass around Worthington. Arrows 1, 2, and 3 designate overpasses and interchanges at Trunk Highways 266, 59 and 60 respectively. All access routes south from the freeway lead to Oxford Street (Arrow 4), and farther, to the Worthington CBD.

There are several proposals being considered or already under way which are designed to take advantage of the freeway for the economic benefit of Worthington. Possibly the most important is the attraction of a Holiday Inn Motel to Worthington. The city currently owns 9.5 acres of land located on the northwest corner of the U.S. Highway 59 interchange. The I-90 Committee has been given the authority to use this land in the best interest of the city. The Committee is currently negotiating with the Holiday Inn Corporation for location of a 100-unit motel at that interchange. The Committee feels that "a luxury motel of this size would be a fine 'front door' for Worthington and would help much to lure traffic off the busy Interstate". *

*Holiday
Inn
possible
in Worth-
ington*



Worthington received a World Brotherhood Award in 1958 for emergency aid to a war-torn city, Crailsheim, Germany, after World War II, and their continued assistance and interaction with the people of Crailsheim since that time. To perpetuate this world brotherhood image, the I-90 Committee has proposed that an 'Avenue of Flags' be designated from the freeway along U.S. Highway 59 and Humiston Avenue (the primary access route), to the CBD. This would consist of flags of all nations lining both sides of the street with aesthetically pleasing tourist plazas at both ends. Also, a sculpture with an international theme has been proposed to further enhance the image of Worthington as the 'City of Brotherhood'.

*'Avenue
of
Flags'*



* Worthington Daily Globe, March 21, 1969.

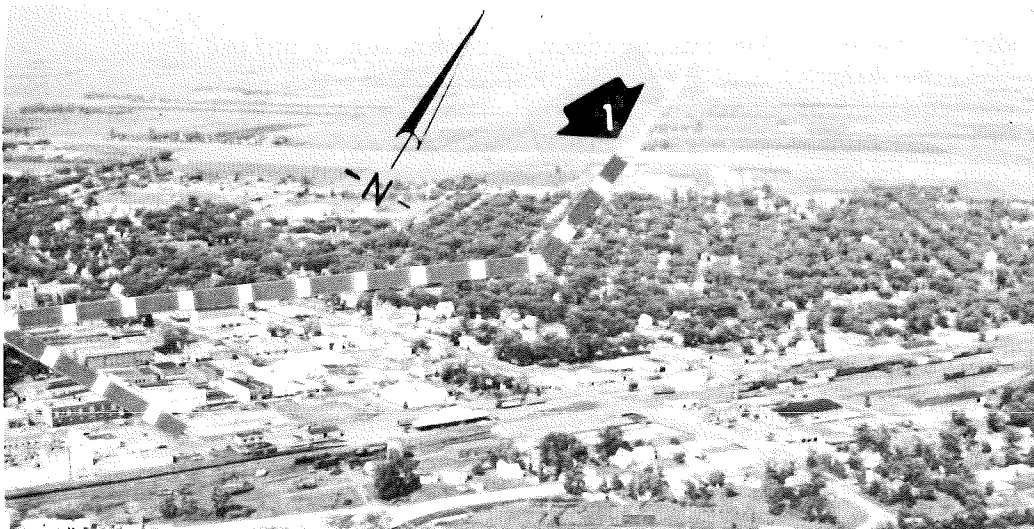


Figure 48. The primary access route to the Worthington CBD. The dashed line indicates the proposed 'Avenue of Flags' route from the freeway to the CBD. Arrow 1 points out the I-90 - T.H. 59 interchange.

Other plans in and around the city include: an Historical Pioneer Village complex; park and camping areas on the lakes south of Worthington and around the fringes of the city; a 'white way' lighting scheme from the main interchange at U.S. Highway 59 to Oxford Street for nighttime drivers; and a 'Progress '69' program under way in the CBD, which includes a facelifting of the downtown store fronts. Other new developments

Because the area is not a natural tourist attraction in terms of mountains, lakes, or woods, Worthington businessmen are making special efforts to project a positive image of the city. Since I-90 was completed to Worthington in December, 1968, the summer of 1969 has brought more tourists into the city than ever before. This is due primarily to the increased camping facilities in and around Worthington. Thus, the efforts of the I-90 Committee are beginning to pay off, and as other

*Anticipat-
ed results
of freeway
oriented
develop-
ments*

projects are completed, the economic benefits are expected to be much greater. The businessmen, presenting a united front as Worthington Chamber of Commerce members, realize it is up to them to induce people to come off the freeway. They expect an even brighter future for Worthington in this respect when I-90 is completed to the east.

*Goals of
Highway 60
Committee*

A similar citizens' group in southwestern Minnesota is the Highway 60 Committee. It was formed six years ago to seek four-lane expressway designation for State Trunk Highway 60 from Mankato to Worthington and farther south. This is the most important link between southwestern Minnesota and the Twin Cities. This goal has been achieved in Minnesota and the group is now working with similar groups in other states farther south to accomplish the same purpose. However, the Minnesota Department of Highways reports that the section of T.H. 60 to the north of Worthington has a higher priority than the portion to the south because of higher traffic volumes expected north of Worthington due to the influence of I-90 and the attraction of the Twin Cities. The people in these state groups hope to see this important southwest diagonal route upgraded to interstate standards some time in the near future. They feel this will be essential because of the predicted heavy traffic volumes between the regional capitals of the Twin Cities and Omaha, and the large intermediate centers along the way.

As mentioned previously, most of the decentralization of commercial activity in Worthington has occurred during the years since World War II. With the advent of the freeway and the expressway, this decentralization will continue in the years ahead, but downtown

Worthington will remain the County's dominant shopping center as steps are taken to make it more convenient and attractive to area residents and tourists. Concomitant with the construction of I-90 has been the coordination and upgrading of access routes to Worthington. Other steps taken in the CBD are the provision of more off-street parking and the establishment of one-way streets to improve accessibility and traffic flow. The facelifting program, mentioned earlier, is designed to renovate the Worthington CBD. An architect is working on all of the downtown blocks, seeking a harmonious blending of the existing building fronts to provide a more conducive atmosphere for shopping.

► *CBD improvements*



Figure 49. Main Street in the CBD in the middle of the day. Note the one-way streets and the lack of congestion.

The downtown businessmen feel that the freeway can be either a blessing or a hindrance for retail trade in the CBD. They say that it is a challenge for the business community to give customers the service, goods, and prices they want to pay to make it a viable shopping center. Experience with the freeway in 1969 has shown them that Worthington can withstand the impact of the Sioux Falls retail draw to the west. The downtown businessmen realize that I-90 is a 'two-way street'. Thus, they are concentrating on creating an attractive shopping climate by upgrading and modernizing their CBD.

► *Attitude that I-90 is a 'two-way street'*

While commercial land use in the CBD has remained relatively

Commer-
cial de-
centraliza-
tion

stable at approximately 20 acres, total commercial land use within the city is over 100 acres today. As mentioned previously, this growth has occurred primarily in the last 20 years along the highway bypass locations as a response to the automobile, but without consistent zoning. Common attractions to these locations are highway exposure, accessibility, and off-street parking. Fortunately, most of Worthington's commercial decentralization has not been 'hard core' shopping facilities which would compete directly with the economic vitality of downtown.



Figures 50 and 51. A small shopping center and a gas station - restaurant combination on opposite sides of the street at the intersection of T.H. 59 and Oxford Street.

Commer-
cial strip
develop-
ment

The major outlying business district is a strip commercial development along Oxford Street. In the past, it presented a traffic circulation problem because the businesses had unlimited access to the heavily-traveled Oxford Street. Now that I-90 is open to traffic, steps are being taken to upgrade Oxford Street. The city of Worthington, in conjunction with the Minnesota Department of Highways, plans to install curbs, gutters, and sidewalks along this commercial strip.



Figure 52. Oxford Street, looking west. Limiting the access to and from these businesses should improve the shopping atmosphere and business conditions on Oxford Street.

INDUSTRIAL DEVELOPMENT

The new freeway and proposed expressway have also played an integral role in industrial development in Worthington. These routes have helped establish Worthington as a regional center. As a hub for the surrounding area, industries looking for locations in this region give Worthington strong consideration. These superior transportation facilities act as lifelines to markets for Worthington's industrial firms and also aid in stimulating new industrial growth.

"Factors such as improved transportation facilities (Interstate Freeway 90 and Highway 60), proximity to regional markets, location in a strong agricultural area, availability of adequate industrial sites and services, and a reasonable supply of labor all point toward continued manufacturing gains." *

Another reason why community leaders are optimistic about future industrial growth in Worthington is related to its location with respect to the towns of Windom and Jackson. All three communities are within 30 miles of each other and are located on highways scheduled to be upgraded to four-lane expressway or freeway standards.

The routing of the three highways forms a triangle with a community at the vertex of each angle. The people in Worthington, Jackson, and Windom view the area as having great potential as a future "triangle of industry" in southwestern Minnesota. In the Worthington

Worthington's attributes regarding industrial location

'Triangle of industry' formed by superior transportation routes

*Hodne/Stageberg Partners Inc., "Planning Studies: A Basis for Comprehensive Planning for Nobles County, Minnesota", 1966, p.9.

area, the Interstate Freeway 90/State Highway 60 interchange had been designated as the County's prime industrial area now and in the future.

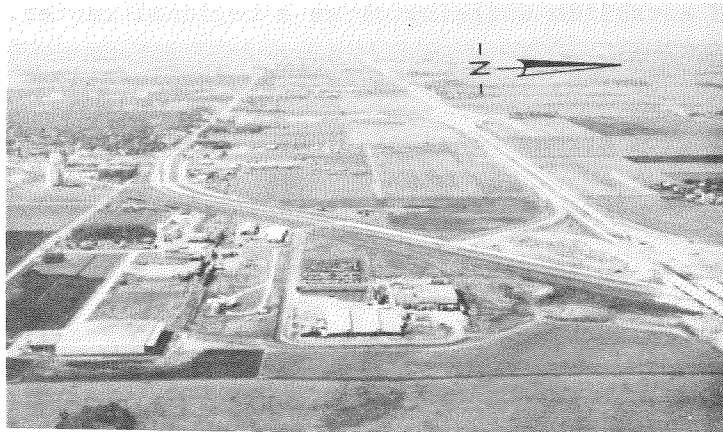


Figure 53. The I-90/T.H. 60 industrial area. Besides excellent highway access, this area also has rail access to the Chicago and North Western Railway which runs between T.H. 60 and the plants in the foreground. Armour & Company is the largest industrial firm in this area.

At the present time, Worthington has approximately 40 manufacturing firms. The largest is the Campbell Soup Company, employing 1100 people. Because of its function as a poultry processing plant, Worthington has gained the reputation as the "Turkey Capital of the World".

Past growth tied to Campbell Soup Co.

Much of Worthington's growth in the 1930's and 1940's can be related to the establishment and growth of the poultry plant. It has been owned by the Campbell Soup Company for a little over ten years.

Worthington's industrial 'boom' in the 1960's is tied primarily to Armour & Company, which located a branch plant in the community in 1964. Approximately 50 percent of the firm's 350 employees were transferred to Worthington from other Armour plants. This provided a tremendous stimulus to Worthington's economy in terms of employment, new resi-

Armour's role in Worthington's industrial 'boom'

dential construction, retail trade, and other related sectors. In addition, Armour & Company helped to start and stimulate several related industries. The general manager of Armour reported that the proposed location of I-90 was a contributing factor in the firm's decision to come to Worthington in 1964. He said that when I-90 is completed across Minnesota, it will be a definite benefit for transporting Armour's outgoing products to major markets in the east.

The advent of Star Mobile Homes in 1969 is expected to provide additional impetus to Worthington's growing economy. The decision was made in the summer of 1969 to locate in Worthington, and company officials expected to be in production before the end of the year. The firm is a division of Divco-Wayne, which is a subsidiary of Boise-Cascade Corporation. The 60,000 square foot plant will employ 150 people after the first year of production. The Star Mobile Homes site is located adjacent to I-90 where the Rock Island railroad passes under the freeway. The company holds an option on another 10 acres adjacent to the present site, and expects to expand facilities and employment in the near future. Star Mobile Homes will move eight or nine key people to Worthington and hire the rest locally.

*Recent
advent of
mobile
home
industry*

*Expected
expansion*

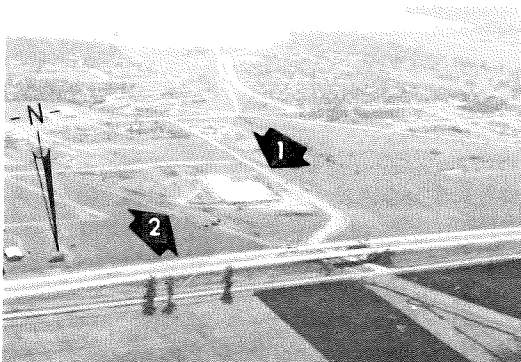


Figure 54. The Star Mobile Homes plant site (Arrow 1) with a portion of the city and Lake Okabena in the background. The plant has excellent access to I-90 and the Rock Island railroad (Arrow 2).

Reasons given for locating Star Mobile Homes in Worthington were availability of labor, the progressiveness of Worthington, faith in the community's future, the benefit of freeway exposure for advertising, the location in the 'center' of a geographic area, and superior transportation facilities. In elaborating on the last two points, a company official was quoted as saying:

Transportation factor in industrial location



"Worthington was a strategic location in our distribution map . . . Virtually all of our finished production is shipped by road, and the highway connections to Interstate 90, Trunk Highway 59, and Expressway 60 at Worthington were a vital factor in the decision to build here." *

Local leaders hailed the news of Star Mobile Homes' decision to locate in Worthington. The Mayor stated:

Benefits for Worthington



"It's a great thing that Star Homes is coming to Worthington. It will provide the impetus for other industries to locate here. The many new jobs offered by the factory will be a great stimulus for the local economy." **

The impact of the mobile home industry on the economy of Minnesota is also expected to be profound. The manufacture of mobile homes is now the fastest growing industry in the state. There were

* Worthington Daily Globe, July 16, 1969.

** Worthington Daily Globe, July 16, 1969.

nine new factories constructed in 1969, resulting in the creation of 900 new jobs. There are ten mobile home manufacturers in the state at the present time, and ten more are expected by the end of 1970. This will mean an addition of approximately 1,500 more new jobs in Minnesota through the mobile home industry. At the present time, Minnesota has nine of the top ten mobile home manufacturers in the nation. The mobile home industry is also attracting supplementary supplier industries into Minnesota. Thus, the economies of several communities in Minnesota, including Worthington, are assured of dynamic future growth through the mobile home industry. *

*Mobile
home
industry
impact in
Minnesota*

Worthington Industries, Inc., a local development organization, was a powerful force in convincing both Armour & Company and Star Mobile Homes to locate in the community. Its work with smaller industries is also impressive. Recently, Worthington Industries has been confronted with a problem of land shortage due to the influx of new industries into the community. The organization is currently negotiating for more land to utilize as sites for industries considering possible moves to Worthington. This is a good sign of the aggressiveness and economic growth of the community. Worthington Industries Inc. is also active in upgrading and expansion programs to improve existing local industries in the community. At least five industrial firms have expanded their facilities in the last two years.

*Work of
Worthington
Industries
Inc.*

* These facts were derived from a discussion with an official from the Industrial Division of the Minnesota Department of Economic Development.

RETAIL TRADE ANALYSIS

In a county planning report, reference to the Worthington trade area is found in the following statement:

"...even though Worthington's business community dominates Nobles County and portions of surrounding counties, there is substantial competition from lesser trade centers within Worthington's trade area, and from major centers such as Sioux Falls and the Minneapolis-St. Paul area." *

Retail
trade
competi-
tion



The map below is a geographic delineation of the Worthington trade area.

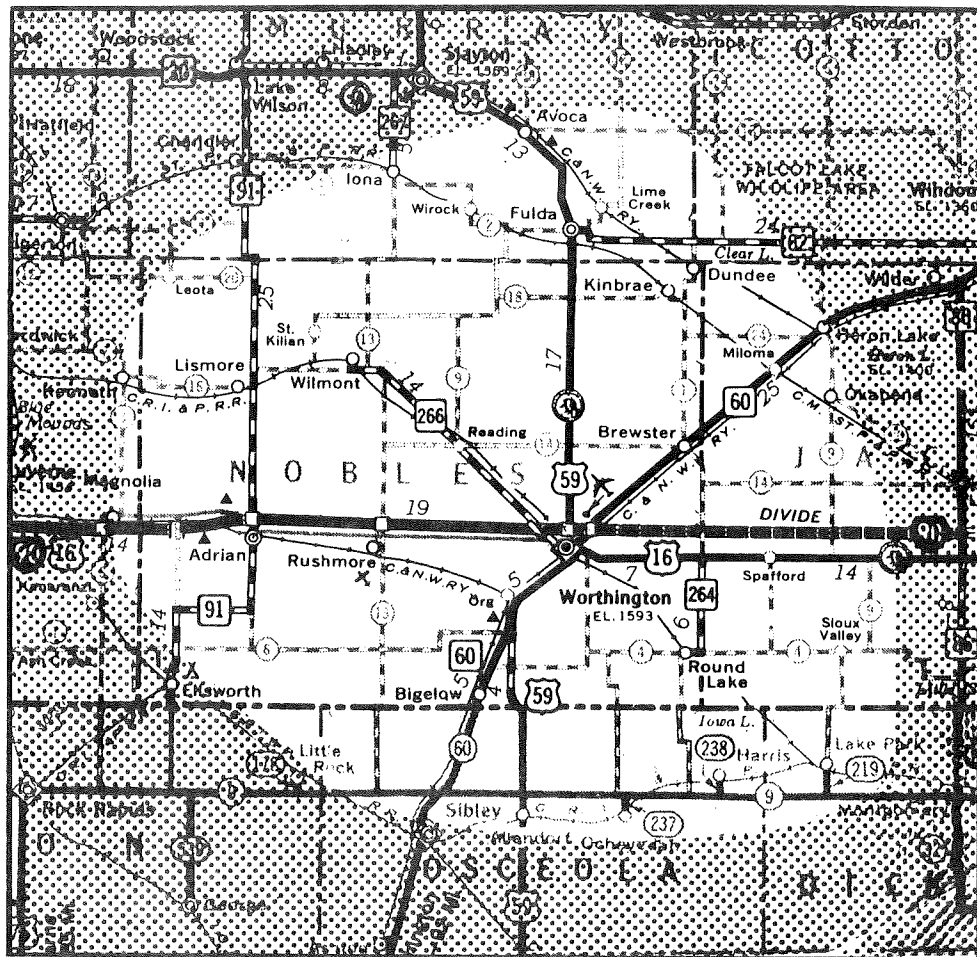
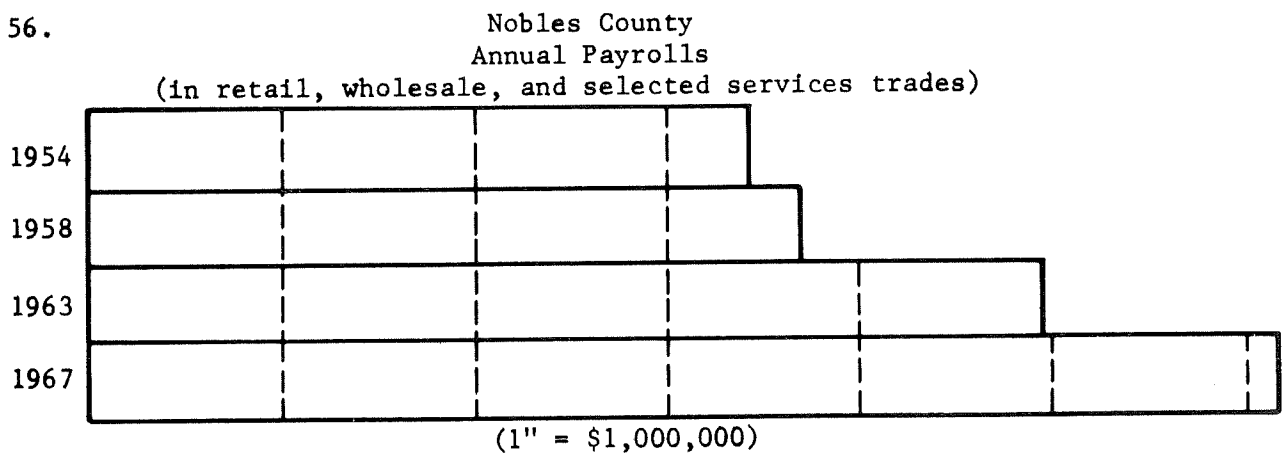


Figure 55.

* Hodne/Stageberg Partners Inc., "Planning Studies: A Basis for Comprehensive Planning for Nobles County, Minnesota", 1966, p. 30. The map was derived from a description of the trade area on page 29.

In terms of retail trade business from local area people, the freeway has an indirect influence. As stated previously, I-90 is a major factor in stimulating industrial relocation and expansion. This adds to Worthington's retail economy through increased payrolls and, with agriculturally-oriented industries, increased farm sales. These are the two major sources of money in circulation for most rural communities in the Upper Midwest. From the graphs below, both indicators illustrate healthy increases for both the city and county in recent years. *Increasing payrolls and farm sales*

Figure 56.



Source: U.S. Census of Business

Figure 57.

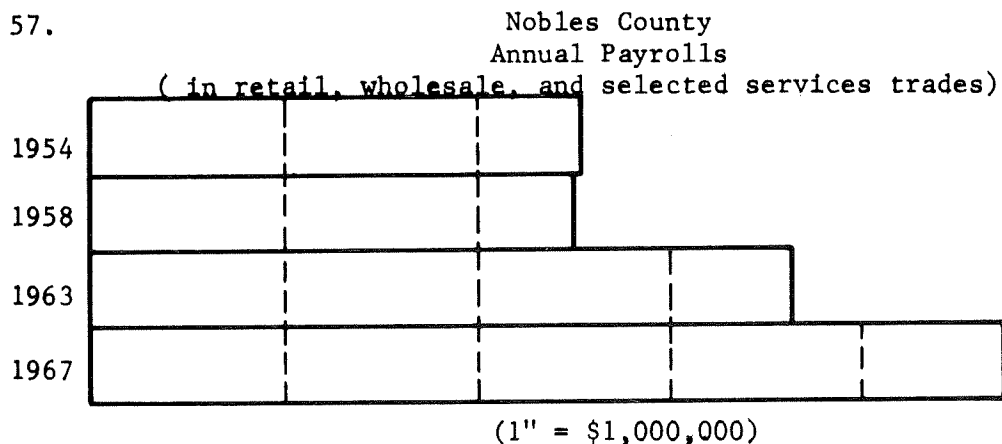
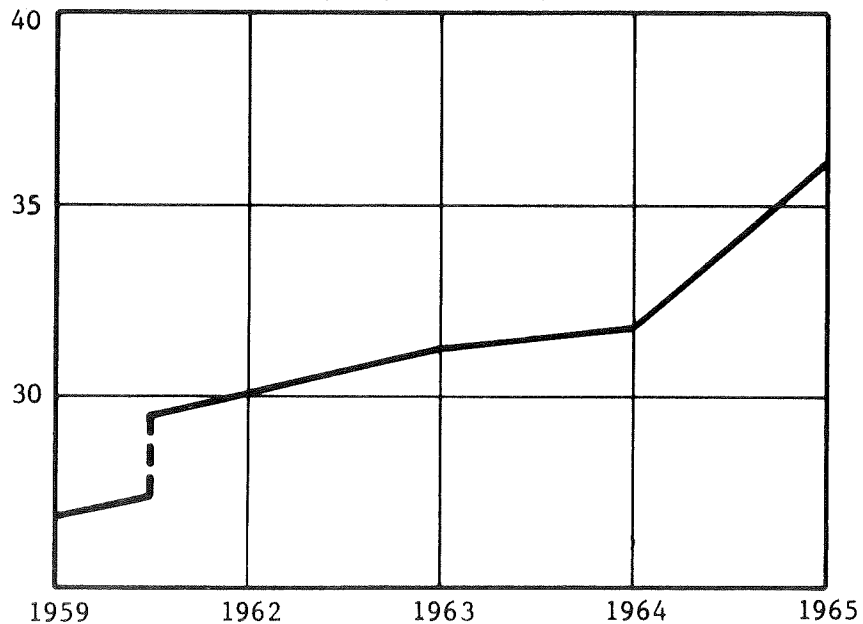


Figure 58

Nobles County
Cash Income Received by Farmers from Crops
Livestock & Livestock Products, and Gov't Payments
(in \$ Millions)

Source:
Minnesota
Department
of
Agriculture



Because Worthington's trade area is comprised primarily of

*Primary
indicators
of retail
potential*

Nobles County, city and county analyses of payrolls and county farm sales are good indicators of potential retail trade volume for the area. The trends illustrate a close correlation with trends of retail trade in the graphs on the following page. Also, a comparison of

*Worthing-
ton's dom-
inance in
retail
sales*

the two retail trade bar graphs illustrates the increasing dominance of Worthington as the prime retail trade center in Nobles County.

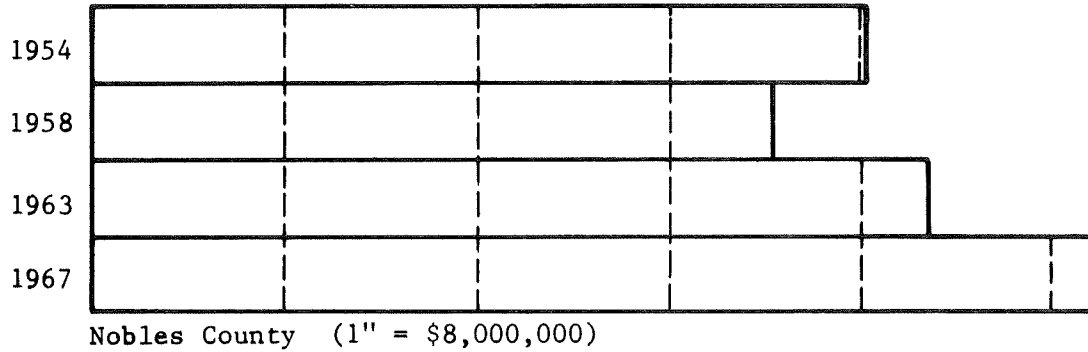
In fact, in 1967, Worthington's retail business represented 77 percent of the total retail sales for Nobles County. The recession of 1958 is reflected in the total retail sales volume of both the city and the county. The increase in retail sales from 1958 to 1963 was 43 percent for Worthington, well above the increase for the state of

*Worthing-
ton kept
pace with
state in-
creases*

Minnesota in those years. Worthington's 31 percent increase in total retail sales from 1963 to 1967 is approximately equal to the state's increase for the same period.

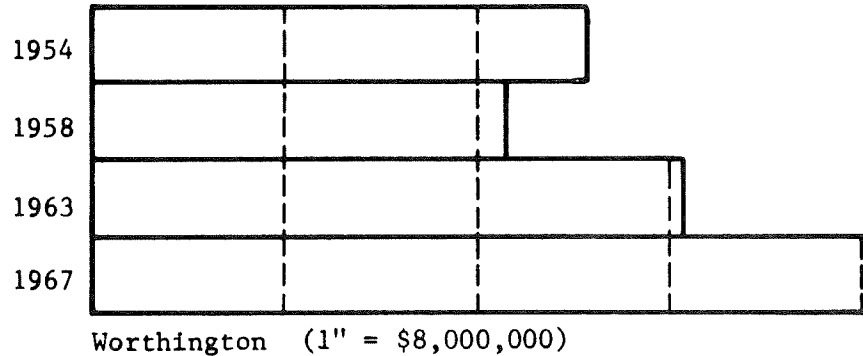
TOTAL RETAIL SALES

Figure 59.



Source: U.S. Census of Business

Figure 60.



Contrary to analyses of retail trade in previous studies, the after effects of freeway bypass cannot be measured with statistical data. This is due to the fact that Worthington was bypassed by I-90 in October, 1969. Thus, the bar graphs represent only the trends of retail trade in Nobles County and Worthington before the advent of I-90. Yet, current personal interviews with local merchants, plus the factors of increasing tourist trade, continued strength of Worthington as a regional center for its surrounding trade area, and growth in other sectors of the community's economy all point to a viable and growing character for Worthington as a retail trade center in the future.

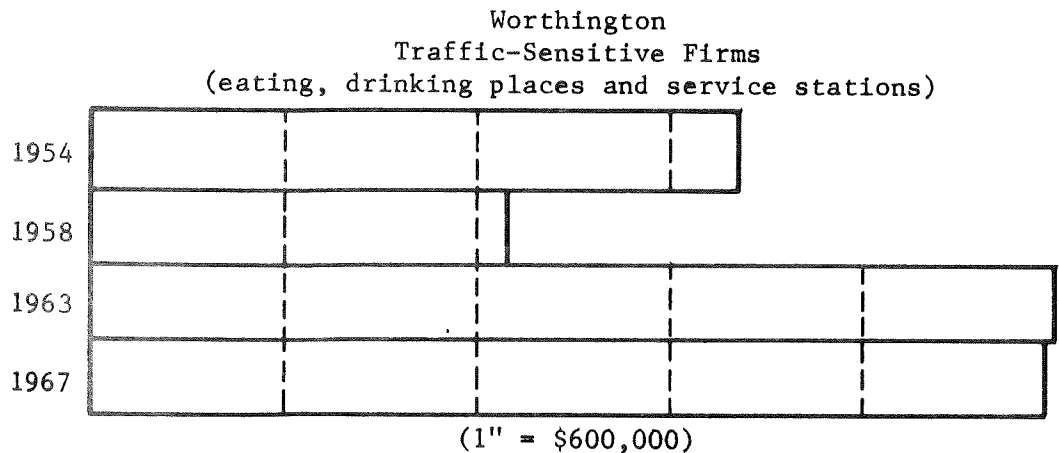
Interviews substantiate growth

TRAFFIC-SENSITIVE FIRMS

Most of Worthington's traffic-sensitive firms (gas stations, motels, and some eating and drinking establishments) are located on the highway bypasses and access routes into the CBD. The major outlying highway business district, along Oxford Street, has a total of 92 retail business establishments, but only 23 are considered traffic-sensitive. Thus, 75 percent of the business firms on Oxford Street cater to local area people. Even though traffic-sensitive firms are only a small percentage of the total number of commercial establishments in Worthington, they are the businesses that would be most affected by the I-90 bypass. The past trends of traffic-sensitive firms are illustrated below.

Traffic-sensitive firms don't dominate local economy

Figure 61.

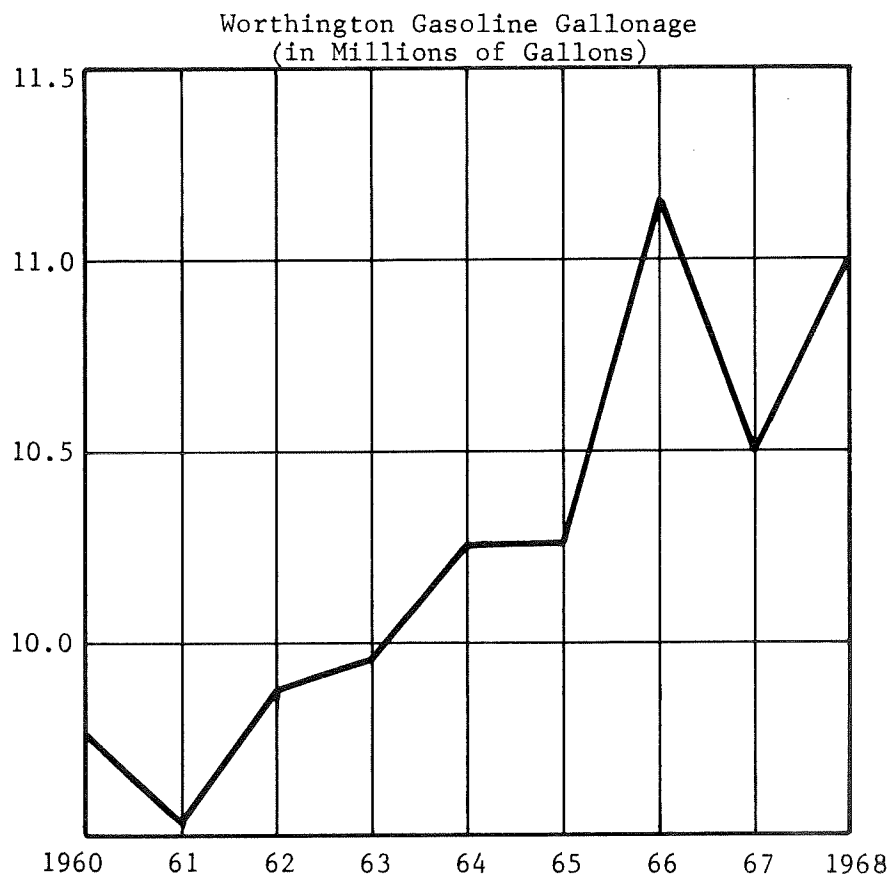


Source: U.S. Census of Business

There are approximately 22 service stations which pump gas in Worthington. They are located along the highway bypasses, the access routes, and in the CBD. The number of gallons of gas pumped in Worthington generally increased in the first half of the decade. Managers of several of the stations reported that recent fluctuations in the trend of gallonage volume are due to gasoline price wars in Worthington and surrounding communities.

Gasoline
gallonage
variable

Figure 62.



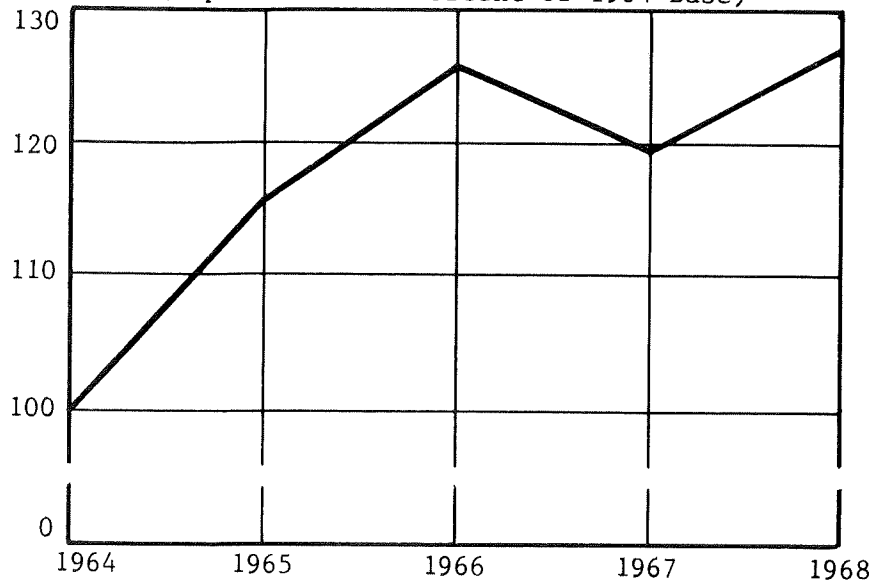
Source: Northwest Petroleum Association, Mpls., Minn.

The two previous indicators for traffic-sensitive firms in Worthington illustrate their business trends in recent years. An analysis of total gross sales of traffic-sensitive firms on Oxford Street for a representative sample of businesses was also available for the individual years from 1964 through 1968. The graph below substantiates the trend of growth in recent years for traffic-sensitive firms, interrupted by a decline in business in 1967. I-90 construction and disruption of traffic movement west of Worthington may have had an indirect influence on the decline in the volume of business done by the traffic-sensitive firms in the city.

*Business
decline
in 1967* ◀

Figure 63.

Total Gross Sales of
Traffic-Sensitive Firms on
Oxford Street
(Expressed as a Percent of 1964 Base)



Source: Minnesota Department of Taxation

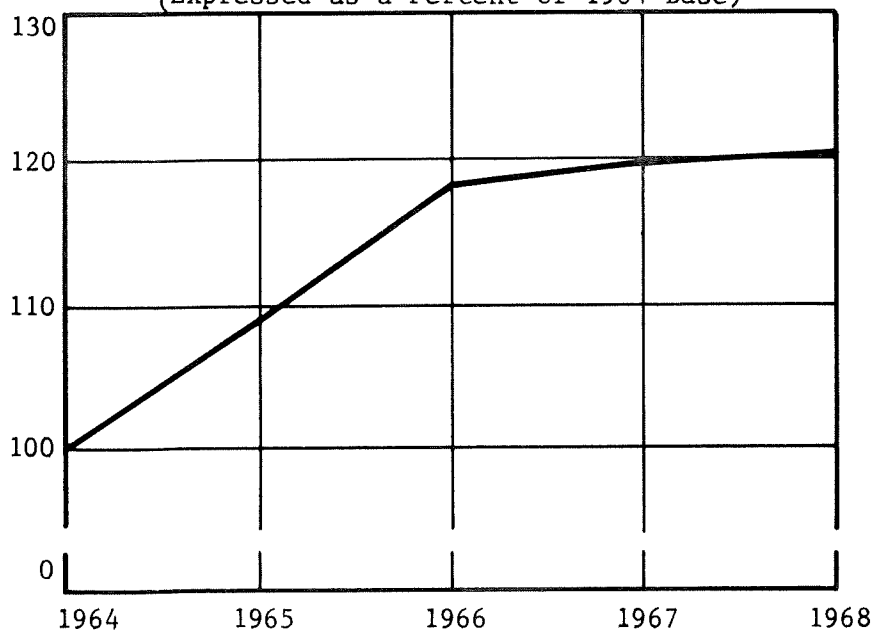
* The income data had to be drawn from the files and summarized to avoid breach of confidentiality. The representative sample of traffic-sensitive firms consisted of approximately 30 percent of the gas stations, eating and drinking places, and motels located on Oxford Street. The data was converted into percentages to more clearly illustrate the business volume trend in this graph, and for comparison purposes with the graph on the following page.

The graph below illustrates the total gross sales trend of retail firms along Oxford Street. The data represents a sample of 35 percent of all the retail establishments on Oxford Street, including the sample of traffic-sensitive firms from the previous page. The increasing trend of gross sales of retail firms on Oxford Street from 1964 to 1966 is probably associated with the economic 'boom' that accompanied the coming of Armour & Company to Worthington. More recently, however, the trend has leveled off. This could be related to the increasing traffic congestion problem on former U.S. Highway 16 and Oxford Street, creating severe 'local shopper - through traffic' conflicts. As stated previously, the majority of firms on Oxford Street are not traffic-sensitive. Thus, they are generally in favor of the I-90 bypass, rerouting the through traffic in order to relieve congestion and acquire a better shopping atmosphere for their trade.

*Oxford
Street
retail
business
stabilized
recently*

Figure 64.

Total Gross Sales of
Retail Firms on
Oxford Street
(Expressed as a Percent of 1964 Base)



Source: Minnesota Department of Taxation

*Mixed
opinions
from
managers
of traf-
fic sens-
itive
firms*

In anticipation of future traffic pattern changes around Worthington, managers of traffic-sensitive firms had mixed feelings about the impact of I-90, depending on the location, physical condition, and solvency of the individual business establishment. At the time the local merchants were interviewed, the I-90 bypass had not been opened around Worthington. Yet, some managers claimed that the loss of long-distance traffic to the recently opened I-80 in Iowa and Nebraska had resulted in a decline in their business volume.

*Location
important*

On Oxford Street, managers of gas stations and eating and drinking establishments at the U.S. Highway 59 intersection, the main access route into Worthington from I-90, were optimistic about the bypass. Those off the intersection felt that the loss of through traffic would have an adverse effect on their businesses. A few managers went so far as to say they may have to close their establishments. However, one gas station owner reported that he is catering more to local area people while diversifying his business to include motorcycles and snowmobiles. He stated that this change in policy was partially a response to the freeway.

*Case of
diversi-
fication*

At other locations in Worthington, managers of traffic-sensitive businesses on the route from the Trunk Highway 266 interchange to the main street in the CBD are generally optimistic regarding the freeway's influence on their businesses and the community as a whole. Managers on State Trunk Highway 60 north of U.S. Highway 16 claim that they are enjoying their best business ever, due to the

influence of I-90 ending at the west edge of Worthington. In contrast, managers of businesses on T.H. 60 south of U.S. Highway 16 claim they are off a little in sales volume due to the influence of I-90 and I-29, a north-south freeway inside the South Dakota border, channeling some of the long-distance southwest bound traffic away from Trunk Highway 60 south of Worthington. The traffic-sensitive firms along T.H. 60 were also a bit apprehensive about the new expressway route, when it is completed to Worthington. They are uncertain about its effects because, at this time, the route of the four-lane expressway through the community has not been decided upon.

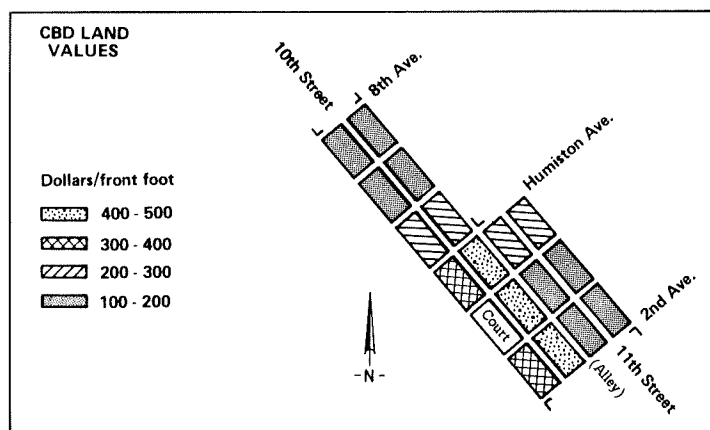
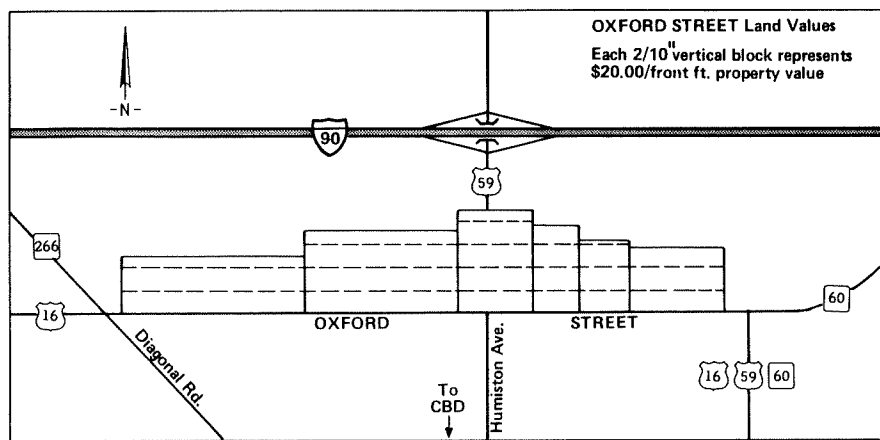
The above examples illustrate the effects of anticipated and actual traffic pattern changes on the opinions of the managers of traffic-sensitive firms at various locations in Worthington. The advent of a major new transportation facility which disrupts traffic patterns usually results in profound geographic and economic changes within a community. Worthington, like other towns and cities along the new interstate freeways, is going through a period of adjustment. Many residents in Worthington feel this is beneficial to the community. It forces marginal retail and traffic-sensitive firms to upgrade, modernize, and diversify their facilities and services, or go out of business.

*Transition
period
viewed as
beneficial*

LAND VALUES

*Land
values
stable*

The maps and accompanying data below represent land values of commercial property in Worthington from 1964 to 1968. The city assessor reports that there was no change in commercial land values during this period, with the exception of an increase for the northwestern-most blocks in the CBD, due to the expansion of downtown commercial business.



There has been little change in the assessed land values of the major commercial districts in recent years. A change in this trend has been predicted, since real estate must be assessed on the basis of actual market value in consideration of highest and best use. This policy, plus the sudden tremendous increases in property values along I-90 as evidenced by recent sales, prompted an article to be written in the Worthington

Daily Globe entitled, "'Tooth-Rattling' Hikes in Taxes on I-90 Corridor Land Seen". The land is defined as lying:

" . . . within a half mile either side of Interstate 90 in the corridor between Highways 266 and 60. Within this zone, demands for land for commercial, industrial, and residential uses has pushed prices out of sight". * (see Fig. 53).

Changes in
land values
around I-90
predicted

Because actual market value was not a consideration at the time of the 1968 assessment, land being used for agriculture is currently being assessed at a value rate of between \$300 and \$450 per acre. As illustrated by the examples below, from the same newspaper article, these agricultural land value figures lag far behind land values which have soared with the arrival of the new freeway.

- A tract of farmland 80 acres in size, contiguous to the southwest quadrant of the Highway 59 interchange, sold at a price reported to be slightly over \$1,300 an acre. One acre, just off the freeway exit ramp was sold to Continental Oil Company for the reported price of \$65,000.
- The city of Worthington owns 9.5 acres of land adjacent to the northwest ramp of the Highway 59 interchange. Holiday Inn Corporation wants to put a motel development there. The city granted an option on seven acres of the property for \$72,500 or \$10,355 an acre.
- Two farmers with property having no direct road access to I-90 were reportedly asking \$2,000 and \$8,000 an acre, respectively, for their land. These were asking prices, not sales.

Recent
prices for
land near
I-90


Thus, the property within the I-90 corridor is definitely in a transition period in terms of land use. Close in land north of the city and near the freeway is rapidly becoming too valuable to farm.

* Worthington Daily Globe, May 15, 1969.


EMPLOYMENT

Because of Worthington's dominance as the region's employment center, it was stated in a county planning report that,

"...nearly twice as many 1960 work trips were made into rather than out of Nobles County. Without exception, each of the surrounding counties sent more workers to Nobles County than they received from the county. This situation 'speaks well' for and reflects the strong, self-sustaining economic nature of Nobles County. Very probably, the overbalance of 'in' over 'out' trips is greater now than in 1960 due to the recent significant employment gains in Worthington." *

*Employment
draw of
Worthington* 

The graph of Worthington's average annual employment clearly shows the community's economic vitality and growth in the 1960's.

*Healthy
annual
employment
increases* 

Total employment has grown at a rate of almost 200 people a year. The greatest growth was recorded in 1965 when Armour & Company swung into full production, resulting in the expansion of several sectors of Worthington's economy. A similar impact is expected in 1970 due to the advent of Star Mobile Homes in Worthington. Average monthly employment shows a seven percent fluctuation per year with the month of July recording the highest employment. The reason for the large difference in employment from December to January is the termination of construction work and the Christmas season at the end of the year.

Even though total employment in Worthington is steadily increas-

* Hodne/Stageberg Partners Inc., "Planning Studies: A basis for Comprehensive Planning for Nobles County, Minnesota", 1966, p. 21.

ing, there are considerable variations in the trends of average annual employment in the different categories. Retail, wholesale, manufacturing, and government employment increases are tied to the economic 'boom' and the resulting growth in Worthington during the 1960's. The trends in the other categories are related to annual fluctuations in the local economic conditions.

Individual categories indicate variable trends

The Department of Employment Security supplied the data for the following ten graphs.

Figure 67.

Worthington
Total Non-Farm Wage and
Salary Employment

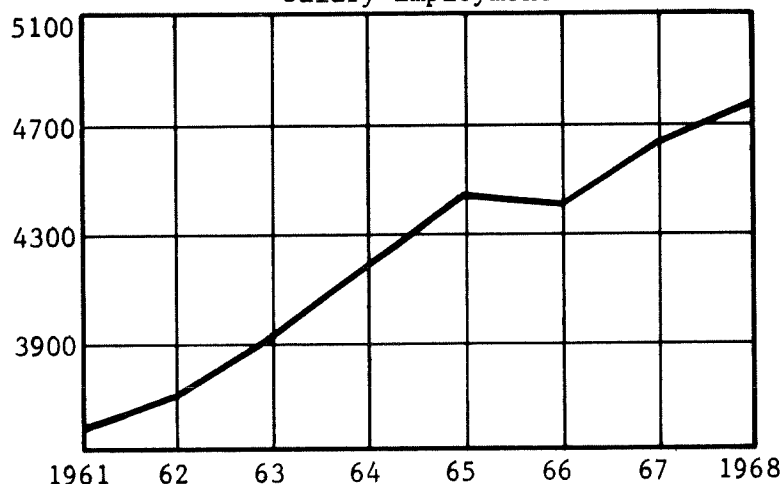


Figure 68.

Worthington
Average Monthly Non-Farm Wage and Salary Employment (1961-1968)

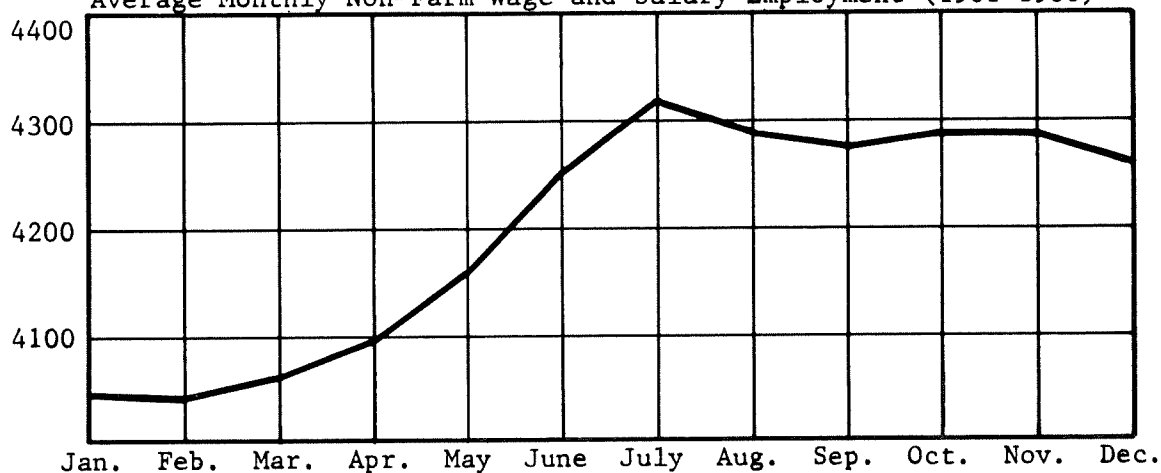


Figure 69.

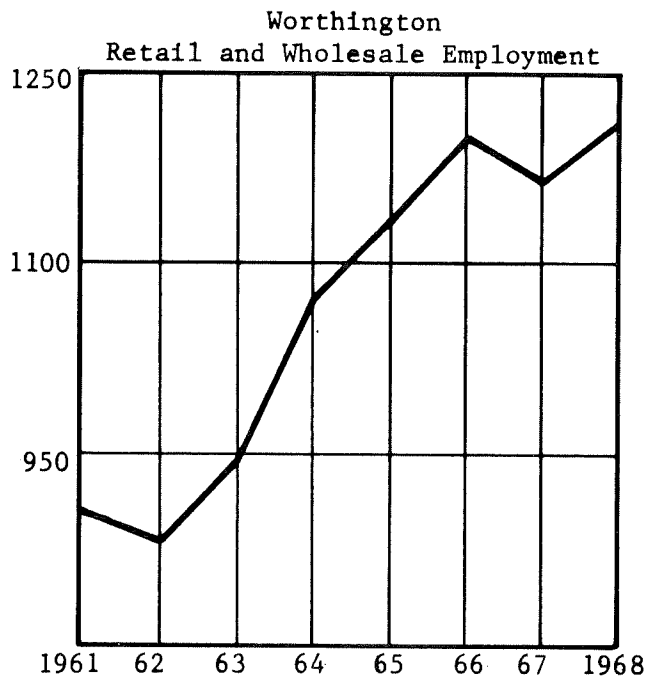


Figure 70.

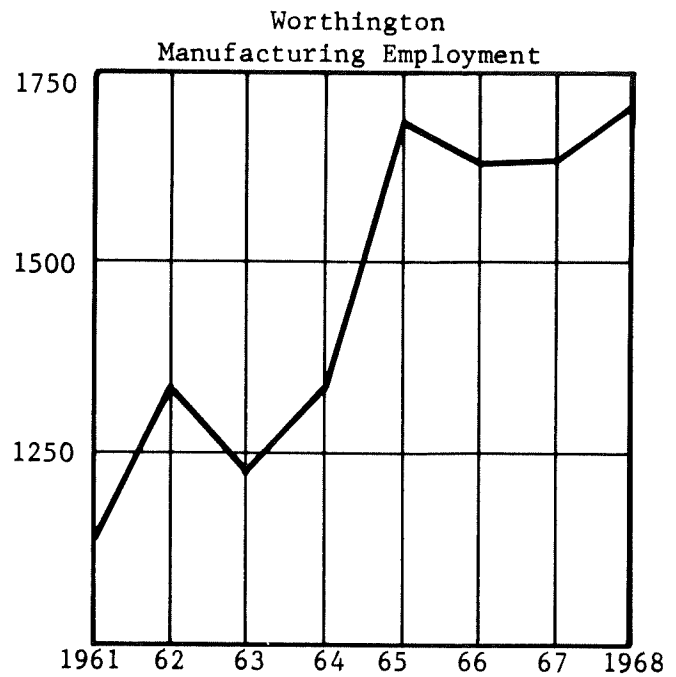


Figure 71.

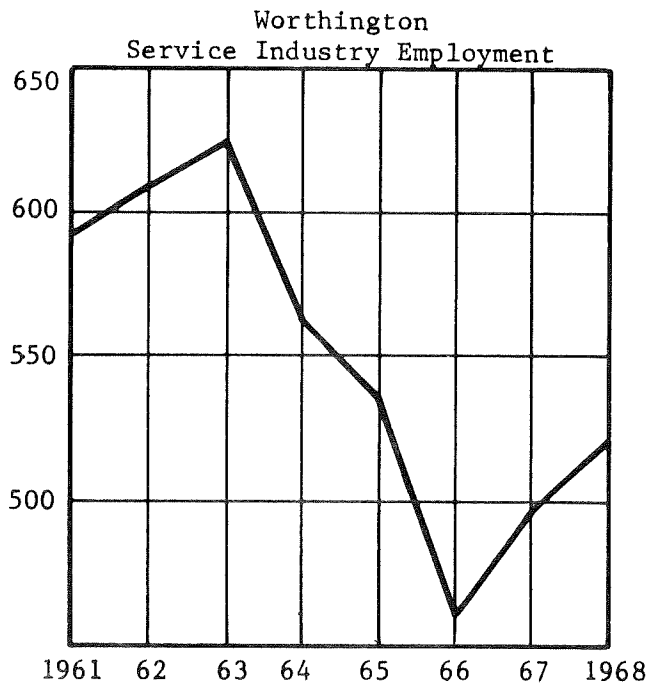


Figure 72.

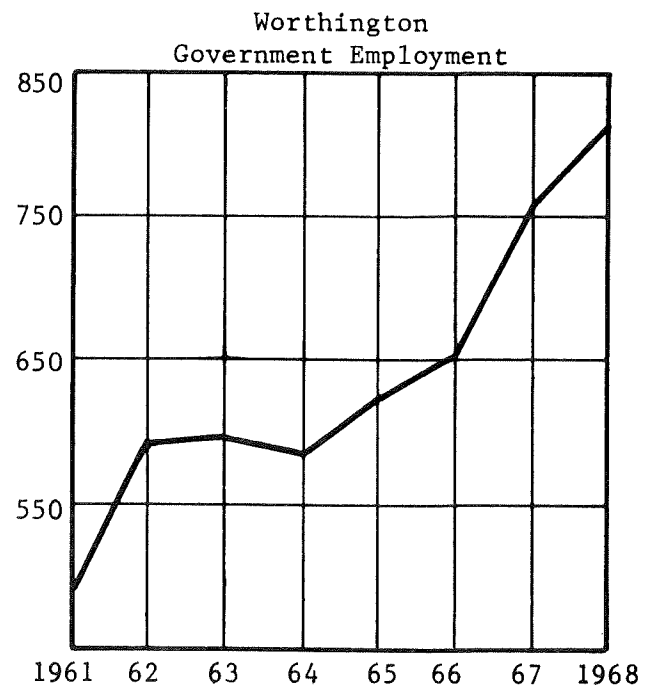


Figure 73.

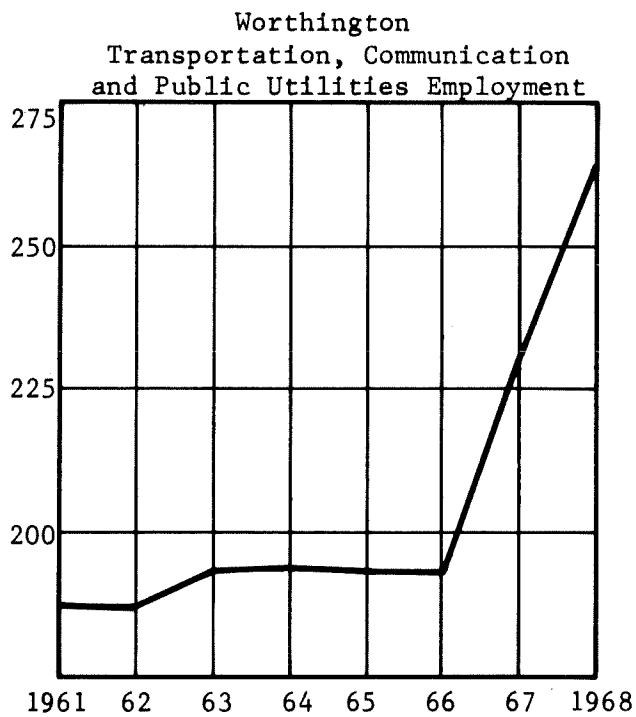


Figure 74.

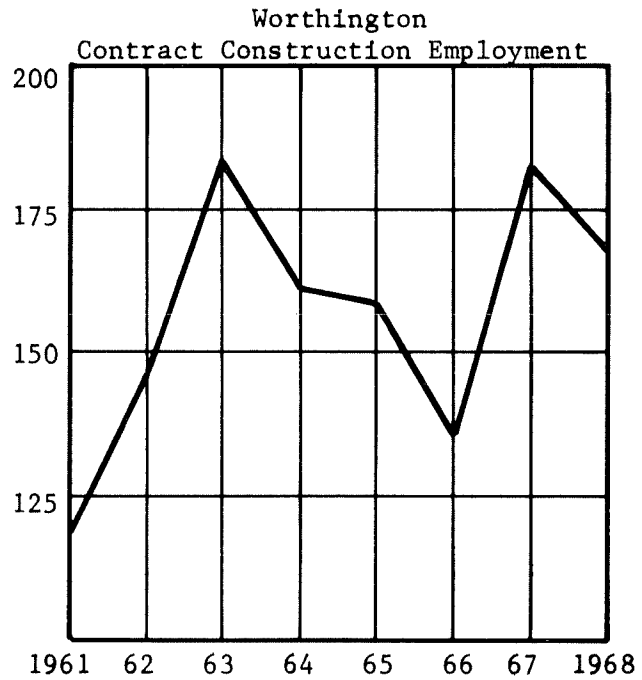


Figure 75.

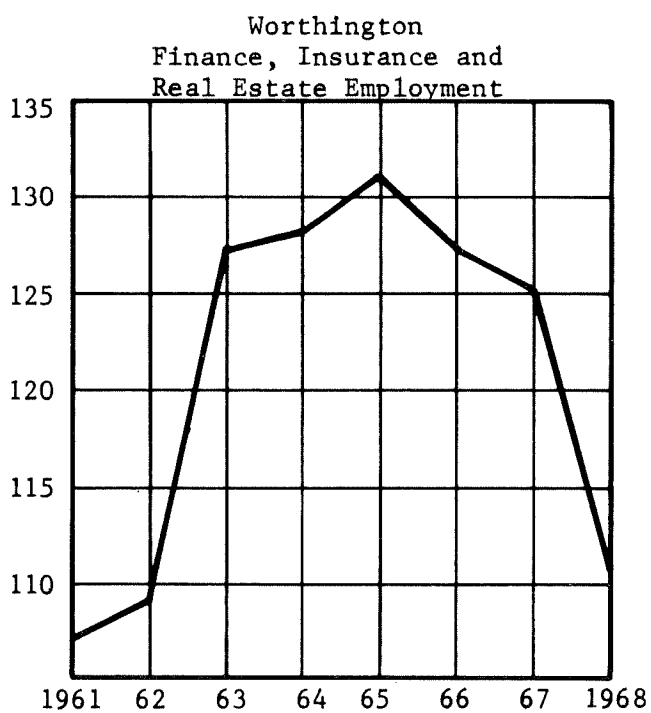
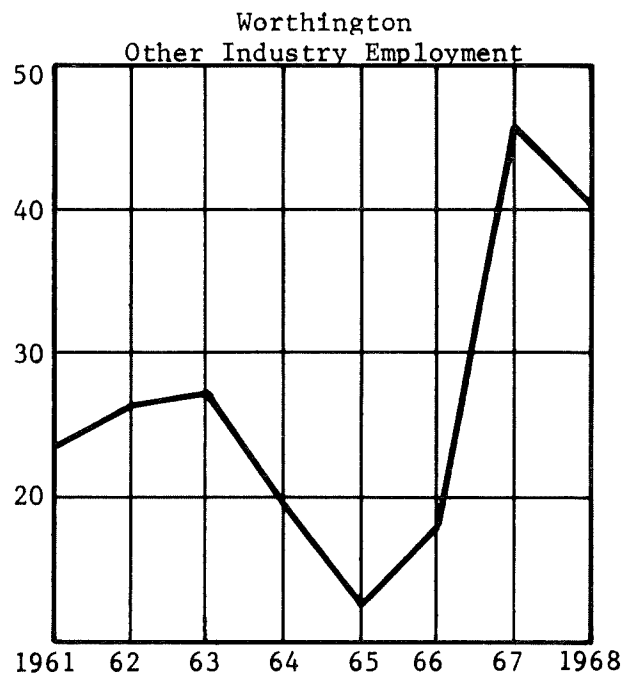


Figure 76.



BANK DEBITS

The trend of bank debits in Worthington is increasing at an increasing rate, a healthy sign for the community. A local banker reported that bank debits do not truly reflect all of the growth in Worthington. For example, Armour & Company has its bank accounts in St. Paul. However, the trend is a solid indication of progress in the community. The banker stated that much of the increase is related to several public building and capital improvement projects.

*Sharpest
increase
recorded
in 1969*

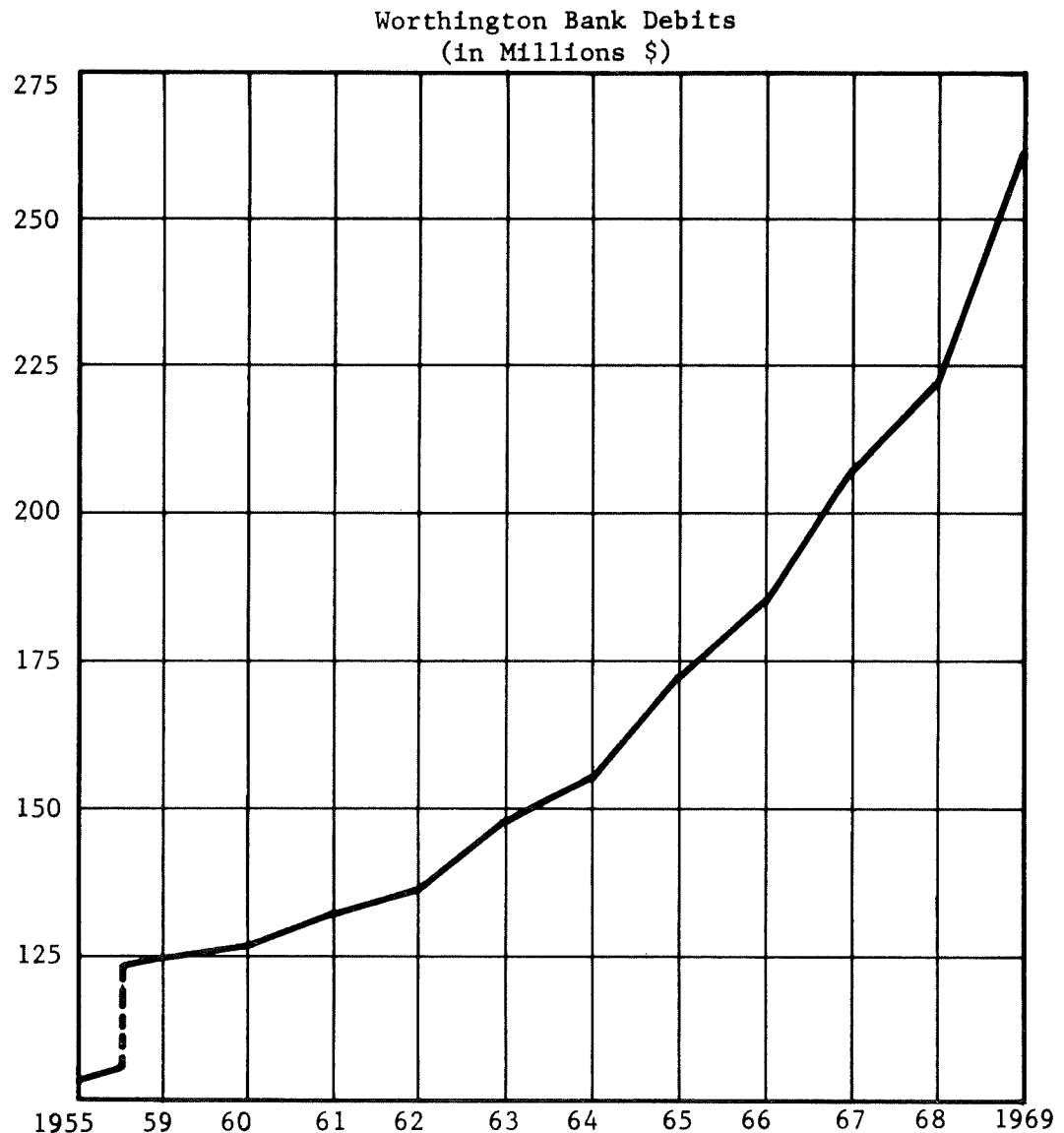


Figure 77.

Source: Federal Reserve Bank, Minneapolis, Minnesota

BUILDING PERMITS

Both total and residential construction and the total valuation of permits reflect relatively stable trends in Worthington up until 1968. These stable trends were predicted to change in the early part of 1969. An article appearing in the Worthington Daily Globe in January of that year was entitled, "Next: Biggest Building Season in History." A figure of \$5.5 million worth of new building was forecasted in 1969. From the valuation graph below, it can be seen that this estimate was about a million dollars too high. This was primarily a result of the tight money situation which existed in 1969.

114 unit housing-for-the-elderly project caused sudden increase in housing units

Figure 78.

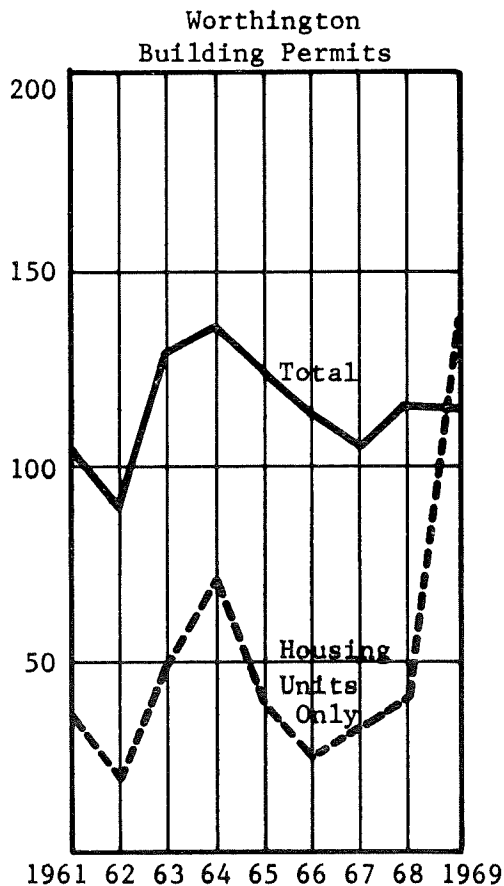
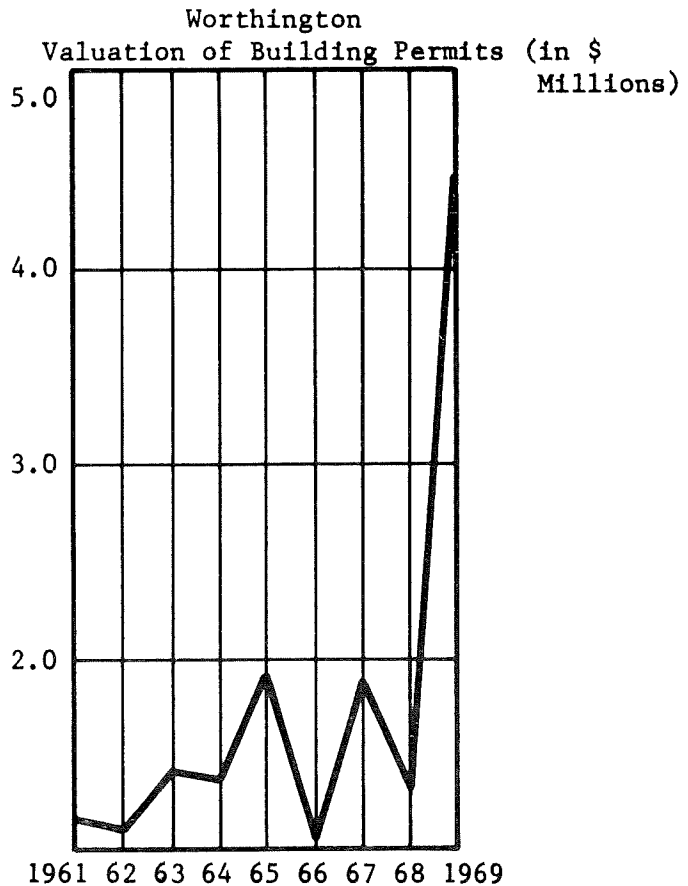


Figure 79.

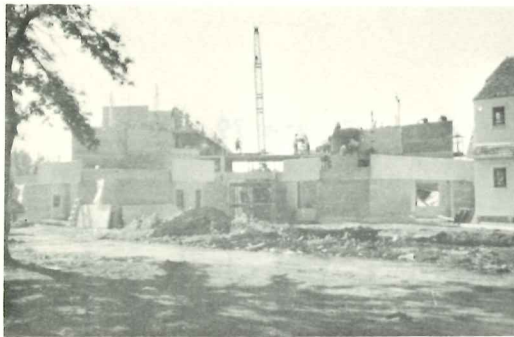


Source: Federal Reserve Bank, Minneapolis, Minnesota

In a Builders Edition supplement to the Worthington paper on June 21, 1969, it stated that contracts already awarded or soon to be let include,

- a municipal hospital addition
- a low-cost housing-for-the-elderly complex
- another building for the Worthington State Junior College
- a new airport terminal building
- a new Worthington Public Schools administration building
- a station-store complex at the U.S. Highway 59 interchange

New
constru-
ction



Figures 80 and 81. The housing-for-the-elderly and municipal hospital addition projects. These are only two examples of new construction taking place in Worthington.

In addition, a number of private housing contracts have already been awarded. Under consideration are a Holiday Inn motel-restaurant complex, several retail business renovation projects, numerous medical facility expansions, and a private apartment development. Of course, the Star Mobile Homes plant, not discussed in the articles, was also built in 1969. Even in an article talking about the 'five years of boom' transforming the city's appearance, it concludes that the commercial building in any of the past five years falls far short of the record about to be established in 1969.

Proposed
projects



TRAFFIC SAFETY

As indicated by the graphs below, total accidents in Worthington and accidents on Oxford Street have been on the rise in the 1960's.

When the Worthington Police Chief was interviewed in the summer of 1969, he expected a sharp reduction in accidents after the I-90 bypass was opened to traffic. This would be especially true on Oxford Street as a result of the elimination of through car and truck traffic, and the subsequent upgrading of the route.

Reduction in accidents expected following I-90 bypass opening

Figure 82.

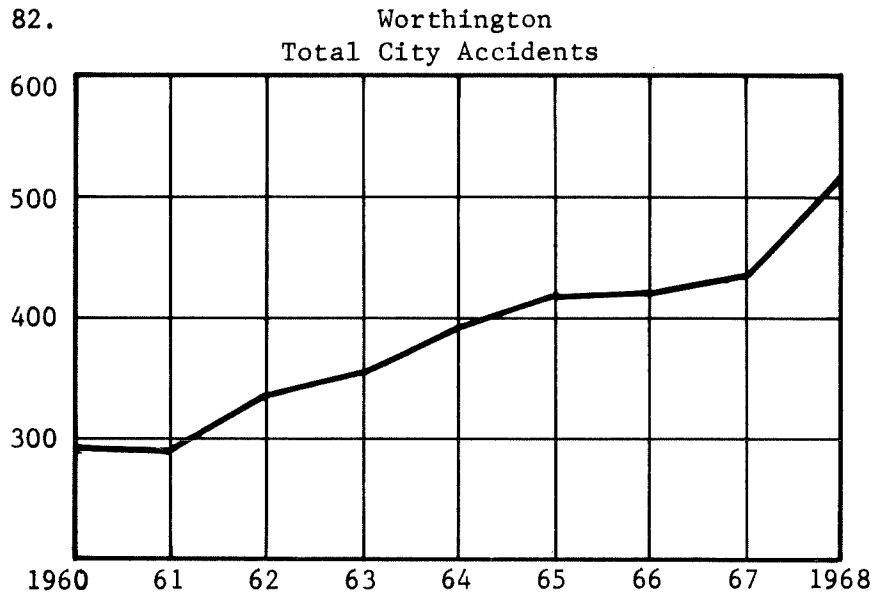
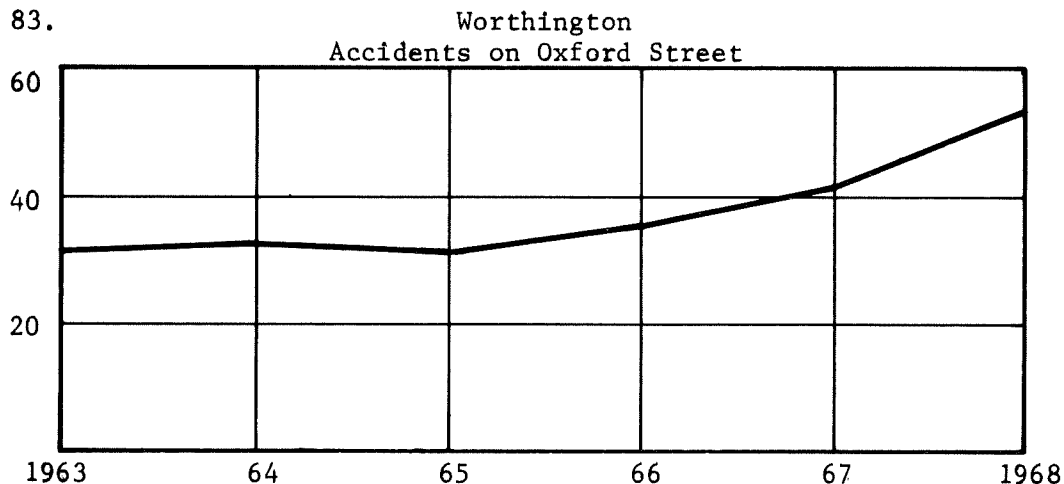


Figure 83.



Source: Police Department, Worthington, Minnesota

SUMMARY AND CONCLUSIONS

The major findings in this study on the economic impact of a freeway and its bypass routes, with reference to each community, have

Individual conclusions ◀ been summarized individually for Luverne on page 19, Adrian on page 39, and Worthington on pages 55 and 56. Each community was analyzed in terms of its transportation facilities, especially I-90, and the results of actual or anticipated traffic pattern changes on their economic structures.

Methodology used ◀ Past, present, and estimated future traffic volumes in and around each community were analyzed with respect to retail business

Retail trade ◀ trends and developments in recent years. Growth in retail trade in the form of increased sales volumes and new commercial establishments are evidenced in all three communities. The business trends of traffic-sensitive firms, as indicated by statistics and interviews, were

Traffic-sensitive firms ◀ more variable than the trends of retail trade as a whole. As through traffic was rerouted from the city streets to I-90, new commercial establishments followed the usual pattern of concentrating at or near the interchange(s), resulting in a period of adjustment for the existing traffic-sensitive firms on the old highway routes in each community.

The freeway has been a major contributor to industrial growth and development in Luverne, Adrian, and Worthington during the 1960's.

Transportation facilities and industrial location ◀ Today, most industries are not tied to either their raw material or market locations, as in the past. Land and labor costs are now the major locational factors. Yet, most industries are still transportation-oriented; that is, they are interested in receiving raw materials and shipping out finished products to their major markets as quickly, safely, and cheaply as possible. Thus industrial firms wanting to

locate branch plants away from operationally-expensive large metropolitan areas look favorably on outstate communities located on the Interstate System. In Luverne, Adrian, and Worthington, industrial growth has strengthened their economic bases by adding new employment opportunities and more money in circulation to the local economy.

► *Impact of industry*

This has resulted in a circular growth process in all three communities; industrial growth means population growth which stimulates other sectors of the economy, making each individual community more attractive in terms of possible additional industrial development. City officials, businessmen, and civic leaders in Luverne, Adrian, and Worthington realize that industrial development is a key to growth now and in the future. Besides stimulating the growth of existing industries, the close proximity of I-90 gives the townspeople an important additional 'selling point' for attracting new industry.

► *Key to growth*

Two other statistical indicators, bank debits and building permits, also generally reflect increased economic activity in all three communities during the 1960's. The impact of I-90 has stimulated other sectors of the local economies which have reacted on bank debits and building permits, producing increasing trends in recent years.

► *Relation of I-90 to bank debits and building permits*

A non-economic indicator, traffic safety, was also utilized to illustrate the impact of the freeway bypassing Luverne and Worthington. (statistics were not available for Adrian). Luverne experienced an actual reduction in the number of traffic accidents, and Worthington anticipated similar results when the I-90 bypass was opened to traffic in October, 1969.

► *Local traffic safety*

In addition, statistics in 1968 show again that travel on the Interstate System continued to be much safer than on conventional two-lane highways. In Minnesota, 2.24 persons were killed for each 100 million vehicle miles of travel on interstate freeways, compared with 5.54 on other roads. The total 1969 fatality rate for all highways was 970, a sharp reduction from the previous year. The reduction was partially attributed to several safety programs in effect as well as to increased travel on interstate freeways.

State-wide traffic safety

The availability of trend indicators is important in considering the validity of conclusions on the economic impact of I-90 by-passing Luverne, Adrian, and Worthington. For example, Worthington

Trend indicators and validity of conclusions

is the largest of the three communities and had more information and statistics available from which to draw conclusions. The conclusions for Adrian, on the other hand, had to be drawn largely from observations and interviews. However, from the data available for the three communities, it is evident that the economic benefits of I-90 far outweigh its detriments. Luverne and Worthington have strengthened their positions as dominant manufacturing, trade, and service centers in their respective counties. Even Adrian, a small town previously faced with the possibility of eventual extinction, has established itself as a viable trade center, largely through the efforts of the townspeople orienting a major share of the community's future economic development to the freeway. While not always the determining

I-90 and economic growth in the 1960's

factor, I-90 has played a significant role in the economic growth of Luverne, Adrian, and Worthington in the 1960's and is expected to have an even greater impact in the future.