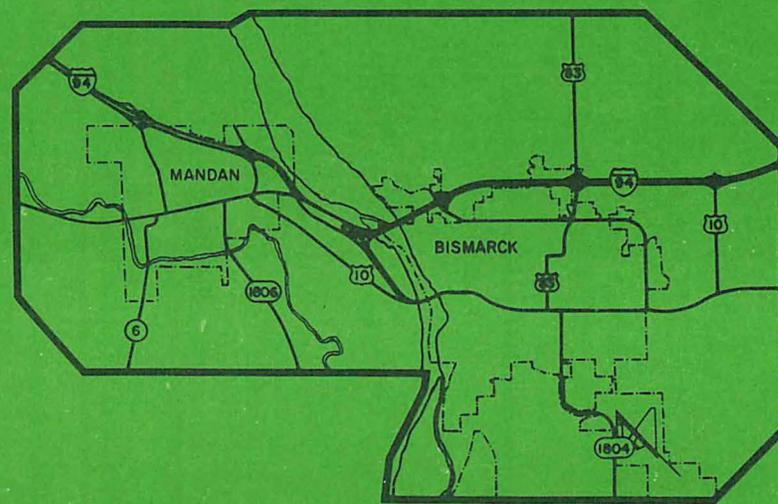


# BISMARCK - MANDAN



**POPULATION AND ECONOMIC BASE STUDY**

**URBAN AREA  
TRANSPORTATION STUDY**

BISMARCK-MANDAN  
1968 POPULATION ECONOMIC BASE STUDY

A MEMORANDUM REPORT  
OF THE BISMARCK-MANDAN  
URBAN AREA TRANSPORTATION STUDY

Prepared by

North Dakota State Highway Department  
Planning and Research Division

in cooperation with

U. S. Department of Transportation  
Federal Highway Administration

## TABLE OF CONTENTS

	<u>Page</u>
Foreword	iii
Introduction	1
Present Data	3
Trade Area	4
Study Area	4
Population	7
Employment	9
School Enrollment	11
Sales - Wholesale and Retail	14
Construction and Housing Vacancy	14
Utilities - Telephone and Electricity	17
Future Data - Outlook	19
Projections	20
Appendix	29

## ILLUSTRATIONS

<u>No.</u>		<u>Page</u>
1	Trade Area Data	5
2	Burleigh and Morton County Farm Data	6
3	1968 Population Characteristics and Area	7
4	Population Percentage Distribution by Age	8
5	1968 Study Area Employment by Industry	10
6	Public School Enrollment History	12
7	Public and Non-public School Enrollment for 1969	13
8	N. Dak. Taxable Sales for Selected Cities	15
9	Retail Proprietors Firms and Sales for Selected Cities and North Dakota	16
10	Wholesale Trade Establishment, Sales and Payroll for Selected Cities and North Dakota	16
11	Bismarck-Mandan Residential and Commercial Construction Permits from 1959-1968	17
12	Number of Telephones, Telephone Lines, and Electricity Customers for years 1960-1968	18
13	Bismarck-Mandan Trade Area Employment Projections	23
14	Bismarck-Mandan Study Area Population Projections	24
15	Bismarck-Mandan Study Area Employment Projections	26

## LIST OF GRAPHS

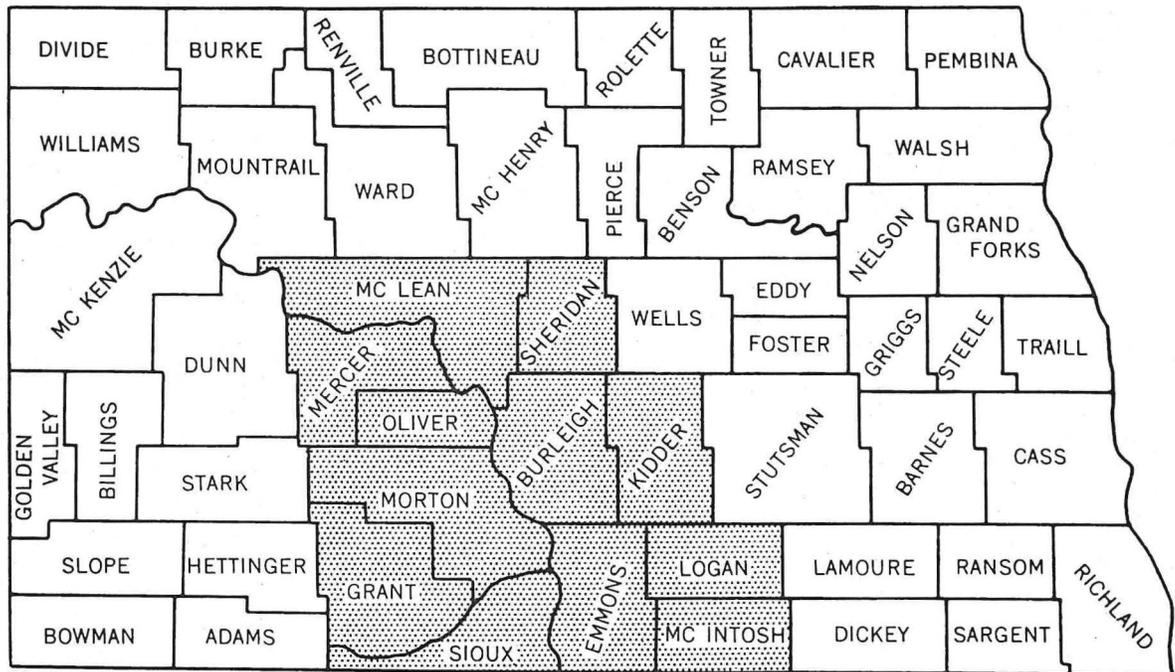
<u>Graph</u>		<u>Page</u>
1	North Dakota Population Growth	21
2	Population Trend and Projections	22
3	Bismarck Employment Trends	27
4	Mandan Employment Trends	28

## F O R E W O R D

The "Population and Economic Base Study" report is one in a series of four memorandum reports written as an information guide prior to the formulation of the Bismarck-Mandan Urban Area Transportation Study Final Report. The data presented in this report are a collection of past trends in population and employment growth for the study area and are projected to best illustrate anticipated growth in future years. The projections are based on the assumption of a continuation of these past trends.

The information tabulated in this report becomes a valuable tool in comprehending the traffic needs of the community. Using these aids along with the data recorded in the other memorandum reports, an organized plan of required traffic improvements for the Bismarck-Mandan area can be instituted.

# BISMARCK-MANDAN TRADE AREA



## INTRODUCTION

Bismarck and Mandan provide goods and services to a 12 county trade area of over 18,000 square miles in South Central North Dakota. Bismarck, the State Capitol, is situated on the east side of the Missouri River, while Mandan is located on the west side near the confluence of the Heart and Missouri Rivers. The 1968 survey determined Mandan's population to be 10,855 and Bismarck had approximately 33,748.

The Missouri Slope region west of Mandan and the Missouri River is better suited for extensive livestock ranching, while the drift prairie east of Bismarck is better suited to grain farming. Precipitation amounts to about 15 inches per year in the area under consideration.

When observing the different modes of transportation through the study area it becomes apparent that the general orientation of traffic to and through the area is basically east-west. There are few sizeable cities in the semi-arid Great Plains which run from Canada to Mexico, therefore, most of the raw materials from North Dakota or incoming finished goods go east and west.

The area is served by three commercial airlines; Northwest, basically serving the east-west corridor; and North Central and Frontier principally tending north-south travel. The east-west flights carried approximately 75% of the passengers, airmail, and express destined to and from Bismarck while the freight hauled was approximately equal between the east-west and north-south flights during 1968.

The transcontinental Burlington Northern Railroad serves Bismarck-Mandan from east and west with freight and passenger service, while the local Soo Line branch provides freight service in a general north-south direction.

The highway systems provide very adequate vehicular travel through the area. The interstate highway system (I-94) provides for the heavier east-west travel while the north-south travel is served by US 83.

The location of the American Oil Refinery north of Mandan in 1954 had an initial impact on Mandan by providing construction jobs. Since that time, the refinery's operation has helped to stabilize Bismarck and Mandan employment. This year-round type of operation helps to dampen the fluctuations in the local economy which are aggravated by the seasonal changes in the agricultural and construction industries.

The amount of non-agricultural production in Bismarck and Mandan is very small. However, many statewide or regional offices are located in the study area, because Bismarck is a centrally located State Capitol. The recent establishment of such headquarters as the North Dakota Association of Rural Electric Cooperatives near Mandan in 1967 and Montana-Dakota Utilities main office in Bismarck in 1968 follows this trend of location. These two cities, like other North Dakota cities are largely dependent on secondary industries.

The secondary industries of government, services, wholesale trade, retail trade, and medical services provide the main economic basis for Bismarck-Mandan. These secondary industries accounted for 13,990 employed persons, while the total of employed persons was 16,639 in Bismarck-Mandan in 1968.

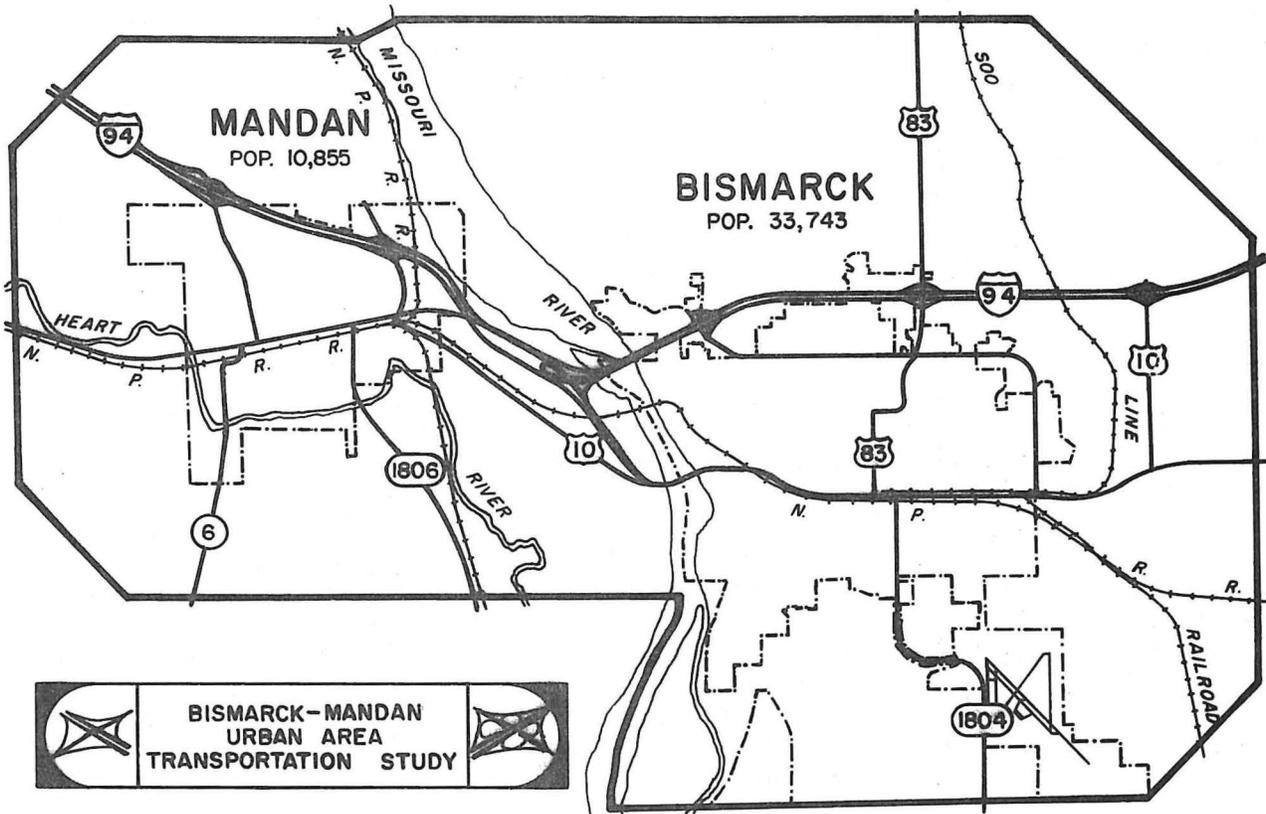
The fact of the seasonal changes in North Dakota causes tremendous fluctuations in employment in the agricultural and construction industries. However, Bismarck is less vulnerable seasonally, because of the stabilizing effect of centralized government and other centralized functions.

Bismarck and Mandan are very interdependent economically, but they still have their individual stimuli. Mandan is influenced directly by Morton County because it is the county seat. Bismarck is influenced directly as the county seat of Burleigh County and as the Capitol of North Dakota.

Bismarck is affected directly by the State Capitol and indirectly by the federal programs which support a large state level government which can administrate federal-aid programs. In fact, North Dakota is one of the highest ranking states in per capita receipt of unilateral federal payments.

MAP 2

BISMARCK - MANDAN STUDY AREA



P R E S E N T   D A T A

The study area under consideration includes 64 square miles in the cities and surrounding fringes of Bismarck and Mandan, North Dakota. However, this specific area is very dependent upon a larger area, because of the effect of the rest of the county, state and nation on each of the two cities.

## TRADE AREA

The consideration of the Bismarck-Mandan study area is difficult without first examining the twelve-county trade area which supports the two cities and understanding the dependence of the two cities on the rural economies of the counties. Therefore, the trade area will be considered first, as Table 1 is used to present the data by county giving the area, population, "Effective Buying Income", and taxable sales for each. In addition, Table 2 offers farm data which includes size and value of farms, value of products sold, vehicles used, and specified expenditures for Morton and Burleigh Counties.

Preliminary 1970 census figures released by the U. S. Bureau of Census indicate a population of 113,114 in the twelve county trade area. The 1960 population of the counties was 118,632 giving a loss of 5,518 during the ten year period.

The 1970 census figures indicate only one county had a population gain for the ten year period. Burleigh county had a net gain of 6,646. However, the rural population in the county has continued to decline since the city of Bismarck showed a gain of 7,033 during the ten year period.

The "Effective Buying Income" as listed in Sales Management is after-tax or disposable income. Burleigh County was credited with having \$99,179,000 "Effective Buying Income" in 1967. Morton was second in the 12 county area with \$45,343,000. The average for the 12 county trade area was nearly \$20,000,000 per county. The taxable sales followed a ranking order which was similar to the "Effective Buying Income." Mandan recorded \$15,000,000 and Bismarck enjoyed \$62,000,000 of the \$134,000,000 in total taxable sales plus direct payment sales in the 12 county area.

The total number of Morton County farms and Burleigh County farms dropped between 1959 and 1964. At the same time, the farms became larger, and the value per acre increased by over 30%.

Dairy products sold in Morton and Burleigh Counties in 1964 were increased considerably over 1959. Other livestock products, excluding poultry and dairy decreased from 1959 to 1964, while field crops more than tripled in value.

The Bismarck-Mandan study area includes only portions of Burleigh and Morton Counties, but all twelve counties listed in Table 1 are believed to exert considerable influence on the cities of Bismarck and Mandan. This rural influence is demonstrated by the types of retail goods which are offered and by the considerable wholesale trade which is enjoyed by Bismarck and Mandan.

## STUDY AREA

There are no easy ways of determining present and future needs of an area economy, such as the Bismarck-Mandan area. Therefore, various

Table 1

## TRADE AREA DATA

## Bismarck-Mandan Urban Area Transportation Study

County	Area. Sq. Mi. <u>1/</u>	July 1, 1966 Est. Population <u>2/</u>	% Change (60-66) <u>2/</u>	Effective Buying Income Est. 1967 <u>3/</u>	Total of Taxable Sales and of Purchases on which Tax was Payable Directly to Tax Dept. <u>4/</u>	
					1967	1966
Burleigh	1,648	36,900	8.6	\$ 99,179,000	\$ 64,082,700	\$ 59,031,500
Emmons	1,546	7,300	-14.1	10,939,000	6,730,300	6,573,100
Grant	1,664	5,100	-19.1	11,185,000	3,456,100	3,181,900
Kidder	1,377	5,100	- 5.2	7,031,000	2,689,200	2,414,700
Logan	1,003	4,500	-16.9	6,623,000	3,668,800	3,547,200
McIntosh	993	6,200	- 7.3	10,245,000	5,168,100	4,750,100
McLean	2,090	12,900	- 8.3	25,364,000	11,444,300	11,836,000
Mercer	1,041	6,600	- 3.7	12,755,000	10,651,600	9,643,600
Morton	1,933	20,400	- 2.9	45,343,000	22,897,300	21,858,900
Oliver	720	2,000	-21.5	2,782,000	470,300	496,000
Sheridan	995	3,400	-22.0	3,758,000	2,056,200	2,081,700
Sioux	1,124	4,000	9.3	7,129,000	1,063,000	1,135,300
Total	16,134	114,400		\$242,333,000	\$134,377,900	\$126,550,000

1/ U.S. Census of Population 1960, PC(1) 36A, Table 6, P. 36-12.

2/ Bureau of the Census Pop. Estimates, Series P-25, No. 404, Sept. 27, 1968.

3/ (Comparable to After-Tax Disposable Income) D-158, Sales Management '68.

4/ North Dakota Sales and Use Tax Statistical Report, 1967, Table 4, Page 30.

Table 2

## BURLEIGH AND MORTON COUNTY FARM DATA

## Bismarck-Mandan Urban Area Transportation Study

	Morton County		Burleigh County	
	1959	1964	1959	1964
Number of Farms	1,284	1,168	1,022	867
Average Size of Farms	967.2 acres	1,040.3 acres	1,015.1 acres	1,180.1 acres
Value Per Farm of Land & Buildings	\$ 33,948	\$ 47,983	\$ 38,909	\$ 62,560
Value Per Acre	\$ 34.85	\$ 46.09	\$ 37.11	\$ 50.76
Value of Products Sold				
All Farms	\$8,390,005	\$10,455,210	\$8,128,617	\$9,554,059
Average Per Farm	6,659	8,951	8,145	11,020
Field Crops	1,059,126	3,966,944	1,391,661	4,212,199
Dairy Products	1,351,674	1,778,632	553,411	728,870
Other Livestock Products				
Excluding Poultry & Dairy	5,833,121	4,596,070	5,923,566	4,419,855
Vehicles Used				
Automobiles	1,185	1,116	919	825
Trucks (including pickups)	1,133	1,082	839	791
Tractors (other than garden)	---	3,014	---	2,457
Specified Expenditures				
Fuel for Business Use	\$1,073,382	\$1,179,794	\$ 945,179	\$1,060,774
Hired Labor	313,902	357,671	565,846	533,792
Machine Hire	---	223,287	---	267,268
Fertilizer	---	176,923	---	92,619

Source: 1964 U.S. Census of Agriculture, Volume 1, Part 18, Published 1967.

individual indicators were considered and the usable ones were selected for criteria in determining trends of growth. These indicators were: population, employment, "Effective Buying Income," taxable sales, retail trade, persons per dwelling unit, dwelling vacancy rate, building permits, school enrollment, and utilities (Telephone and electricity). These individual indicators are listed in the following tables and discussed on the following pages.

### Population

The 1968 survey indicated a study area population of 45,665 for Bismarck-Mandan with 44,603 within the cities limits. This had changed from 38,195 population for the two cities in 1960.

Table 3 gives the 1968 populations for Bismarck-Mandan, depicting a growth of 22% and 4% respectively, since 1960. Bismarck's special censuses of 1967 and 1969 yielded 33,134 and 34,328, respectively, according to the U.S. Census Bureau. The 1970 preliminary census figures recently released lists Bismarck with a population of 34,703 and Mandan with a population of 11,025.

Table 3

#### 1968 POPULATION CHARACTERISTICS AND AREA

##### Bismarck-Mandan Urban Area Transportation Study

	Bismarck-Burleigh	Mandan-Morton	Total
<b>Area in Square Mi.</b>			
Study Area	40.330 Sq. Mi.	22.766 Sq. Mi.	63.096 Sq. Mi.
County	1,648 Sq. Mi.	1,933 Sq. Mi.	3,581 Sq. Mi.
<b>Total Population</b>			
City	33,748	10,855	44,603
Study Area	34,265	11,400	45,665
County <u>1/</u>	36,900	20,400	57,300
<b>Employment</b>			
City and City Based	12,979	2,387	15,366
Study Area	13,294	3,345	16,639

1/ Bureau of the Census Population Estimates (for July 1, 1966), Series P. 25, No. 404, Sept. 27, 1968.

Source: Bismarck-Mandan Urban Area Transportation Study (fall, 1968).

Table 4

POPULATION PERCENTAGE DISTRIBUTION BY AGE  
Bismarck-Mandan Urban Area Transportation Study

Age Group	Bismarck		Mandan	
	1960 1/	1968 2/	1960 1/	1968 2/
Under 5 years	14.0%	10.4%	15.2%	11.3%
5 - 9	11.9	12.7	13.2	12.4
10 - 14	9.2	11.2	10.1	12.9
15 - 19	7.3	10.0	7.6	9.6
20 - 24	6.8	6.7	5.5	6.1
25 - 34	14.8	13.4	13.8	11.1
35 - 44	12.0	12.0	11.6	12.8
45 - 54	9.9	9.4	8.9	9.0
55 - 64	6.8	7.7	7.0	7.0
65 and over	7.3	6.5	7.1	7.8
	100.0%	100.0%	100.0%	100.0%

1/ North Dakota General Population Characteristics, Bureau of the Census, 1960, PC (1) 36-39, table 20.

2/ Bismarck-Mandan Urban Area Transportation Study.

Table 4 refers to 1960 population data which includes those in group quarters in the age distribution breakdown, whereas the 1968 figures do not include those in group quarters. This difference is not significant because of the nominal percent in group quarters. The group quarters data includes those residents in nursing homes, school dormitories, and other similar institutional facilities.

The drop in percent of population under 5 years of age from 1960 to 1968 is at least partly due to the rapidly declining birth rate in the 60's. Along the same line of reasoning, the high birth rate of the 50's tends to cause the increase of population in the 10-19 age group from 1960 to 1968.

## Employment

Employment is broken into three common categories in this report; namely primary, secondary, and agriculture industries. Primary industries include manufacturing, construction, and mining. These are considered primary by function, because they are more fundamental in their production. Secondary industries include businesses which perform a service type job rather than prepare a tangible good. Agriculture is separated from the other two for easier comparison to available data from other sources. Employment figures by different types of industry are found in Table 5.

The ratio of Mandan-side employment to population is 29%, whereas the ratio of Bismarck-side employment to population is 38%. This does not mean that Mandan definitely has a lower rate of employed residents, but instead, there is a possibility that a significant number of Mandan residents are Bismarck employees.

Secondary Industries Employment--The secondary industries of services; government; retail trade; transportation, communication, and utilities; finance, insurance, and real estate; and wholesale trade provide 84% of the employment in the Bismarck-Mandan study area. This helps in demonstrating that the study area has been developed with industries which satisfy service-type needs rather than produce manufactured goods. Therefore, this study area is very dependent on other areas which provide raw materials, such as agricultural products, or produce manufactured goods.

Many of the large metropolitan areas in the U. S. have numerous employers with large manufacturing enterprises. These go along with the service-type secondary industries and help the area to be more independent economically. The producers of the goods can hire large numbers of employees locally and sell the products at distant points, but service industries can not do this as readily. The services must be rendered in a relatively small area, therefore places like Bismarck-Mandan are definitely limited in their employment, as long as secondary industries are the principle source of employment.

The secondary industries of Bismarck and Mandan include 11,578 and 2,412 employees, respectively, and the employment totals for the two cities are 13,294 and 3,345, respectively. Types of employment are categorized in Table 5.

Services include 3,375 employees in Bismarck and 568 in Mandan. Services in Bismarck account for 25.4% of the total employment while in Mandan, services account for 17% of the total employment. Three-fourths of employment in Bismarck-Mandan Services is in: Hotels-motels, nursing homes, doctors clinics, hospitals, and non-profit membership organizations. In addition to the previously mentioned services, there are: personal services, automobile repair and services, legal services, amusement and recreation, etc. These services have been growing rapidly around the nation and in Bismarck-Mandan.

Table 5

## 1968 STUDY AREA EMPLOYMENT BY INDUSTRY

## Bismarck-Mandan Urban Area Transportation Study

Industrial Classification	Study Area		
	Bismarck	Mandan	Total
Services	3,375	568	3,943
Government	3,278	445	3,723
Retail Trade	2,475	820	3,295
Transp. Comm. Utilities	952	424	1,376
Finance Ins. & Real Estate	735	95	830
Wholesale Trade	763	60	823
Total Secondary Industries	11,578	2,412	13,990
Manufacturing	829	671	1,500
Construction	782	184	966
Mining	45	10	55
Total Primary Industries	1,656	865	2,521
Agricultural Industries	60	68	128
All Industries	13,294	3,345	16,639

Source: Bismarck-Mandan Urban Area Transportation Study.

Government employment has grown rapidly to 3,278 in Bismarck and less rapidly in Mandan to 445. This is similar to the rate of growth of government in the nation. There are many small government agencies, but the main areas are: federal and state agencies, county government, City Hall, public schools, and a junior college.

Retail trade in Mandan includes 820 employees and Bismarck has 2,475. Wholesale trade employment totals for Mandan and Bismarck are 60 and 763, respectively.

The Bismarck transportation, communication, utilities industry has grown slightly to 952 employees, but Mandan fluctuates around 424. This T.C.U. includes: railroads, taxis, truckers, airlines, telephone-telegraph, natural gas and electric utilities, radio and TV.

Finance, Insurance, and Real Estate with 735 and 95 employees in Bismarck and Mandan, respectively, make up the remainder of the employment categorized under Secondary Industries.

Primary Industries Employment-- The primary industries with 1,656 employees in Bismarck and 865 in Mandan are not as significant as the secondary industries with 11,578 and 2,412 employment, respectively, for Bismarck and Mandan. Mandan's involvement in primary industries, although small, involves twice as large a percent of total employment as does Bismarck. These primary industries include: manufacturing, construction and mining.

Manufacturing with 671 employees in Mandan is second only to trade, but Bismarck's 829 employees is less significant as a percent of its total. Mandan and Bismarck manufacturing has been growing at a considerable rate, but if conditions were to change, then this industry could become a leader which the cities need for unprecedented growth. Manufacturing includes: dairies, bakeries, printers, read-mix concrete, machinery production, and an oil refinery.

Construction in Bismarck with 782 employees is similar in share of total employment to 184 employees in Mandan, but Mandan has had a considerable decline while Bismarck has been expanding. Construction includes building contractors, general contractors other than buildings, and special trade contractors.

The mining industry with 45 employees in Bismarck and 10 in Mandan is not of significant importance, but it does provide employment in two coal companies and a few oil drilling and exploration companies.

Agriculture Industries Employment--The agricultural services industry with 68 employees in Mandan and 60 in Bismarck has a negligible effect on the economy. This category includes crop sprayers, veterinarians, hatcheries, livestock auctions, and lawn service.

#### School Enrollment

The Bismarck and Mandan public school systems increased their public school enrollment from 6,903 to 11,149 for school terms ending in 1960 and 1969, respectively. This indicates a rate of growth which is more than three times as fast as the population growth rate for the same period in Bismarck and Mandan. However, the total increase in pupils is slightly more than half of the total growth in population. This indicates a change in the age groups, such that the percent of people of school age has increased partly because of the high birth rate of the 50's.

Between 1960 and 1969 Bismarck's non-public school enrollment dropped 445 from 2,021 to 1,576 and Mandan's non-public enrollment dropped 261

from 1,065 to 804 during the same period. This 706 drop in non-public enrollment could partially explain the unprecedented growth of public school enrollment in the same period.

The two colleges in and near Bismarck have enjoyed considerable increase in their enrollments in recent years. In the fall of 1960, Bismarck Junior College listed 612 total enrollment while Mary College recorded 74 total enrollment. In the fall of 1969, the enrollment of Bismarck Junior College was 1,398, including full and part time students, while Mary College enrollment reached 525. This is an increase of 2.3 and 7.1 times, respectively, for the two schools from 1960 through 1969.

Table 6

PUBLIC SCHOOL ENROLLMENT HISTORY (1960-1969)

Bismarck-Mandan Urban Area Transportation Study

School Year	BISMARCK			MANDAN			Final Total
	Grades		Total	Grades		Total	
	K-8	9-12			K-8		9-12
1950-60	3,730	1,319	5,049	1,122	732	1,854	6,903
1960-61	3,949	1,435	5,384	1,113	752	1,865	7,249
1961-62	3,995	1,551	5,546	1,134	841	1,975	7,521
1962-63	4,291	1,655	5,946	1,245	893	2,138	8,084
1963-64	4,543	1,750	6,293	1,319	916	2,235	8,528
1964-65	4,724	1,867	6,591	1,388	979	2,367	8,958
1965-66	5,042	1,929	6,971	1,515	1,019	2,534	9,505
1966-67	5,305	2,123	7,428	1,808	1,083	2,891	10,319
1967-68	5,704	2,250	7,954	1,559	1,130	2,689	10,643
1968-69	5,929	2,386	8,315	1,707	1,127	2,834	11,149

Sources: Office of Superintendent of Schools in each respective city.

Table 7

## PUBLIC AND NON-PUBLIC SCHOOL ENROLLMENT FOR 1969

## Bismarck-Mandan Urban Area Transportation Study

	BISMARCK			MANDAN		
	Schools	Full Time Teachers	Enrollment	Schools	Full Time Teachers	Enrollment
Public Schools						
Elementary (grades K-8)	13	223	5,929	6	67	1,707
Sr. High (grades 9-12)	1	96	2,386	1	47	1,127
Total Public (grades K-12)	14	319	8,315	7	114	2,834
Non-Public Schools						
Elementary (grades K-8)	5	49	1,186	2	36	804
Sr. High (grades 9-12)	1	17	390	0	0	0
Total Non-Public (grades K-12)	6	66	1,576	2	36	804

Source: North Dakota Educational Directory 1968-1969, Department of Public Instruction, Bismarck.

## Sales - Wholesale and Retail

Taxable sales for the Bismarck-Mandan economy are available and usable for comparison with other North Dakota cities. Bismarck is listed as having \$62,342,100 in taxable sales in 1967 and \$57,885,400 in 1966. Mandan had \$15,449,800 taxable sales in 1967 and \$14,630,700 in 1966. (See Table 8). In this type of a comparison, Bismarck rates fourth in taxable sales compared to Fargo, Grand Forks, and Minot. However, taxable sales may not be the best indicator. Taxable sales and total sales are both dependent on reported sales, so some are missed. In addition, there is no way of readily determining wholesale or retail trade from the available figures, since total sales includes both wholesale trade and retail trade.

The combined Bismarck-Mandan retail sales amounted to about 9% of the dollar amount total for North Dakota (See Table 9). In the study area, retail sales provides about 20% of the recorded total employment.

The wholesale trade category includes sales of raw materials farm products such as grain, potatoes, and livestock, in addition to the sales of processed goods by distributors. In 1967, Bismarck and Mandan enjoyed \$87,216,000 and \$18,385,000 in wholesale sales, respectively. This was an increase from \$17,389,000 and \$15,547,000 in 1963 as shown in Table 10.

## Construction and Housing Vacancy

In 1968, there were about 13,760 total dwelling units in Bismarck-Mandan with 555 vacancies or a 4.0% vacancy rate in each city. This compares with Minot's vacancy rates of 2.8% in 1962 and 9.5% in 1966. Minot was enjoying the peak of a boom in 1962 and a slack period in 1966. Therefore, 4% in Bismarck-Mandan seems to be a fairly reasonable rate. The number of persons per dwelling unit in Bismarck and Mandan was about 3.38 in 1968. This compares close to the average of North Dakota cities in 1960.

The number of residential building permits obtained in Bismarck varies from year to year, and 1968 had the highest number in the past seven years. Higher numbers had been recorded eight or more years ago, but 1968 included a larger number of multiple dwelling unit structures which raised the number of total residential units constructed to the highest in 16 years. (See table 11).

The addition of a record dollar amount of commercial construction to a record dollar amount of residential construction in Bismarck brought the total up to \$14.5 million in 1968. This was the highest amount recorded for a city in the three states of Montana, North Dakota, and South Dakota in 1968.

Mandan enjoyed about \$.75 million in total construction in 1968. This was one of the lowest totals recorded in the last ten years.

Table 8

NORTH DAKOTA TAXABLE SALES FOR SELECTED CITIES <sup>1/</sup>

## Bismarck-Mandan Urban Area Transportation Study

City	Total of Taxable Sales and of Purchases on Which Tax was Payable Directly to Tax Department	
	1967 <sup>2/</sup>	1966
Bismarck	62,342,100	57,885,400
Devils Lake	19,101,900	18,674,400
Dickinson	26,906,400	23,002,300
Fargo	132,414,200	120,241,300
Grafton	11,987,500	12,220,800
Grand Forks	76,605,500	76,090,200
Jamestown	28,319,700	26,888,100
Mandan	15,449,800	14,630,700
Minot	75,712,100	72,432,400
Rugby	6,919,700	6,738,300
Southwest Fargo	182,500	182,200
Valley City	16,129,900	15,956,400
Wahpeton	9,730,600	8,591,900
Williston	24,773,700	28,881,200
Total	506,575,600	482,415,600
Bismarck-Mandan % of State Total	15.36	15.03

<sup>1/</sup> All figures indicate quarterly taxes received by tax department rather than when taxes were received by retailers up to three months earlier.

<sup>2/</sup> Motor vehicles were dropped starting April 1, 1967.

Source: North Dakota Sales and Use Tax Statistical Report, North Dakota Tax Department, 1967.

Table 9

## RETAIL PROPRIETORS, FIRMS, AND SALES FOR SELECTED CITIES AND NORTH DAKOTA

## Bismarck-Mandan Urban Area Transportation Study

City	Retail Establishments			
	Number	Sales	Proprietors	Paid Employees, Per. Ending Mar. 12, 1967
North Dakota	7,138	\$940,300,000	6,610	28,821
Fargo	489	124,268,000	389	4,379
Grand Forks	316	91,301,000	222	3,189
Minot	373	81,465,000	317	2,620
Bismarck	284	69,317,000	225	2,062
Mandan	123	17,597,000	120	565

Source: 1967 Census of Business, U.S. Bureau of Census.

Table 10

WHOLESALE TRADE ESTABLISHMENTS, SALES, AND PAYROLL  
FOR SELECTED CITIES AND NORTH DAKOTA

## Bismarck-Mandan Urban Area Transportation Study

	Establishments		Sales (\$1,000)		Payroll Entire Year (\$1,000)	
	1963	1967	1963	1967	1963	1967
	North Dakota Total	2,035	1,995	\$1,220,108	\$1,491,655	\$49,096
Fargo	184	182	309,485	382,349	15,905	20,693
Bismarck	72	72	71,389	87,216	4,212	4,822
Minot	70	74	53,425	51,111	3,315	3,910
Grand Forks	57	70	35,347	60,034	2,363	3,648
Mandan	11	16	15,547	18,385	279	419

Source: 1967 Census of Wholesale Trade, U.S. Bureau of Census.

Table 11

## BISMARCK-MANDAN RESIDENTIAL AND COMMERCIAL

## CONSTRUCTION PERMITS FROM 1959-1968

## Bismarck-Mandan Urban Area Transportation Study

	Mandan			Bismarck		
	Permits		Total Value <u>2/</u>	Permits		Total Value <u>2/</u>
	Res. <u>1/</u> #	Comm. <u>1/</u> #		Res. <u>1/</u> #	Comm. <u>1/</u> #	
1959	55	3	\$1,763,750	343	10	\$7,097,385
1960	59	8	1,083,500	249	22	8,857,987
1961	49	7	822,725	254	11	8,167,659
1962	33	3	2,042,829	223	10	6,369,722
1963	36	5	904,036	224	16	9,057,023
1964	55	3	1,048,765	214	19	8,420,409
1965	43	3	2,128,092	223	19	9,149,494
1966	24	4	722,953	120	16	8,753,971
1967	20	3	787,494	158	28	9,469,924
1968	17	2	759,325	234	17	14,492,719

1/ Residential and commercial permit totals include only permits for completely new structures.

2/ Total dollar values include all construction of completely new structures as well as alternations in the residential, commercial, public, and miscellaneous categories.

Sources: Annual Reports, City Building Inspector in each respective city.

#### Utilities - Telephone and Electricity

The number of telephones in Bismarck-Mandan increased by 50% from 1960 through 1968. This increased more than twice as rapidly as for electricity customers. Perhaps the rapid increase in the number of telephones which is  $2\frac{1}{2}$  times faster than the growth of population indicates an increase in affluence. At any rate there are more phones per person than before, and if people can afford more service, then the

Table 12

NUMBER OF TELEPHONES, TELEPHONE LINES, AND ELECTRICITY CUSTOMERS FOR YEARS 1960-1968

## Bismarck-Mandan Urban Area Transportation Study

Year	BISMARCK			MANDAN		
	# Telephones	# Telephone Lines	Electricity Customers	# Telephones	# Telephone Lines	Electricity Customers
1960	14,371	7,168	7,761	4,291	2,298	2,754
1961	15,122	7,594	7,958	4,408	2,379	2,769
1962	16,112	8,149	8,269	4,583	2,558	2,834
1963	16,866	8,532	8,543	4,697	2,572	2,848
1964	17,561	9,012	8,908	5,101	2,764	2,954
1965	18,530	9,449	9,175	5,325	2,921	3,011
1966	19,812	10,057	9,597	5,480	3,005	3,103
1967	20,878	10,615	9,581	5,657	3,194	3,136
1968	22,237	12,055	N/A	5,897	3,322	N/A

Source: Annual Reports, North Dakota Public Service Commission.

economy is developing as indicated by the rising level of living. In addition to the rising population being an indicator of growth, the increase in the level of living is equally, if not more, important.

## FUTURE DATA

### OUTLOOK

The first part of this report was devoted to describing the present and how it is developed from the past. The last part is intended to show how the future will look based on the continuation of trends of development from the past to the present.

Bismarck has developed into a major trade center which has expanded more rapidly than other major cities in North Dakota. Mandan has developed its wholesale and retail trade facilities slightly in the last 10 years.

Bismarck-Mandan has a large area for its trade industry, and it is served by increasingly better highways. In addition, the State government in Bismarck serves the whole State. These two (trade and government) are high on the list of important industries as are all of the secondary industries. The industries of trade (wholesale and retail), services, and government draw business and income to the study area from outside as well as catering to local residents.

The secondary industries, especially wholesale and retail trade, are limited in their expansion by declining rural population and the gradual decrease in movement of trade activity from rural to urban trade centers. Therefore, secondary industries, which serve customers rather than produce and export products, could not grow beyond the limit of the State's population.

The past growth in North Dakota cities has been largely a result of shifting of rural population to the urban centers and an expected growth in secondary industries rather than a result of expansion of the primary industries which export products. The increase in affluence for individuals in the trade area has helped the out-of-town residents to visit Bismarck-Mandan more often and to buy more expensive, sophisticated goods and services. The local residents' affluence has caused similar results and the total change is more from an increase in services than in goods sales.

Two of the secondary industries in the study area include the two local colleges. Mary College in the services industry and Bismarck Junior College in government will stimulate these two industries. Mary College, which is outside of the study area has a four year liberal arts program which provides a private educational service that is growing and should continue to grow rapidly. Bismarck Junior College is a part of the city school system, and it will probably remain a junior college as it grows.

Manufacturing employment appears to be the main answer to expanding North Dakota employment and population. The whole State, and the Great Plains in general has been at a disadvantage as a choice for the establishment of plants by manufacturers. This area is far removed from large markets, business centers, and experienced labor pools. The distance from large markets and business centers is aggravated by the local high freight rates. The distance from experienced labor pools is aggravated by the low local wages. However, some persons are moving to North Dakota, because they want to escape the problems of the metropolitan areas, so this State may become very desirable.

North Dakota's trend in manufacturing employment has not changed noticeably, but other areas have been experiencing the effect of decentralization in manufacturing. The North Eastern Seaboard manufacturers have begun to establish small plants in the South in rural areas, and the mid-west seems to have some of the same advantages. These rural areas are becoming more attractive to manufacturing industry because of occasional tax incentives, cheap land, cheap labor and other advantages. In addition to these advantages, manufacturers, as well as workers, may decide to avoid the problems of the metropolis or megalopolis. Then, they could exert an expansionary influence on Bismarck-Mandan by causing manufacturing to grow at a rapid rate.

Recent announcements of such plans as Lockheed's sub-assembly plant in Minot and Control Data in South Dakota tend to support the decentralization rumor, and there is a good possibility of expansion of industry to the Great Plains region. However, a cautious appraisal would lead to a forecast of slight expansion in manufacturing.

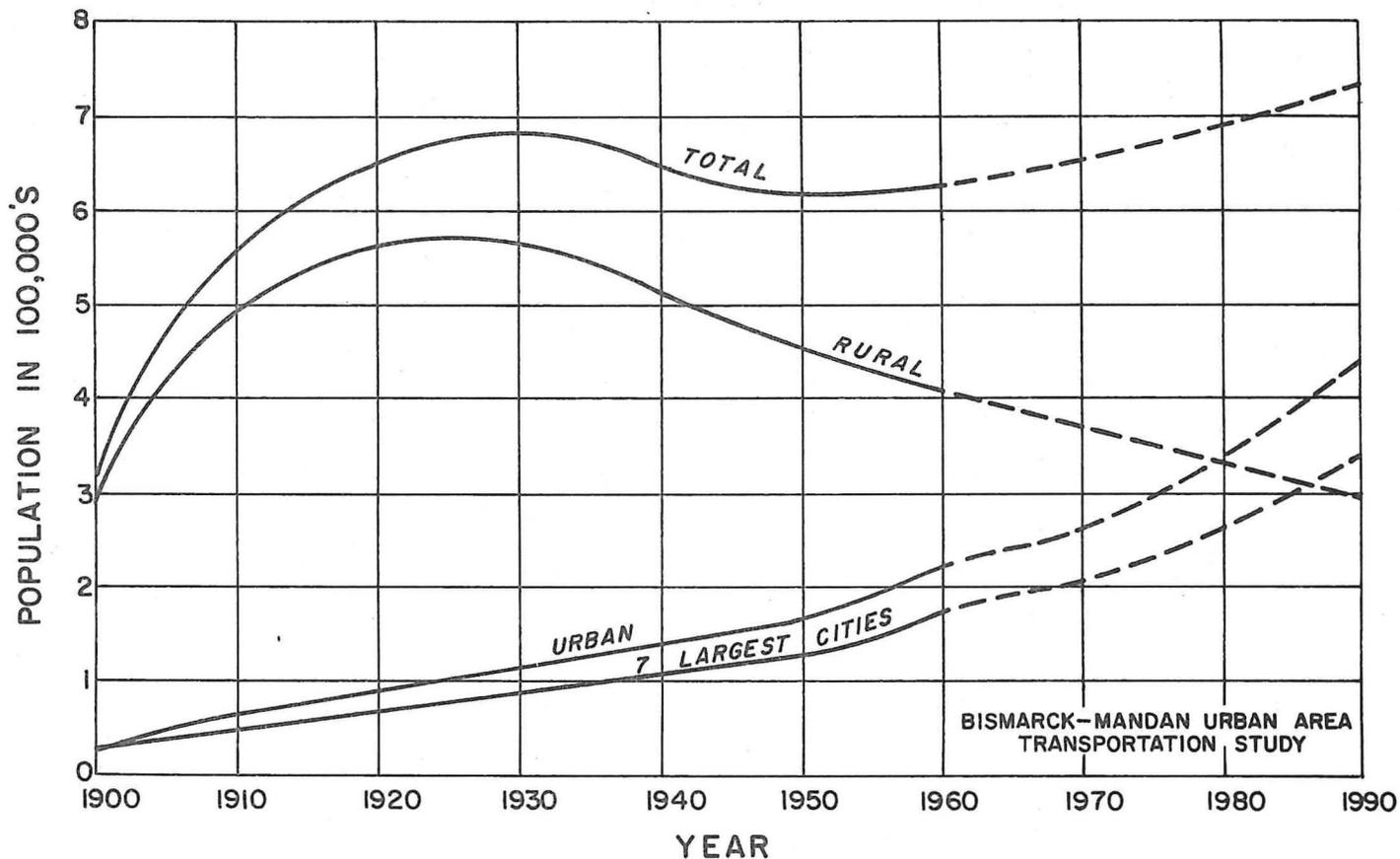
The establishment of a few lignite type electric power generating plants below the Garrison Dam along the Missouri River is encouraging although they are highly mechanized to cut labor costs. Supposedly, other manufacturing enterprises will follow and make use of plentiful power and water.

The Bismarck-Mandan trade area employment trends from 1950 to 1960 are expected to continue to 1975 according to the Upper Midwest Economic Study Report. Agriculture will continue to decline, but more other employment will increase or hold relatively steady. Service and Government will become the largest employment category with a considerable increase over 1960, surpassing agriculture which is presently the largest. Even then, agricultural employment is expected to be about  $\frac{1}{4}$  of total civilian employment in 1975 in the Bismarck-Mandan Trade Area. Trade area employment can be found in Table 13.

#### PROJECTIONS

The anticipated future transportation needs of the Bismarck-Mandan study area are generally based not only on the past transportation needs of the area but also on the transportation needs of an expanded population. Therefore, attempts are made to project future population first.

GRAPH I  
**NORTH DAKOTA POPULATION GROWTH**

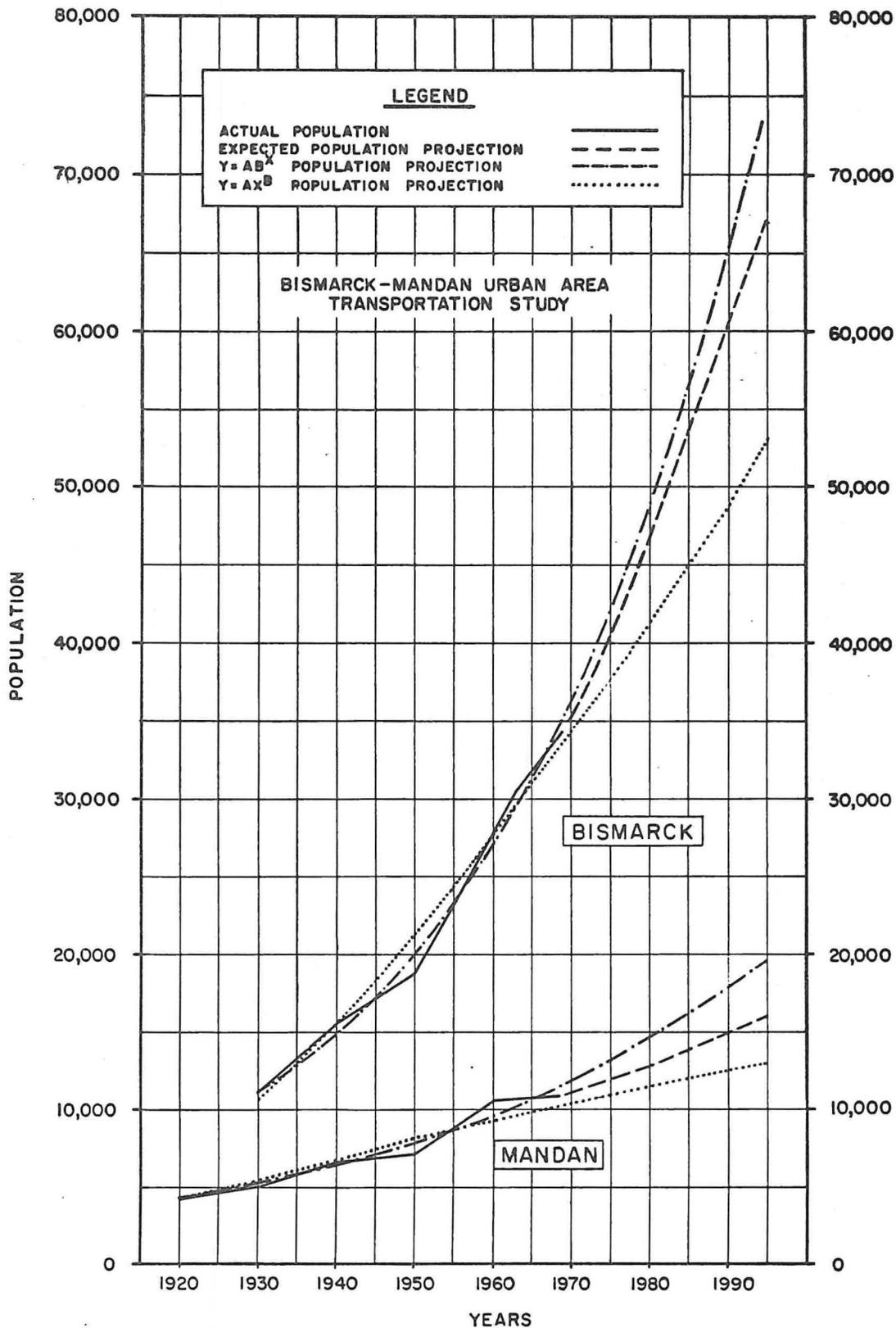


The past trends in population from 1930-1969 in Bismarck and from 1920-1968 in Mandan are sufficiently different in the two cities so that the two need to be handled separately. Bismarck population has grown at a considerably more rapid rate than Mandan, and in addition Bismarck had an appreciably larger population in 1920 and 1930 than Mandan. The different base periods were used in the cities due to an attempt at minimizing the statistical error in each fitting in the past data.

The populations of both Bismarck and Mandan were separately projected to 1995 by the least squares method. Graph 2 shows the projection curves for Bismarck and Mandan population. In the Mandan projections, when  $Y = AB^X$ ,  $Y = (2838)(1.0206)^X$ . Y, the population, is the dependent variable in all of the projections. X is the year with X = 0 at 1900. When  $Y = AX^B$  for Mandan,  $Y = (459.01)(X)^{.73441}$ .

GRAPH 2

# POPULATION TREND AND PROJECTIONS



In Bismarck projections, when  $Y = AB^X$ , then  $Y = (4605) (1.0299)^X$ . When  $Y = AX^B$ , then  $Y = (88.222) (X)^{1.40428}$ . The equation  $Y = AB^X$ , which is similar to the geometric progression method was considered to be overly optimistic, and the  $Y = AX^B$ , which is similar to the arithmetic progression method appeared to be unduly pessimistic. This led to a compromise which yielded probably figures of 16,000 population for Mandan and 67,000 for Bismarck in 1995. Bismarck and Mandan are expected to have 46,500 and 13,000 population, respectively, in 1980. In addition, there will be about 500 people outside the boundaries of each city or 1,000 total population which will be near, like now, but not within the urban limits.

Table 13

BISMARCK-MANDAN TRADE AREA EMPLOYMENT PROJECTIONS 1/

Bismarck-Mandan Urban Area Transportation Study

	1950	1960	1975
Agriculture	17,326	12,600	8,203
Mining and Oil	275	290	282
Manufacturing	830	1,519	1,521
Military	78	69	101
Construction	1,773	1,945	2,157
Retail Trade	4,352	4,984	4,777
Wholesale Trade	1,116	1,238	1,213
Service and Government	9,307	11,682	13,418
Unemployed	1,444	2,181	2,066
Total Nonagricultural Employment	17,731	21,727	23,469
Total Civilian Employment	34,979	34,258	31,571
Civilian Labor Force	36,423	36,439	33,637

1/ Bismarck-Mandan employment data includes 10 counties in UMES Trade Area.  
 Source: Henderson, James M. and Anne O. Krueger, National Growth and Economic Change in the Upper Midwest, PP. 174-175, U. of Minnesota Press, MPLS.

Table 14

## BISMARCK-MANDAN STUDY AREA POPULATION PROJECTIONS

## Bismarck-Mandan Urban Area Transportation Study

Source & City	Actual		Projected			
	1968	1970	1975	1980	1990	1995
Bismarck-Mandan Transportation Study:						
Bismarck	33,743 <sup>8</sup>			46,500		67,000
Mandan	10,855			13,000		16,000
Fringe	<u>1,062</u>			<u>1,000</u>		<u>1,000</u>
Total	45,660 <sup>5</sup>			60,500		84,000
Bureau of Census (Preliminary):						
Bismarck		34,703			58,000	
Mandan		11,025				
Upper Midwest Economic Study:						
Bismarck & Mandan						
High			56,500			
Probable			52,700			
Low			48,900			
Trafton Bean & Associates						
Bismarck						
High				47,200	57,400	
Low				40,500	46,200	

The population projections for 1980 and 1995 provided by the Bismarck-Mandan Urban Area Transportation Study are compared to projections by others in Table 14. The upper Midwest Economic Study Report No. 8 published in September, 1964, which combines Bismarck and Mandan uses three projections for 1975 -- high, low and probable. Trafton Bean and Associates, the consultants for the city of Bismarck, offer high and low figures for both 1980 and 1990 in their 1965 report.

The 1968 ratio of Mandan-side study area employment to population was about 29% compared to about 26% for East Grand Forks, a city of similar size. Bismarck had a ratio of about 38%, very similar to Minot, Grand Forks, and Fargo. These same ratios were applied to their respective 1980 and 1995 populations for Bismarck and Mandan to obtain projected employment. Then these figures were adjusted by totaling projections of individual industry employment. This method is based on the assumption that the present ratio of employment to population will remain the same for 1980 and 1995. Actually, employment determines population, but it is more common and practical to project population first.

Mandan's total employment projections are: 3,920 in 1980 and 4,710 in 1995. The employment growth to 1995 will involve several industries with growth rates which are slower than those expected for the State, which are services 984; Government 750; transportation, communication, utilities 650; and construction 220. The growth of population and the whole economy in Mandan is expected to be slow. Those Mandan industries with employment projections similar to the statewide projections are listed with their 1995 projected employment: trade 910; manufacturing 968; finance, insurance, and real estate 139.

Bismarck's total employment projections are: 17,950 in 1980 and 25,780 by 1995. The employment growth rate in different industries will vary, but the growth rate in each industry is expected to be very similar to that of the statewide projections. The industries and their employment projections for 1995 are services 7,450; Government 7,860; trade 4,720; transportation, communication, utilities 1,600; manufacturing 1,340; construction 1,495; and finance insurance, and real estate 1,160. Mining is expected to have very slight growth in Bismarck, Mandan, and the State.

Due to the type of needs satisfied by Bismarck and Mandan employers and the small population in North Dakota, there is a limited potential for growth here. The potential expansion for services, government, and trade (wholesale and retail) is limited but the business of recreation might boom, and these two cities are situated well between the Oahe and Sakakawea Lakes on the Missouri River, so they could benefit. When these areas of manufacturing and recreation do grow rapidly then the slow growth projections will be overly conservative.

Due to the possibility of drastic changes in trends in growth of population and needs of the study area, periodic updating of this study is necessary. An annual review of population and economic factors is planned for checking against major deviations from past trends. In addition, a complete updating of the Urban Transportation Study is planned for each five years. Therefore, any anticipated needs can be adjusted long before serious problems arise.

Table 15

## BISMARCK-MANDAN STUDY AREA EMPLOYMENT PROJECTIONS

## Bismarck-Mandan Urban Transportation Study

Industry	Actual <sup>1/</sup> 1968						Projected											
	1980			1995			1980			1995			1995					
	Bismarck	Mandan	Total	Bismarck	Mandan	Total	Bismarck	Mandan	Total	Bismarck	Mandan	Total	Bismarck	Mandan	Total			
Services	3,140	24.0%	550	17.1%	3,690	22.7%	4,936	27.5%	849	21.6%	5,785	26.4%	7,450	28.9%	984	20.9%	8,434	27.7%
Government	3,630 <sup>2/</sup>	27.9%	470 <sup>2/</sup>	14.6%	4,100 <sup>2/</sup>	25.2%	5,026	28.0%	600	15.3%	5,626	25.7%	7,860	30.5%	750	15.9%	8,610	28.2%
Trade (Wholesale and Retail)	3,060	23.4%	740	23.0%	3,800	23.3%	3,734	20.8%	800	20.4%	4,534	20.7%	4,720	18.3%	910	19.3%	5,630	18.5%
T. C. U.	880	6.7%	540 <sup>3/</sup>	16.8%	1,420	8.7%	1,167	6.5%	600	15.3%	1,767	8.1%	1,600	6.2%	650	13.8%	2,250	7.4%
Manufacturing	810	6.2%	610	18.9%	1,420	8.7%	1,023	5.7%	708	18.1%	1,731	8.0%	1,340	5.2%	968	20.5%	2,308	7.6%
Construction	810	6.2%	150	4.7%	960	5.9%	1,095	6.1%	180	4.6%	1,275	5.8%	1,495	5.8%	220	4.7%	1,715	5.6%
Finance, Insurance and Real Estate	630	4.8%	80	2.5%	710	4.4%	844	4.7%	106	2.7%	950	4.4%	1,160	4.5%	139	3.0%	1,299	4.2%
Mining	40	0.3%	10	0.3%	50	0.3%	55	0.3%	10	0.3%	65	0.3%	75	0.3%	20	0.4%	95	0.3%
Total Non Agricultural	13,000	99.5%	3,150	97.9%	16,150	99.2%	17,879	99.6%	3,853	98.3%	21,733	99.4%	25,700	99.7%	4,641	98.5%	30,341	99.5%
Agriculture	60	0.5%	68	2.1%	128	0.8%	70	0.4%	67	1.7%	137	0.6%	80	0.3%	69	1.5%	149	0.5%
Total Employment	13,060		3,218		16,278		17,950		3,920		21,870		25,780		4,710		30,490	

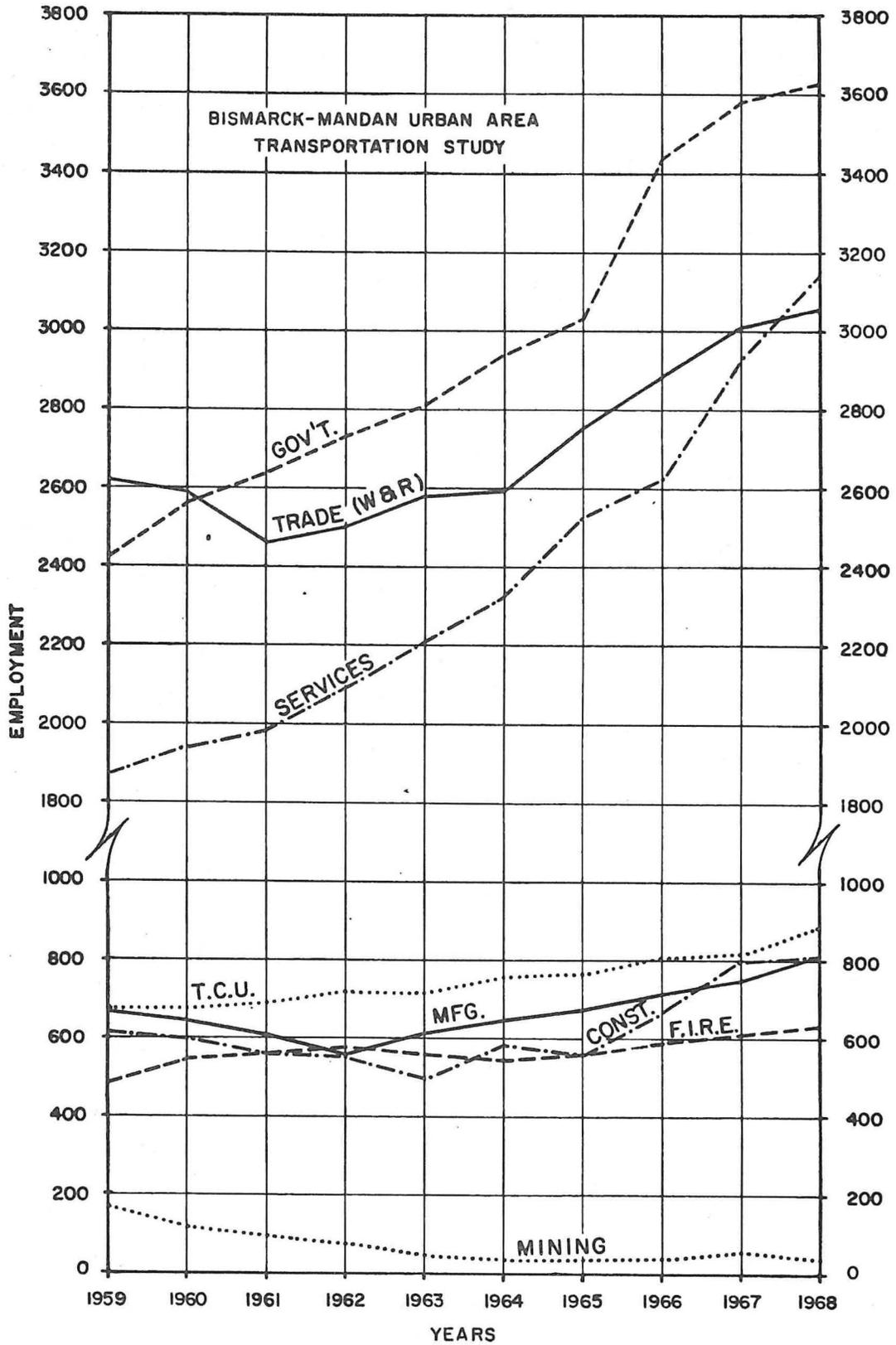
<sup>1/</sup> These employment figures by industry are annual averages and were obtained from the North Dakota State Employment Security Bureau. All of those with proprietor type operations indicate lower employment than in the survey results in Table 5 and this is due to Table 5 inclusion of self-employed persons who are not included in the above 1968 data.

<sup>2/</sup> This Government employment was obtained from the North Dakota Employment Security Bureau and includes a large number of employees who do not actually work in Bismarck and Mandan although they are paid from an office in the city.

<sup>3/</sup> The Transportation Communication and Utilities data total includes a Montana-Dakota Utilities power plant which is presently outside the Bismarck-Mandan Study Area, and the Northern Pacific is credited with having some employees who don't work in Mandan.

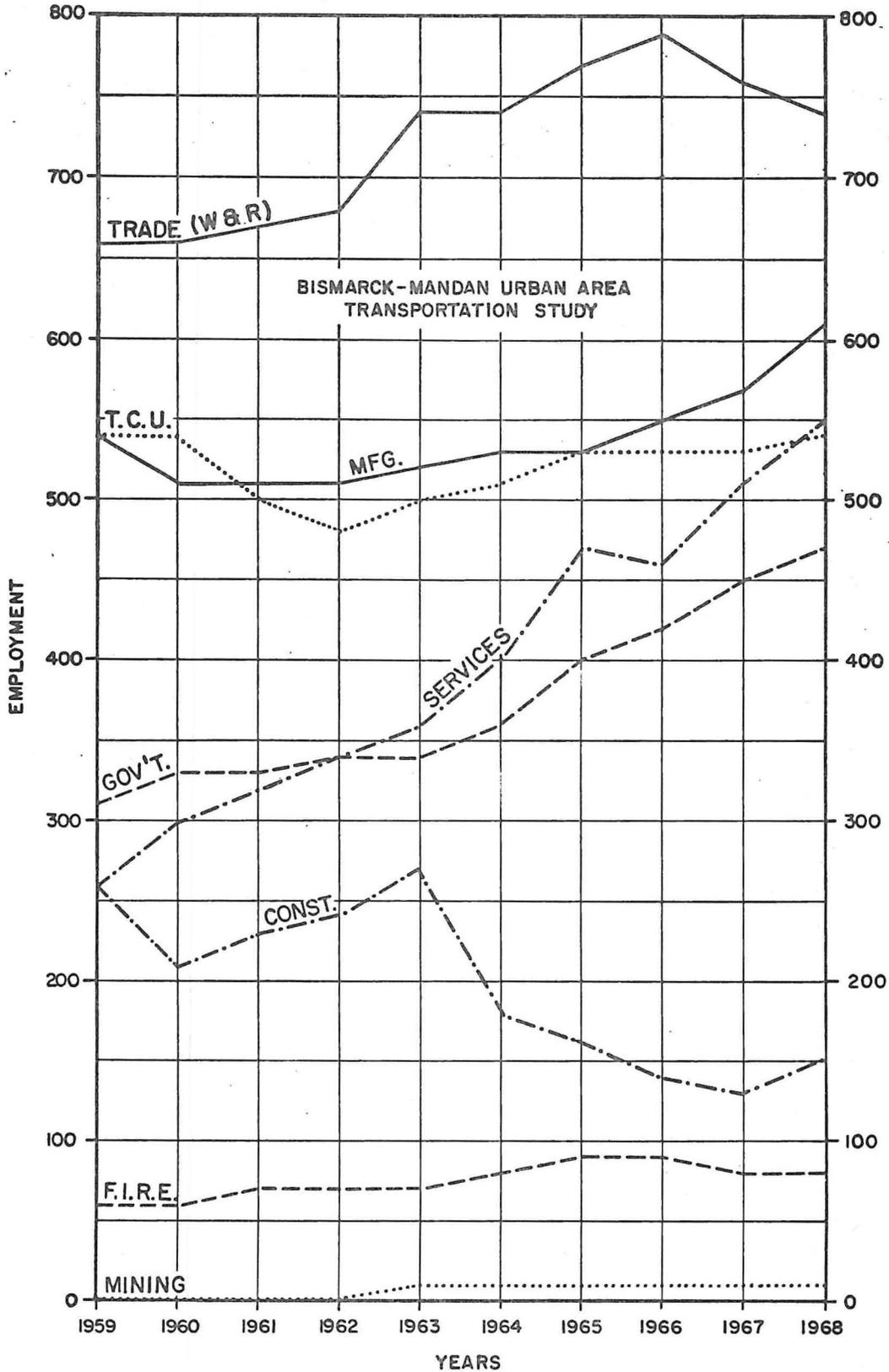
GRAPH 3

# BISMARCK EMPLOYMENT TRENDS



GRAPH 4

# MANDAN EMPLOYMENT TRENDS



A P P E N D I X

TABLE A-1  
BISMARCK-MANDAN 1968 POPULATION AND EMPLOYMENT  
BY ASSIGNMENT ZONE

Assignment Zone	Population	Employment	Assignment Zone	Population	Employment
Bismarck Side					
001	21.2	537	041	675.0	85
002	31.2	149	042	275.4	5
003	349.9	742	043	0.0	0
004	0.0	1,423	044	0.0	0
005	84.8	913	045	583.0	19
006	37.1	204	046	0.0	53
007	53.0	268	047	239.7	43
008	37.1	583	048	1,876.8	47
009	47.7	454	049	0.0	7
010	53.0	403	050	1,320.8	12
011	0.0	123	051	140.4	151
012	0.0	187	052	0.0	762
013	0.0	167	053	0.0	375
014	213.2	27	054	0.0	108
015	473.2	12	055	1,746.7	172
016	234.0	21	056	1,805.4	89
017	208.0	39	057	749.7	26
018	457.6	31	058	923.1	11
019	27.0	595	059	785.4	36
020	0.0	86	060	285.6	98
021	185.0	96	061	85.0	212
022	96.9	70	062	1,045.0	107
023	0.0	0	063	435.0	0
024	0.0	68	064	0.0	62
025	117.3	51	065	57.2	16
026	610.5	143	066	691.6	0
027	632.5	141	067	0.0	0
028	448.8	15	068	0.0	20
029	586.5	61	069	0.0	0
030	530.4	43	070	0.0	0
031	1,008.8	52	071	0.0	0
032	364.0	74	072	65.0	0
033	748.8	114	073	0.0	68
034	1,657.5	72	074	136.7	3
035	1,514.7	47	075	44.9	77
036	214.2	6	076	0.0	0
037	520.2	88	077	102.0	107
038	0.0	116	078	20.4	25
039	0.0	289	079	0.0	0
040	210.0	137	080	587.6	20

TABLE A-1 (Continued)

Assignment Zone	Population	Employment	Assignment Zone	Population	Employment
081	1,274.0	9	126	25.0	1
082	0.0	119	127	0.0	14
083	1,367.6	83	128	0.0	1
084	1,419.6	54	129	0.0	12
085	0.0	8	130	0.0	3
086	41.6	15	131	50.0	4
087	255.0	55	132	0.0	1
088	71.4	9	133	45.0	0
089	25.5	0	134	98.8	0
090	55.3	78	135	145.6	0
091	1,132.2	12	136	10.0	0
092	362.1	247	137	20.0	0
093	0.0	22	138	50.0	0
094	20.4	226	139	0.0	0
095	0.0	429	140	0.0	0
096	0.0	149	141	0.0	0
097	0.0	56	142	0.0	0
098	0.0	0	143	0.0	0
099	0.0	0	144	30.0	0
100	25.0	0	145	0.0	0
101	0.0	0	146	0.0	0
102	0.0	0	147	40.0	0
103	0.0	0	148	25.0	0
104	0.0	5	215	0.0	0
105	15.6	0			
106	0.0	63	Subtotal	34,265.4	13,294
107	0.0	0			
108	0.0	0			
109	156.0	43			
110	0.0	0			
111	0.0	0	Mandan Side		
112	0.0	0	149	98.8	176
113	770.1	83	150	57.2	217
114	158.1	15	151	52.0	302
115	0.0	0	152	20.8	269
116	0.0	13	153	0.0	73
117	0.0	0	154	0.0	53
118	0.0	0	155	0.0	68
119	0.0	0	156	452.4	191
120	0.0	0	157	214.2	21
121	55.0	2	158	484.5	26
122	25.0	0	159	60.0	9
123	0.0	0	160	890.0	53
124	0.0	0	161	1,350.0	153
125	45.0	0	162	413.1	2
			163	488.8	14

TABLE A-1 (Continued)

Assignment Zone	Population	Employment	Assignment Zone	Population	Employment
164	72.8	0	209	35.0	0
165	462.8	27	210	50.0	0
166	0.0	57	211	194.0	106
167	488.4	110	212	0.0	60
168	295.8	7	213	0.0	0
169	0.0	0	214	40.0	10
170	26.0	0	216	0.0	60
171	1,157.7	19	217	20.0	22
172	1,071.0	1	218	0.0	0
173	499.8	9	219	0.0	0
174	110.0	2	220	0.0	0
175	0.0	101	221	0.0	0
176	0.0	0	222	0.0	0
177	10.0	26	223	0.0	0
178	0.0	0	224	0.0	0
179	0.0	0	Subtotal	11,400.2	3,345
180	0.0	17			
181	10.0	0			
182	60.0	0	Total	45,665.6	16,639
183	20.0	0			
184	0.0	0			
185	70.0	0			
186	0.0	237			
187	10.0	0			
188	0.0	41			
189	40.8	1			
190	0.0	2			
191	0.0	3			
192	30.0	137			
193	50.0	103			
194	0.0	97			
195	0.0	29			
196	0.0	49			
197	10.0	0			
198	0.0	0			
199	305.0	0			
200	250.0	249			
201	180.0	13			
202	145.0	3			
203	20.4	3			
204	488.5	19			
205	0.0	18			
206	530.4	80			
207	20.0	0			
208	45.0	0			

Table A-2

PROJECTION OF NORTH DAKOTA NONAGRICULTURAL EMPLOYMENT,  
BY INDUSTRY GROUP (EMPLOYMENT IN 1,000's)

## Bismarck-Mandan Urban Area Transportation Study

Industry	1955	1960	1965	1970	1980	1990
Mining	1.8	1.9	1.9	2.0	2.0	2.1
Construction	7.9	9.8	11.2	11.8	16.2	19.5
Manufacturing	6.5	6.5	8.4	9.4	11.3	13.2
T. C. U. <sup>1/</sup>	13.9	12.7	11.8	10.8	8.7	6.6
Trade	36.8	37.3	40.6	42.5	46.3	50.1
F.I.R.E.	4.8	5.5	6.4	7.2	8.8	10.4
Services	14.9	20.6	24.8	29.8	39.7	49.6
Government	26.4	31.4	40.0	46.8	60.4	74.0
Total Nonagricultural	113.0	125.7	145.1	160.0	193.4	225.5

<sup>1/</sup> This projection of transportation, communications and utilities employment is not useable; the rapid decline has taken place only in railroad employment which is now a minor part of the total. If data has been available to project railroad employment separately different results would have been obtained.

Table A-3

## SELECTED SERVICES

## Bismarck-Mandan Urban Area Transportation Study

	Number of Establishments		Receipts (\$1,000)		Proprietors (\$1,000)	
	1963	1967	1963	1967	1963	1967
North Dakota Total	3,268	3,870	\$72,383	\$89,119	--	3,105
Fargo	306	366	12,807	18,581	--	239
Grand Forks	187	216	9,047	10,712	--	156
Bismarck	168	241	6,613	8,442	--	177
Mandan	58	61	1,074	1,382	--	44

U.S. Bureau of Census: 1967 Census of Selected Services.

KINDS OF BUSINESS COVERED -- The 1967 Census of Selected Services covers the following industries as defined in the Standard Industrial Classification (SIC) Manual: 1/

SIC Code	Title
701,703	Hotels, motels, camps and trailer parks
72	Personal Services
73	Miscellaneous business services
75	Automobile repair, automobile services, and garages
76	Miscellaneous repair services
78	Motion pictures
79	Amusement and recreation services, except motion pictures (excludes nonprofit membership recreational services)

1/ Executive Office of the President, Bureau of the Budget, Standard Industrial Classification Manual, 1967.

