



MINNESOTA
IN
THE EIGHTIES

**Minnesota In The Eighties. . .
Its People And Its Land**

**A report in conjunction with
Minnesota Horizons 1983**

**Prepared by
Division of Planning
Department of Energy, Planning, and Development**

January 1983

FOREWORD

This report has been prepared in conjunction with Minnesota Horizons 1983. Horizons is a presentation to provide the legislature with an opportunity to examine the economic and social changes as we move into the 1980s.

"Minnesota In The Eighties, Its People And Its Land" is a series of "fact sheets" that exhibit the state's human, natural, and physical resources. It contains annotated maps, graphs, and charts that describe the condition of the state's resources in the 1970s which are the basis for projections into the 1980s. The topics include current demographic profiles, the natural resource economic base, and the condition of the urban infrastructure. This overview attempts to quantify those trends that are revealed by current events and to form the basis for policy decisions that will set the course for the future.

This report was prepared by the Division of Planning, Department of Energy, Planning, and Development. In addition to the data provided by the Minnesota State Agencies, a considerable amount of data was provided by the 1980 Census of Population, U.S. Bureau of the Census and the Land Use Change Project funded by the Legislative Commission on Minnesota Resources (LCMR). Graphics were produced at the University of Minnesota Computer Center, Professional Services Division and Graphic Group facility.

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Minnesota In The Eighties

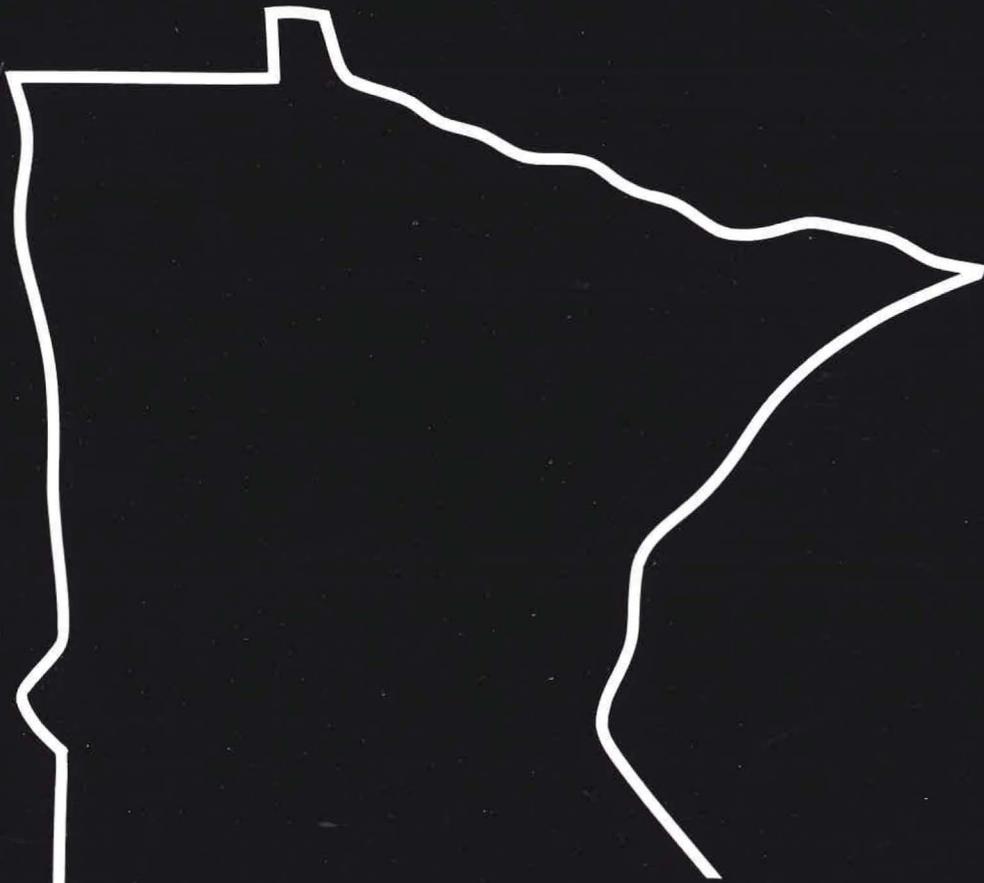
Its People

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MINNESOTA IN THE EIGHTIES . . .

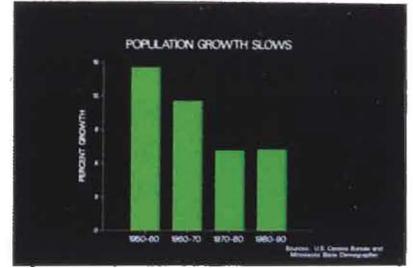


ITS PEOPLE

POPULATION CHANGE

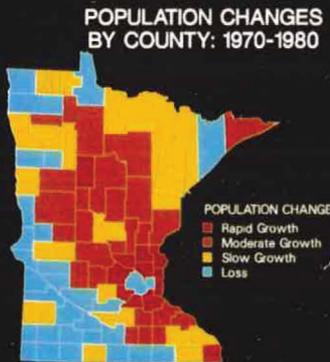


Population growth has slowed but is more widely distributed through the state with fewer counties experiencing loss. Suburbs continue to grow while rural areas grow more rapidly.



POPULATION CHANGE

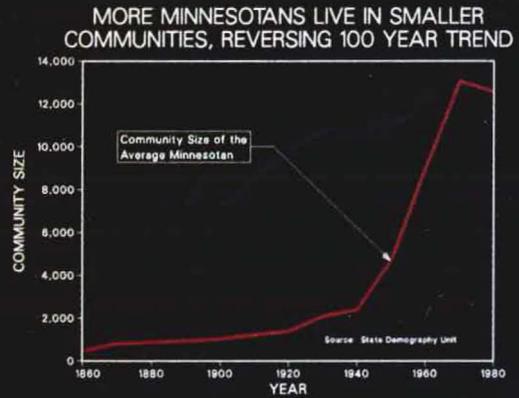
Suburbs and lake areas experience the greatest growth in the 1970s.



Source: 1970, 1980 Census

COMMUNITY SIZE

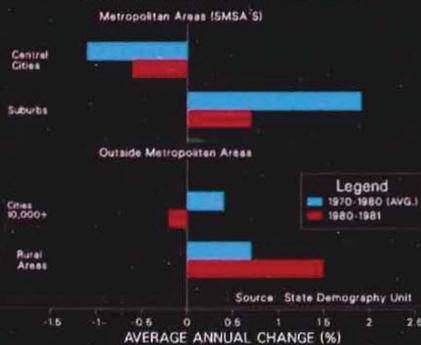
More Minnesotans live in smaller communities reversing a 100-year trend.



RECENT GROWTH

Population growth is concentrated in suburbs and rural areas.

POPULATION GROWTH CONCENTRATED IN SUBURBS AND RURAL AREAS

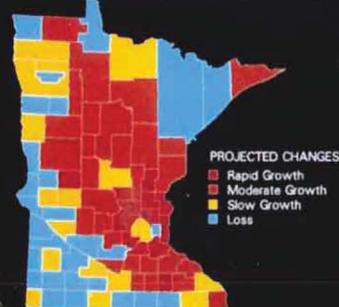


Source: State Demography Unit

PROJECTED GROWTH

Newer suburbs and exurbs will experience strong growth in the 1980s.

PROJECTED POPULATION CHANGES BY COUNTY: 1980-1990

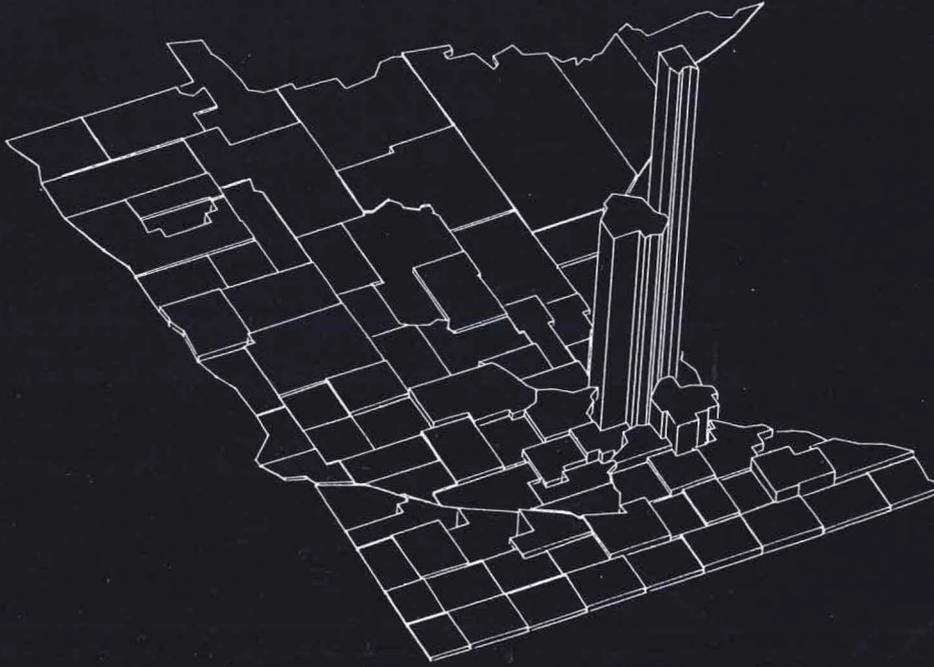


Source: State Demography Unit

POPULATION CHANGE

POPULATION DENSITY POPULATION PER SQUARE KILOMETER

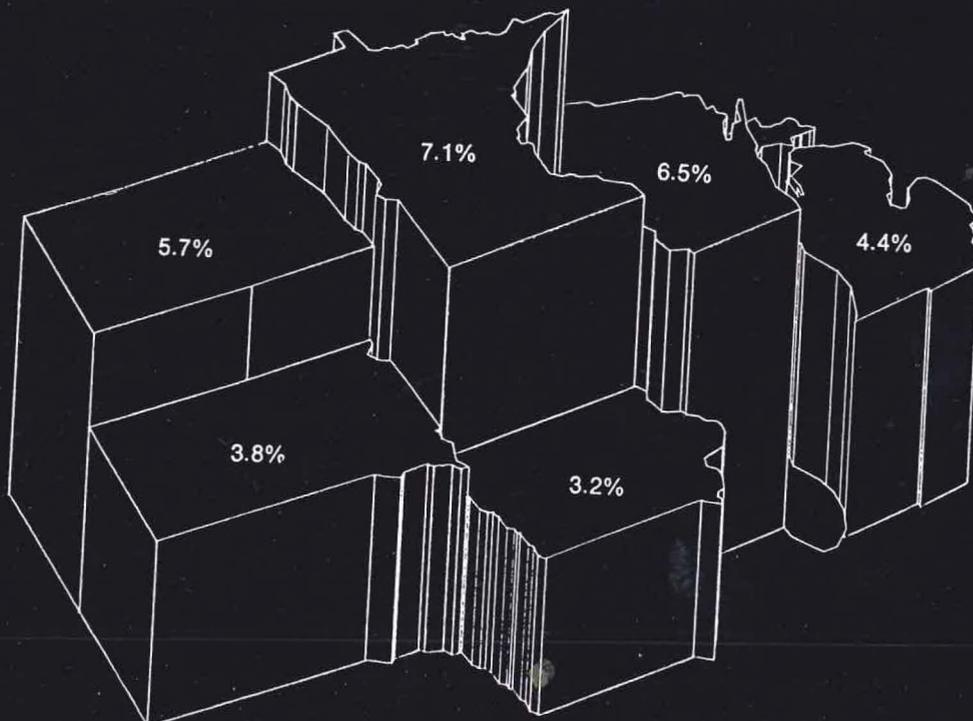
The most densely settled area is in the Metro Region.



Source: 1980 Census

POPULATION CHANGE IN THE UPPER MIDWEST, 1970-1980.

Minnesota leads the Upper Midwest in population growth during the 1970s.

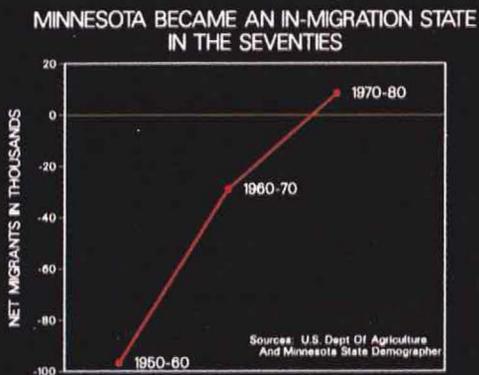


Source: 1980 Census

POPULATION CHANGE

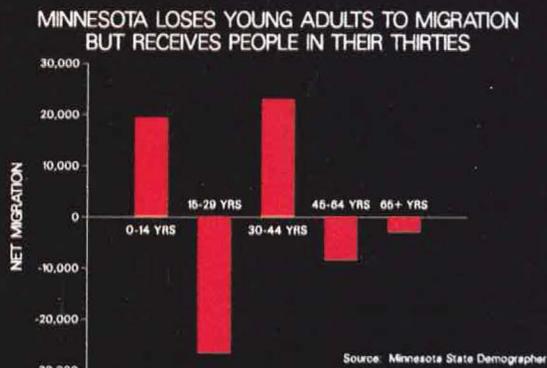
MIGRATION

Minnesota becomes an in-migration state in the 1970s.



MIGRATION BY AGE

Minnesota loses young adults but receives people in their thirties.



MIGRATION 1970-1980

Suburbs, exurbs and lakes areas experience strong in-migration.

POPULATION MIGRATION BY COUNTY: 1970-1980

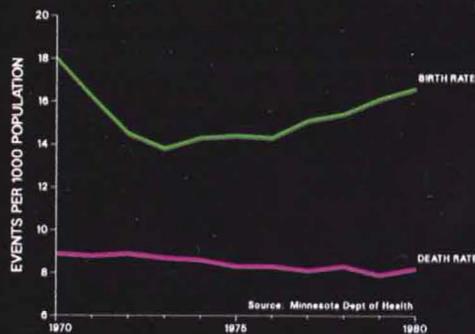


Source: 1970, 1980 Census

BIRTHS AND DEATHS

Birth rate is increasing since its low point in 1973.

BIRTH RATE INCREASING SINCE ITS LOW POINT IN 1973

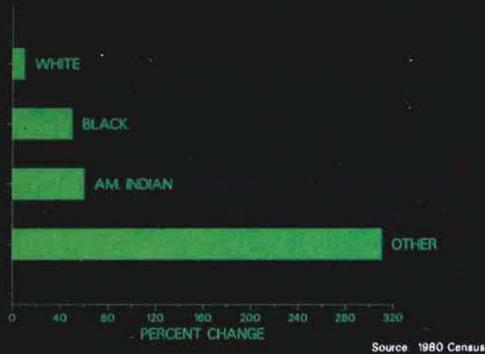


POPULATION CHANGE

GROWTH RATES BY RACE

Large increases in minorities occur between 1970 and 1980.

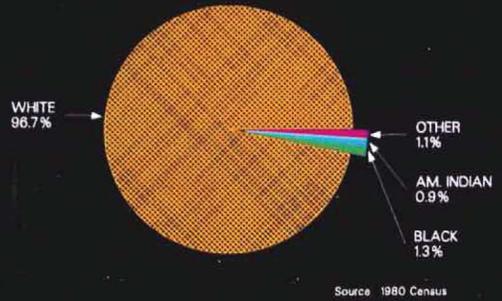
LARGE INCREASES IN MINORITY POPULATIONS BETWEEN 1970 AND 1980



RACE DISTRIBUTION

Minorities are still a small percentage of the population.

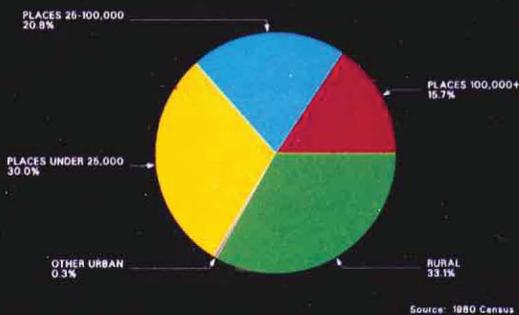
GROWING MINORITY POPULATION IS STILL A SMALL PART OF TOTAL



POPULATION DISTRIBUTION

One-third of Minnesota still lives in rural areas in 1980.

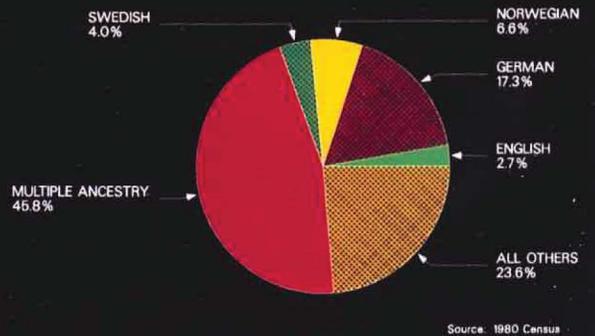
1980 POPULATION BY SIZE OF PLACE



ANCESTRY

German is the largest single ancestry in Minnesota

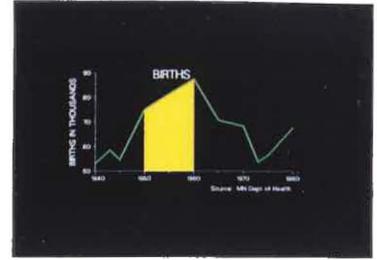
LARGEST GROUP IN MINNESOTA OF SINGLE ANCESTRY IS GERMAN



AGE OF THE POPULATION



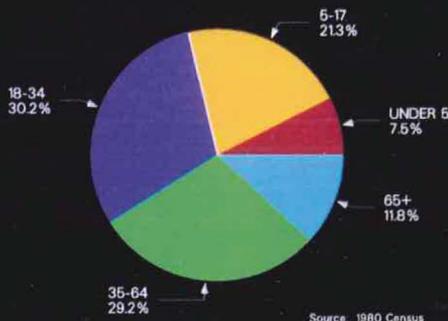
During the 1970s the baby boom reached adulthood creating significant changes in the social and economic characteristics of Minnesota.



AGE DISTRIBUTION

The baby boom includes almost one-third of the total population.

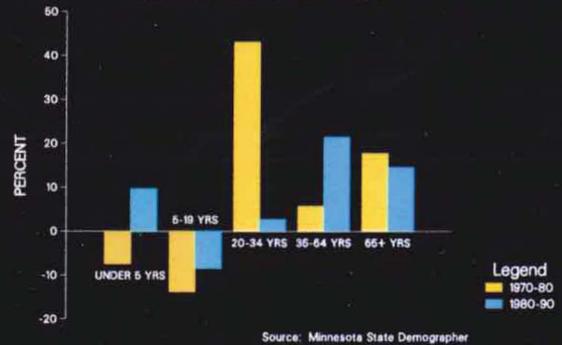
MINNESOTA'S AGE DISTRIBUTION IN 1980



CHANGE BY AGE

The 1970s see big increases in young adults, reflecting the baby boom.

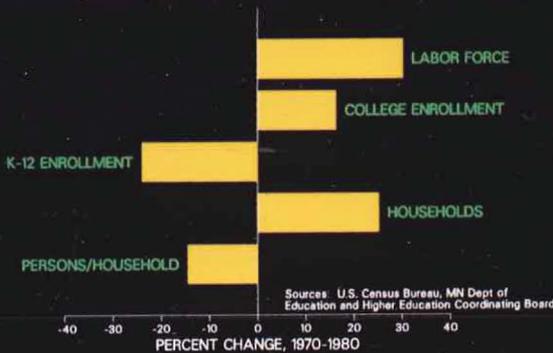
PERCENT CHANGE IN POPULATION BY AGE 1970-1980 AND 1980-1990



SOCIAL EFFECTS

In 1980 the baby boom generation is between 20 and 34 years old.

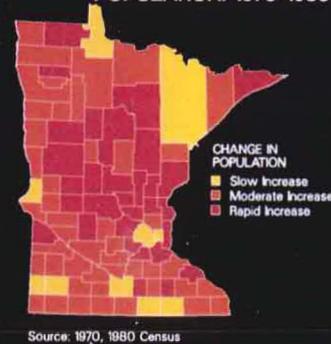
IN 1980 THE BABY BOOM GENERATION IS BETWEEN 20 AND 34 YEARS OLD



CHANGE IN YOUNG ADULTS

Most counties experience rapid increases in young adults during the 1970s.

CHANGE IN 20-34 YEAR OLD POPULATION: 1970-1980

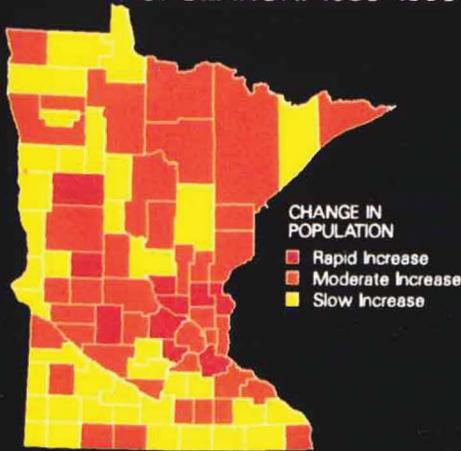


AGE OF THE POPULATION

PROJECTED BABY BOOM

Most counties will experience large increases in persons 30 to 44 years old during the 1980s.

CHANGE IN 30-44 YEAR OLD POPULATION: 1980-1990

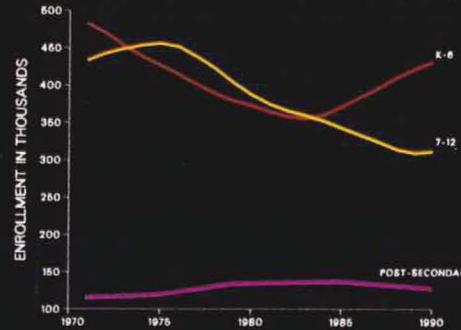


Source: State Demography Unit

SCHOOL ENROLLMENTS

Grades 1-6 will see increased enrollments while post-secondary begin to see declines.

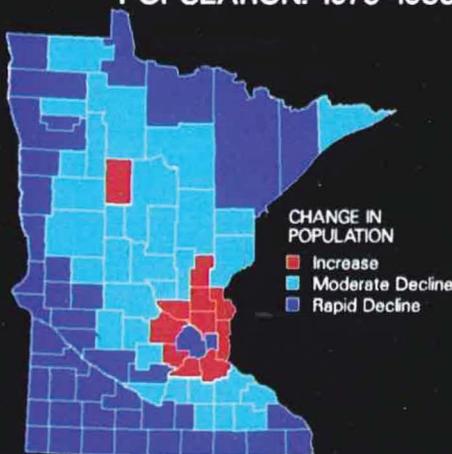
ELEMENTARY ENROLLMENTS TO TURN UP; POST-SECONDARY ENROLLMENTS TO EXPERIENCE DECLINE DURING 1980'S



SCHOOL AGE POPULATION

Most counties experience substantial declines in school age population during the 1970s.

CHANGE IN SCHOOL-AGE POPULATION: 1970-1980

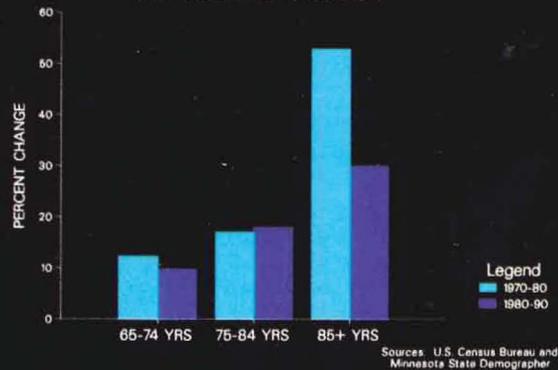


Source: 1970, 1980 Census

CHANGE IN ELDERLY

Biggest changes in older population are among those 85 years and older.

CHANGES IN THE ELDERLY POPULATION 1970-1980 AND 1980-1990



AGE OF THE POPULATION

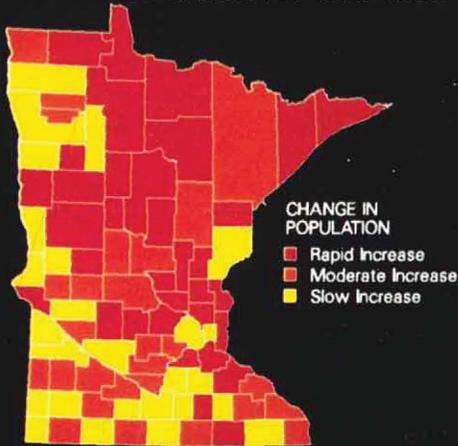
65 AND OVER

Every county increases in older populations during the 1970s.

INCREASED LONGEVITY

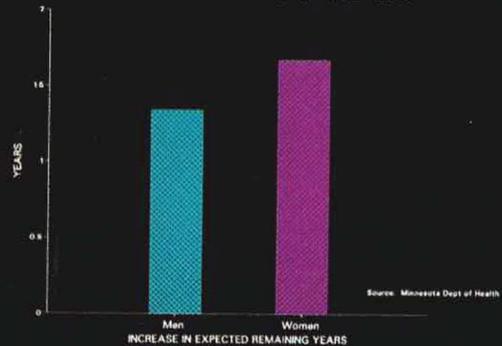
Life span of persons 65 years old increases sharply during the 1970s.

CHANGE IN 65+ POPULATION BY COUNTY: 1970-1980



Source: 1970, 1980 Census

LIFE SPAN OF 65 YEAR OLDS INCREASED SHARPLY BETWEEN 1970 AND 1978



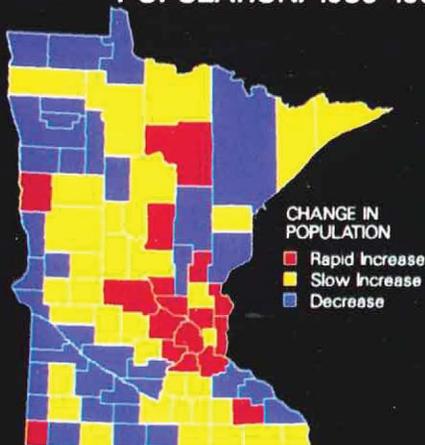
PROJECTED 65-74 YEARS OLD

Suburban counties will see the most rapid increases in persons 65-74 years old during the 1980s.

PROJECTED 75 AND OLDER

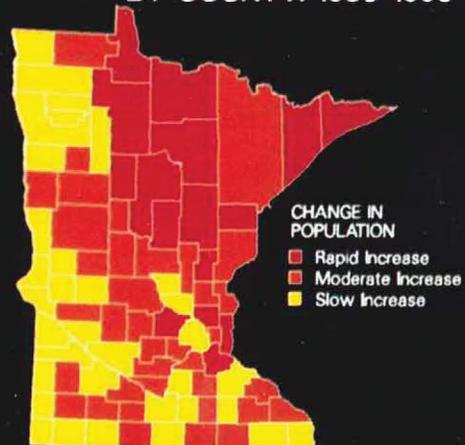
Most counties will see substantial increases in persons 75 and older during the 1980s.

CHANGE IN 65-74 YEAR OLD POPULATION: 1980-1990



Source: State Demography Unit

CHANGE IN 75+ POPULATION BY COUNTY: 1980-1990

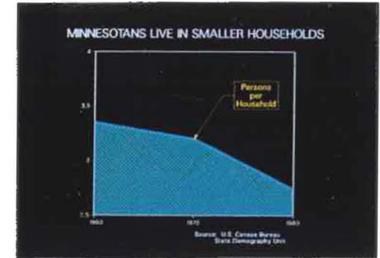


Source: State Demography Unit

SOCIAL CHANGE



The changing age structure coupled with ongoing social change has had major impacts on family structure.



MARITAL STATUS

More persons 15 years and older were single or divorced in 1980.

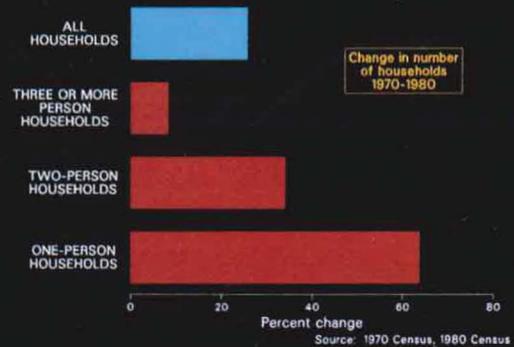
A SMALLER PERCENTAGE OF THE POPULATION IS MARRIED IN 1980 THAN IN 1970



SIZE OF HOUSEHOLD

Largest growth occurs in one-person households during the 1970s.

NUMBER OF SINGLE-PERSON HOUSEHOLDS IS INCREASING RAPIDLY



TYPE OF FAMILY

An increasing number of families are headed by single parents.

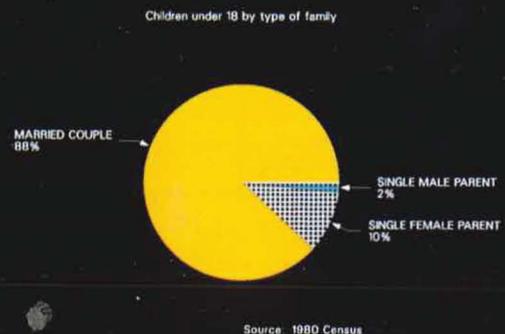
NUMBER OF SINGLE-PARENT FAMILIES IS GROWING RAPIDLY



FAMILIES WITH CHILDREN

Most children live in married couple families.

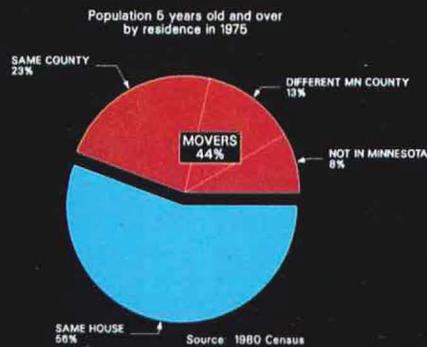
MOST CHILDREN LIVE IN MARRIED COUPLE FAMILIES



RESIDENCE IN 1975

44.4% of persons 5 years and older move between 1975 and 1980.

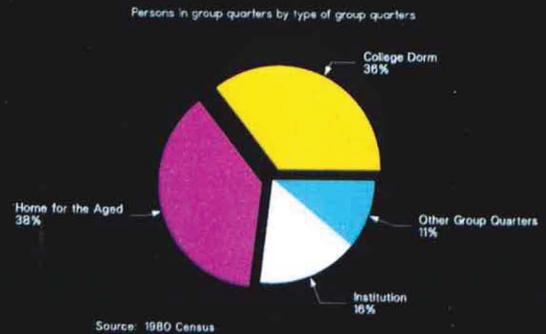
ALMOST HALF THE POPULATION MOVED BETWEEN 1975 AND 1980



GROUP QUARTERS POPULATION

More Minnesotans live in homes for the aged than in college dorms in 1980.

MORE PEOPLE LIVE IN HOMES FOR THE AGED THAN IN COLLEGE DORMS

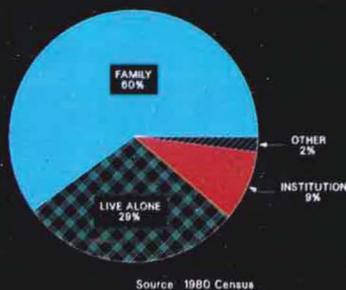


ELDERLY LIVING ARRANGEMENTS

A small percentage of the elderly live in institutions.

A SMALL PERCENTAGE OF THE ELDERLY LIVE IN INSTITUTIONS

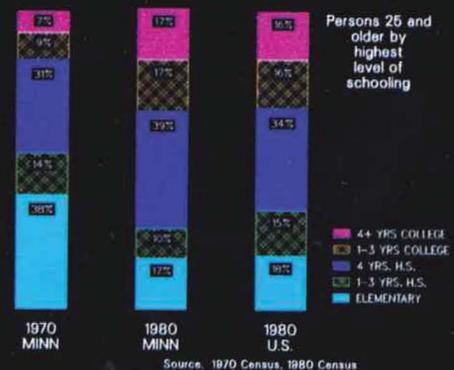
Living arrangements of Minnesotans 65 and older



YEARS OF SCHOOLING

Average education of persons 25 years and older increases in the 1970s and remains above the national average.

MINNESOTANS ARE INCREASINGLY BETTER EDUCATED



LABOR FORCE



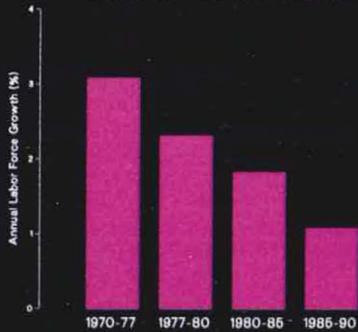
The 1970s saw an unprecedented growth in the labor force as large numbers of the baby boom generation, especially the women, sought employment.



LABOR FORCE GROWTH

Average annual labor force growth will slow by the end of the decade.

LABOR FORCE GROWTH WILL SLOW BY END OF DECADE

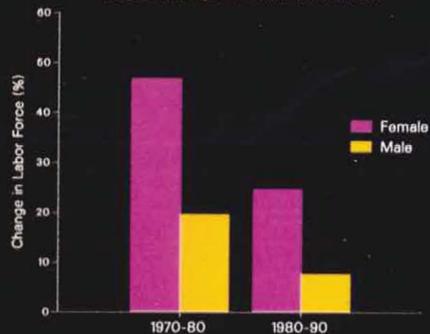


Source: 1980 Census, State Demography Unit

PARTICIPATION BY SEX

Female labor force is growing much faster than male.

FEMALE LABOR FORCE IS GROWING MUCH FASTER THAN MALE

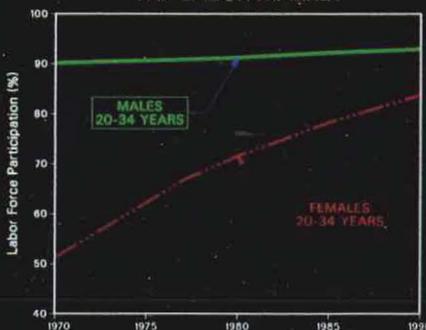


Source: 1980 Census, State Demography Unit

LABOR FORCE PARTICIPATION

More young women enter the labor market.

MORE YOUNG WOMEN ENTER THE LABOR MARKET

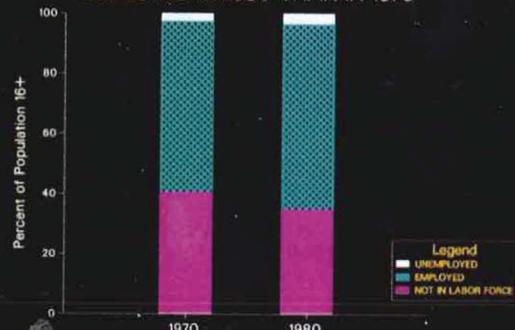


Source: State Demography Unit

LABOR FORCE STATUS

A larger proportion of the population 16 and older is employed in 1980.

MORE OF THE WORKING AGE POPULATION IS EMPLOYED IN 1980 THAN IN 1970

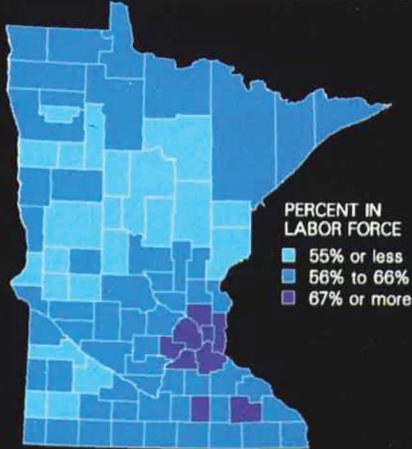


Source: 1970 Census, 1980 Census

LABOR FORCE

PERCENT OF POPULATION IN THE LABOR FORCE 1980

PERCENT OF TOTAL POPULATION IN LABOR FORCE: 1980



Source: 1980 Census

UNEMPLOYMENT BY RACE

Unemployment rates in 1980 are highest among minorities.

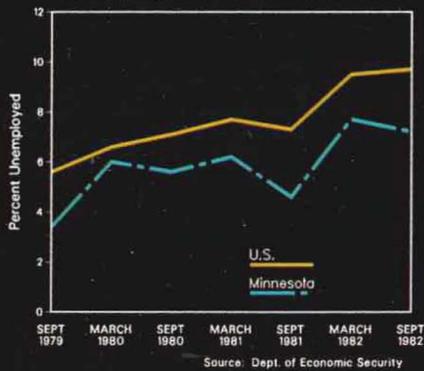
UNEMPLOYMENT IS HIGHEST AMONG MINORITIES



TRENDS IN UNEMPLOYMENT

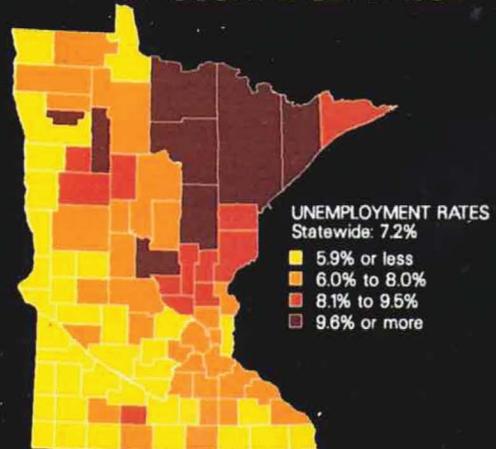
Unemployment rates have increased in Minnesota but still remain below the national average.

MINNESOTA UNEMPLOYMENT RISES, BUT IS STILL BELOW NATIONAL AVERAGE



SEPTEMBER 1982 UNEMPLOYMENT RATES

UNEMPLOYMENT RATES BY COUNTY: SEPT. 1982

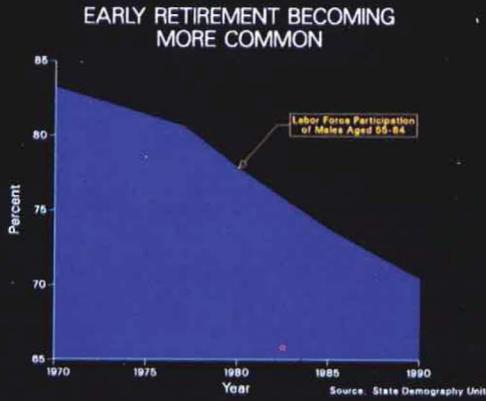


Source: Dept of Economic Security

LABOR FORCE

PARTICIPATION OF OLDER MEN

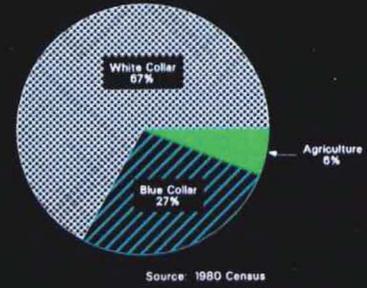
Early retirement is becoming more common.



EMPLOYMENT BY OCCUPATION

Most Minnesotans are employed in white collar jobs.

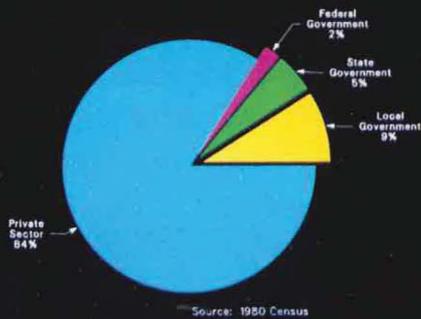
MOST MINNESOTANS EMPLOYED IN WHITE COLLAR JOBS



PUBLIC SECTOR EMPLOYMENT

Sixteen percent of Minnesota workers are employed by government.

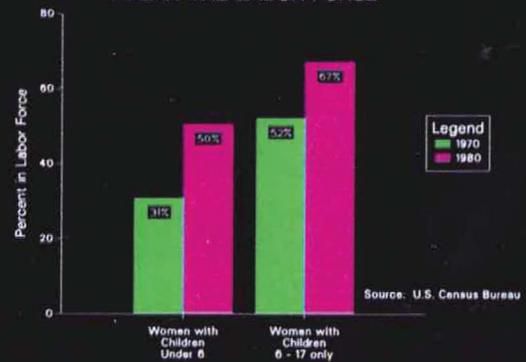
16% OF MINNESOTA WORKERS ARE EMPLOYED BY GOVERNMENT



PARTICIPATION OF MOTHERS

More women with children are in the labor force.

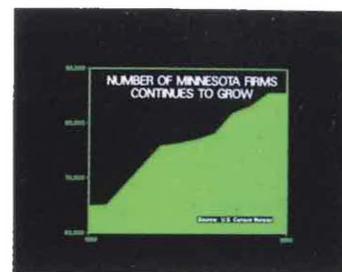
MORE WOMEN WITH CHILDREN ARE IN THE LABOR FORCE



EMPLOYMENT AND INDUSTRY



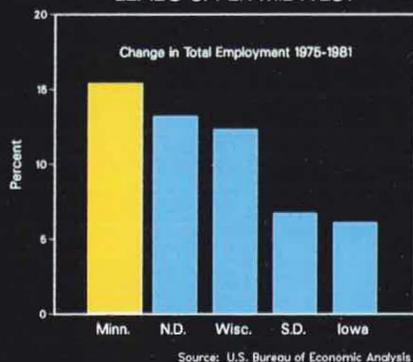
Minnesota has experienced strong growth in employment and number of businesses. Growth is especially strong in service industries.



EMPLOYMENT GROWTH

Minnesota leads the upper midwest in employment growth during 1975-1981.

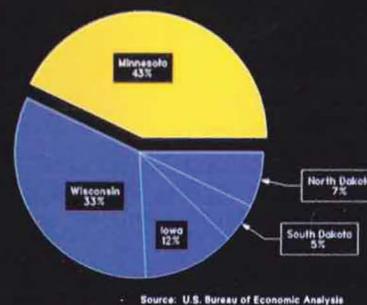
EMPLOYMENT GROWTH IN MINNESOTA LEADS UPPER MIDWEST



JOBS GROWTH 1975-1981

Minnesota accounts for 43% of new jobs in the region.

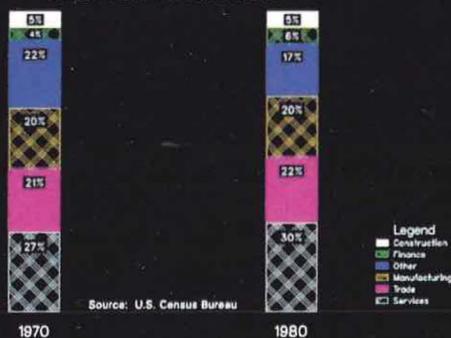
MINNESOTA ACCOUNTS FOR 43% OF NEW REGIONAL JOBS BETWEEN 1975 AND 1981



EMPLOYMENT BY INDUSTRY

Patterns of employment by industry show little change between 1970 and 1980.

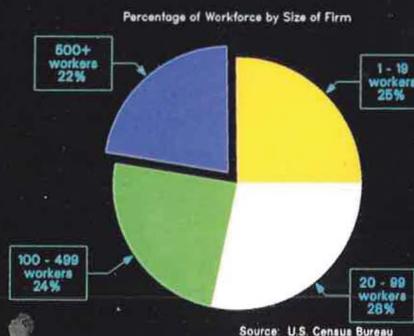
PATTERNS OF EMPLOYMENT BY INDUSTRY SHOW LITTLE CHANGE



WORK FORCE BY FIRM SIZE

Most Minnesotans are employed by small businesses.

MOST MINNESOTANS EMPLOYED BY SMALL BUSINESS

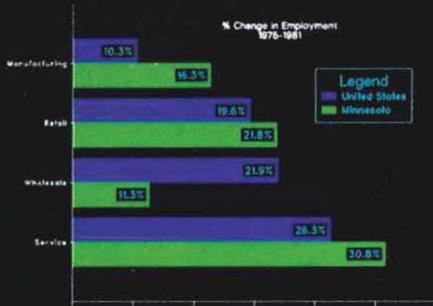


EMPLOYMENT AND INDUSTRY

EMPLOYMENT GROWTH BY SECTOR

The service industry is fastest growing sector between 1975 and 1981.

SERVICE IS FASTEST GROWING SECTOR OF ECONOMY

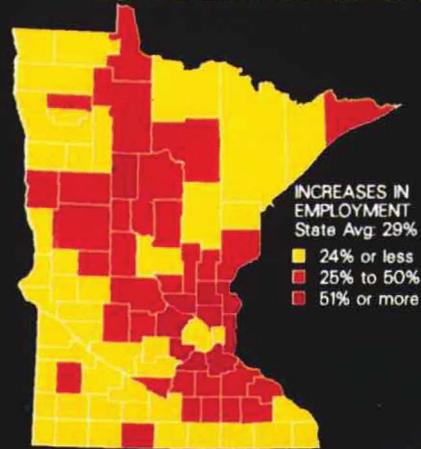


Source: U.S. Bureau of Economic Analysis

DISTRIBUTION OF GROWTH

Most areas of Minnesota experience rapid growth in employment during the 1970s.

INCREASES IN NUMBER OF PEOPLE EMPLOYED: 1970-1980

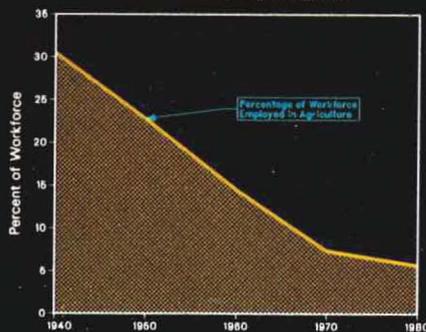


Source: 1970, 1980 Census

EMPLOYMENT IN AGRICULTURE

Agricultural employment continues to decline as a proportion of the total workforce.

AGRICULTURAL EMPLOYMENT CONTINUES TO DECLINE

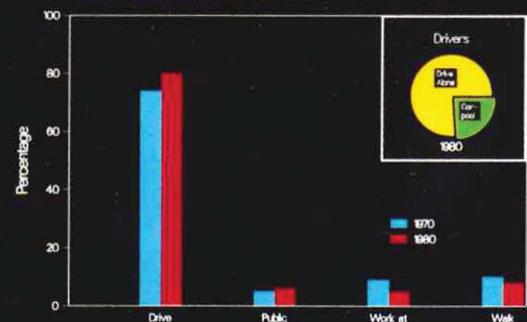


Source: U.S. Census Bureau

COMMUTING TO WORK

More people drive to work than in 1970.

MORE PEOPLE DRIVE TO WORK THAN IN 1970



Source: 1980 Census, 1970 Census

INCOME

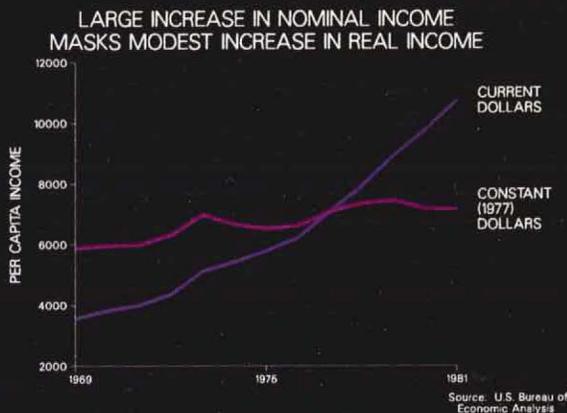


Though money income increases substantially, real income, after adjusting for inflation, rises more slowly. Poverty rates fall but certain segments of the population continue to experience high rates.



CHANGE IN INCOME

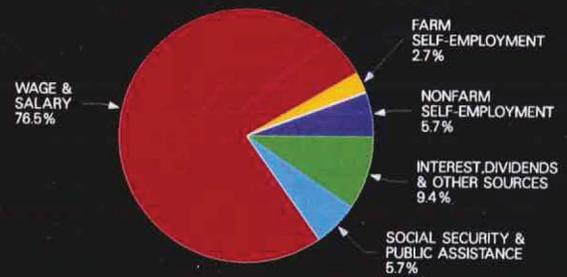
A large increase in nominal income masks a modest increase in real income.



SOURCE OF INCOME

More than three-quarters of household income comes from wages and salaries in 1980.

SOURCES OF HOUSEHOLD INCOME

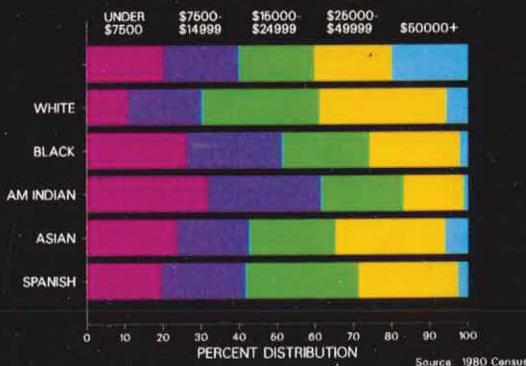


Source: 1980 Census

FAMILY INCOME BY RACE

Minority families are more concentrated in lower incomes in 1980.

FAMILY INCOME DISTRIBUTION BY RACE

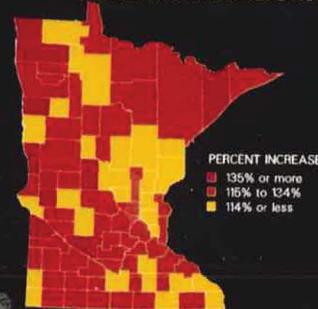


Source: 1980 Census

CHANGE IN FAMILY INCOME

Most rapid growth in median family income, 1970-1980, occurs in selected western counties.

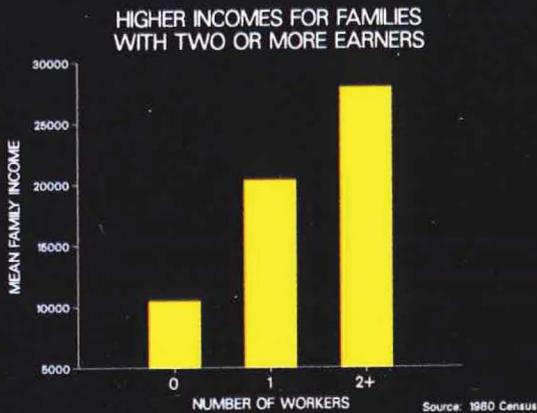
PERCENT INCREASE IN MEDIAN FAMILY INCOME: 1970-1980



Source: 1970, 1980 Census

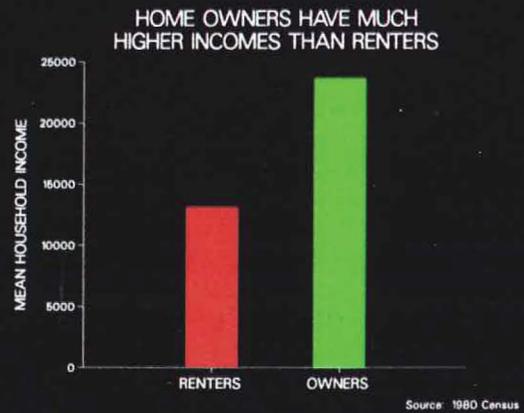
INCOME BY FAMILY SIZE

Families with two or more earners have higher incomes.



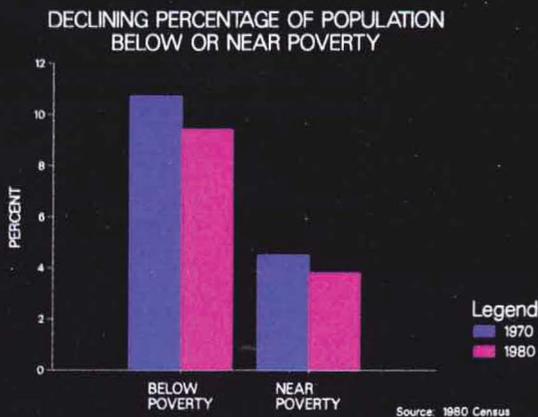
INCOME AND HOUSING

Homeowners have much higher incomes than renters.



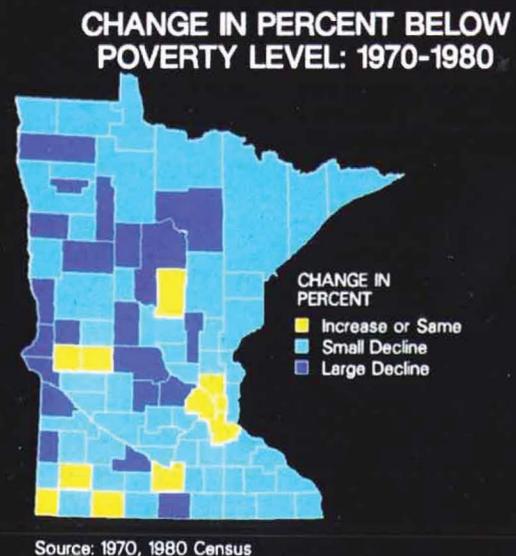
POVERTY RATES

The poverty rate and the near poverty rate (125% of poverty) falls during the 1970s.



CHANGES IN POVERTY

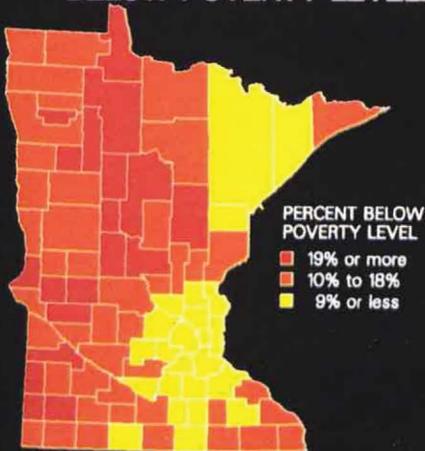
Most counties experience a decline in poverty rates during the 1970s.



POVERTY IN 1980

Some counties in the north central and the southwest still experience high poverty rates.

POPULATION WITH INCOME BELOW POVERTY LEVEL: 1980

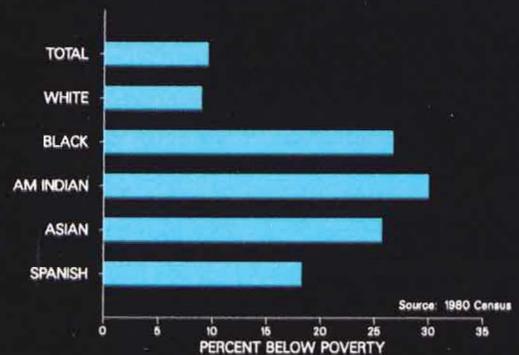


Source: 1980 Census

POVERTY BY RACE

Poverty rates are still much higher for minorities.

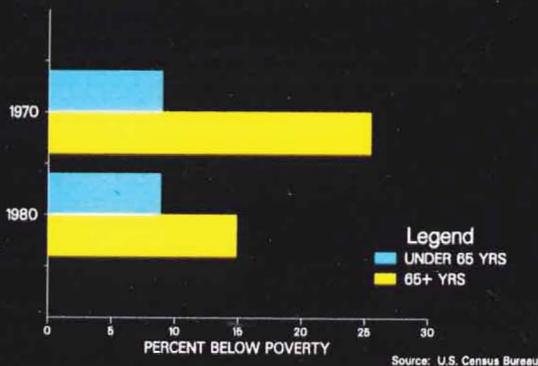
MUCH HIGHER POVERTY RATES FOR MINORITIES



ELDERLY POVERTY

Poverty rate remains higher for the elderly.

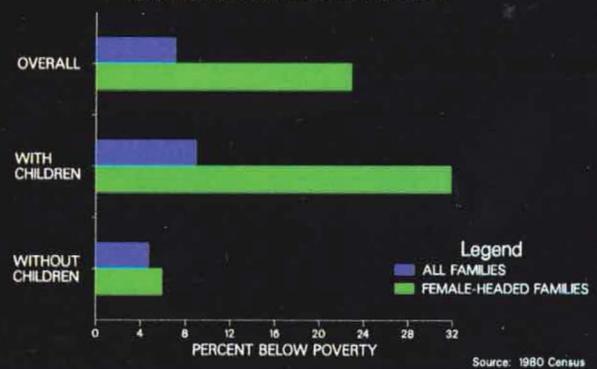
HIGHER POVERTY RATE FOR ELDERLY PERSONS



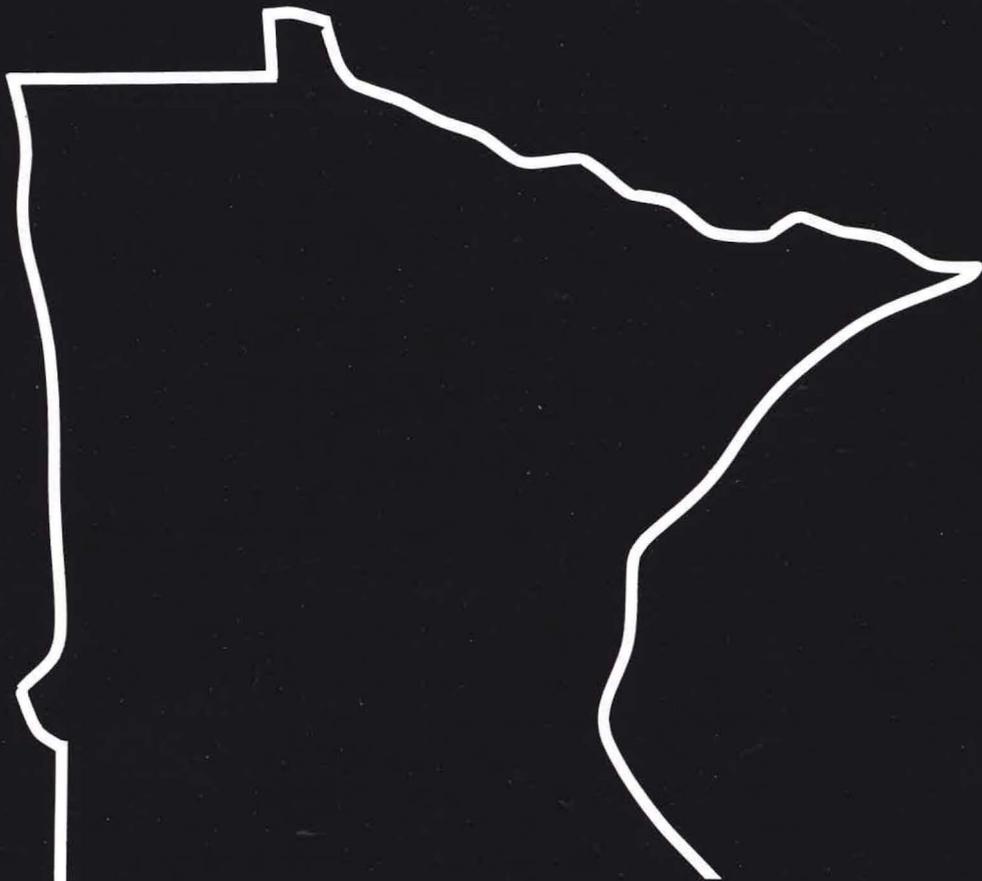
POVERTY AND FAMILIES

Poverty rates are higher for families with children and families headed by females.

POVERTY RATES HIGHER FOR FAMILIES WITH CHILDREN AND FAMILIES HEADED BY FEMALES

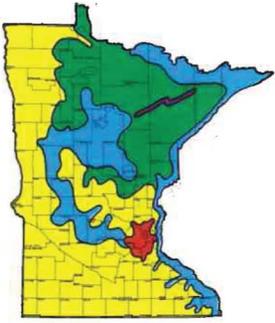


MINNESOTA IN THE EIGHTIES . . .



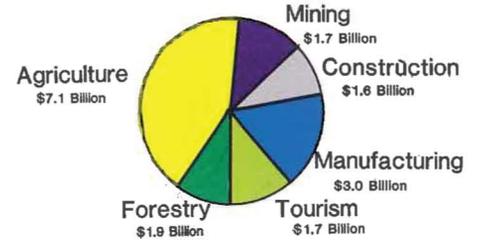
ITS LAND

MINNESOTA'S RESOURCE ZONES



Minnesota's physical resources are the foundation of the state's economic wealth and opportunity. The changing use, development, and management of these resources will guide Minnesota's future. Important decisions will be made in the eighties regarding the allocation of land and investment of funds.

ECONOMIC CONTRIBUTIONS



MINNESOTA'S RESOURCE ZONES

Minnesota's physical resources can be categorized into five broad occasionally overlapping zones: 1) agriculture; 2) forestry; 3) recreation/tourism; 4) minerals; and 5) urban development.

RECREATION RESOURCES

The recreation/tourism zone contains scenic amenities, rivers, lakes, hilly terrain, forest cover, and major recreational facilities.

FOREST REGION

The forest zone includes most of the state's commercial forest land and major manufacturing sites.

MINERAL-RESOURCES

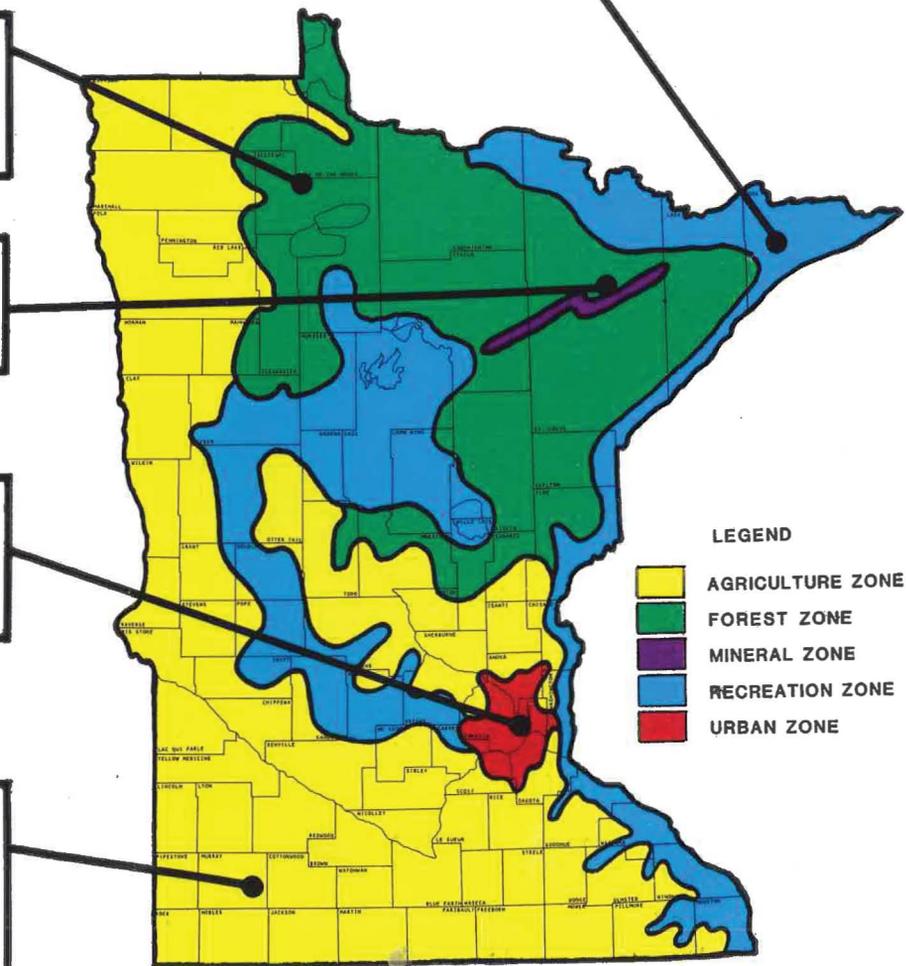
The Iron Range represents the state's primary mining area.

URBAN INFRASTRUCTURE

Minnesota's urban infrastructure is concentrated in the metropolitan area.

AGRICULTURAL REGION

The agricultural zone is identified by the most intensively cultivated land and the concentration of agricultural processing centers.



LEGEND

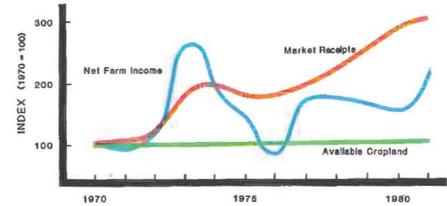


AGRICULTURE



In 1980, agriculture generated \$7.1 billion for the state economy. Farmers experienced record production expenses, low crop prices, and reduced farm income. Minnesota ranks 5th in the nation in both farm income and agricultural exports.

RESOURCE TRENDS



MINNESOTA'S AGRICULTURAL RESOURCES

The agricultural region has three sub-zones of specialized production.

DAIRY REGION

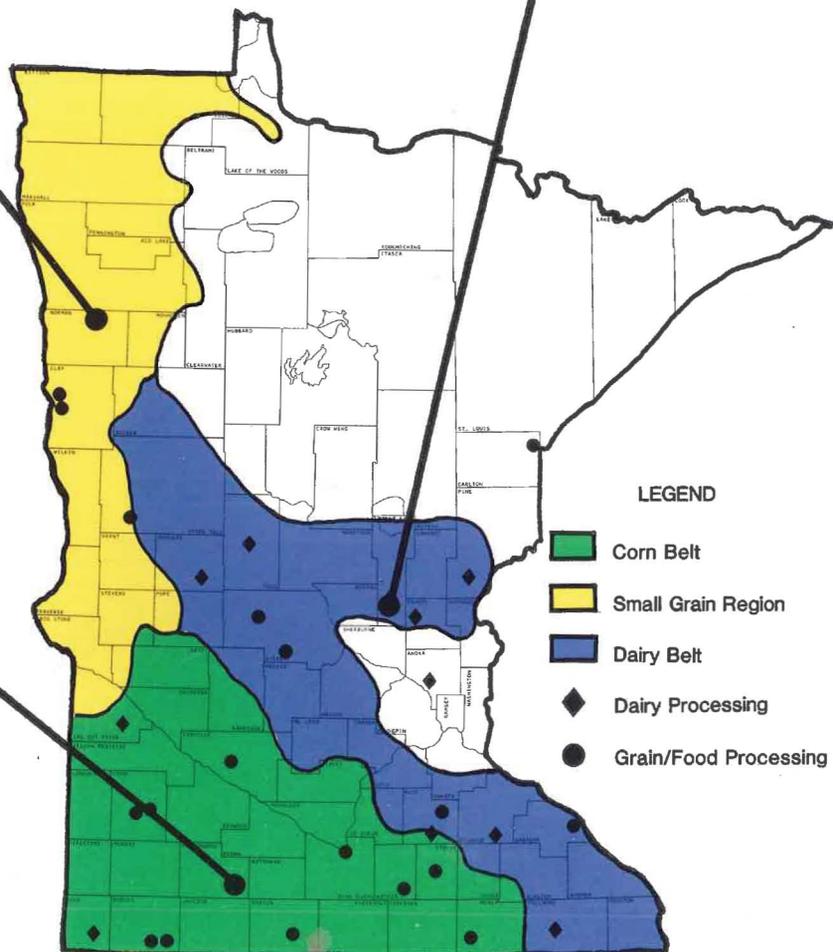
The dairy region consists of less intensively cultivated, rolling terrain with more pastureland. A mix of dairy cows, beef cattle, poultry and interspersed cash crops characterize this area.

SMALL-GRAIN REGION

The small-grain and cash crop sub-zone has flat rich prairie soil, but variable moisture and a shorter growing season. Major crops include wheat, barley, sunflowers, potatoes, and sugarbeets.

CORN BELT

The corn belt is dominated by corn, soybean and hog production. It is marked by rich prairie soils, adequate moisture, and the state's longest growing season and highest ag land values.

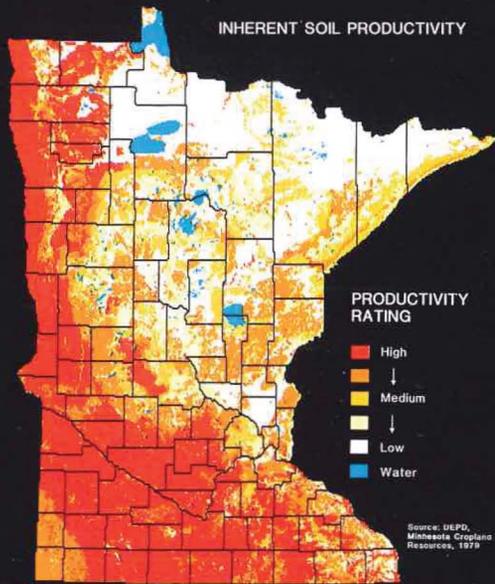


LEGEND

- Corn Belt
- Small Grain Region
- Dairy Belt
- Dairy Processing
- Grain/Food Processing

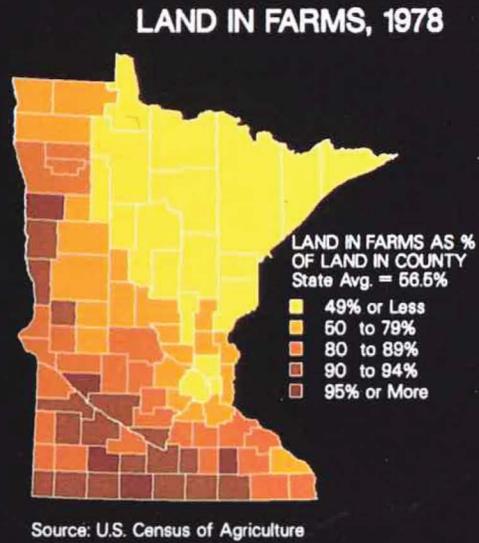
INHERENT SOIL PRODUCTIVITY

Soil productivity is the key to the agricultural zone.



LAND IN FARMS

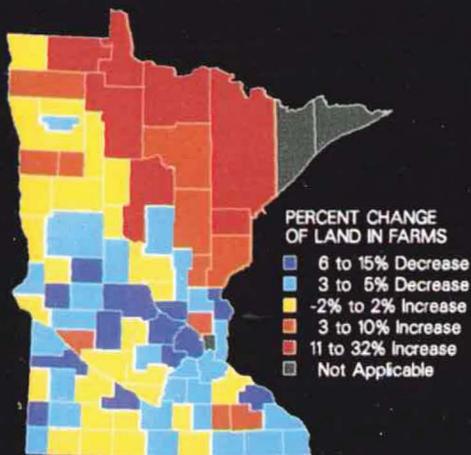
Counties in the ag zone have a higher percent of their land in farms.



CHANGE IN FARMLAND

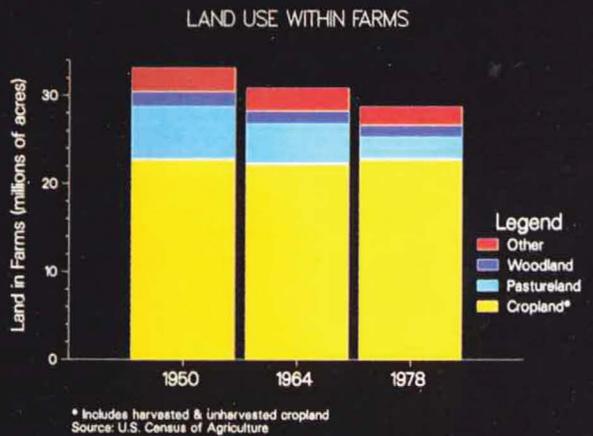
Land in farm units is being gained in marginal areas and lost in counties with more productive soils.

FARMLAND CHANGE, 1969-1978



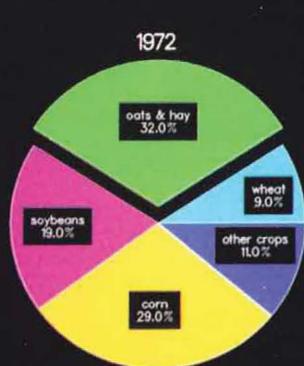
COMPOSITION OF LAND IN FARMS

The amount of land in farm units has declined, but the cropland base has remained stable.

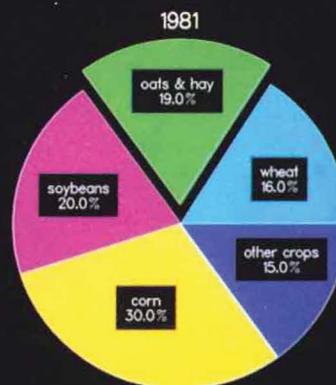


HARVESTED CROPLAND

Minnesota's harvested cropland expanded by nearly 5 million acres in 10 years. Increases were in major cash crops. Oats and hay declined as a percentage of harvested cropland.



17,618,000 Acres
Source: Minnesota Agricultural Statistics



22,470,000 Acres
Source: Minnesota Agricultural Statistics

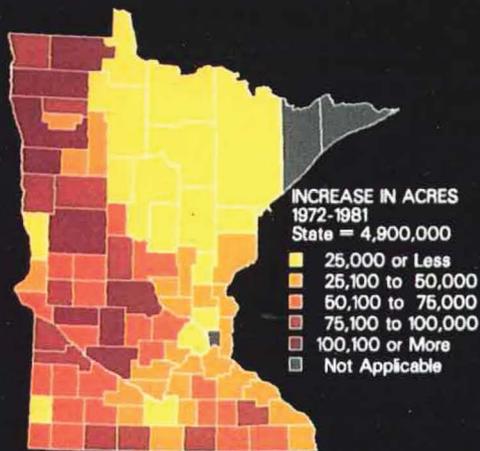
CHANGE IN HARVESTED CROPLAND

Increased cultivation was concentrated in areas of highly productive soils, further intensifying dominantly cultivated areas.

MAJOR CROPS

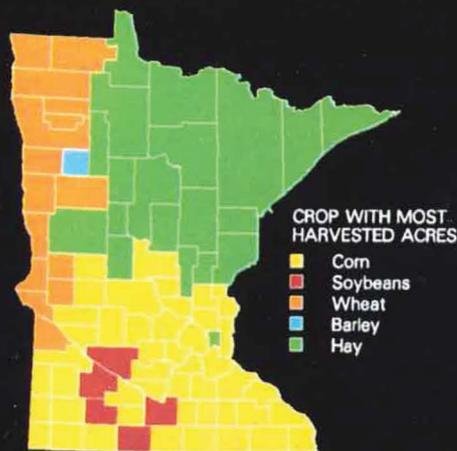
Corn and soybeans are the major cash crops where soil productivity and climate permit; wheat is prevalent where climate imposes limitations.

HARVESTED CROPLAND CHANGE



Source: MN Agricultural Statistics

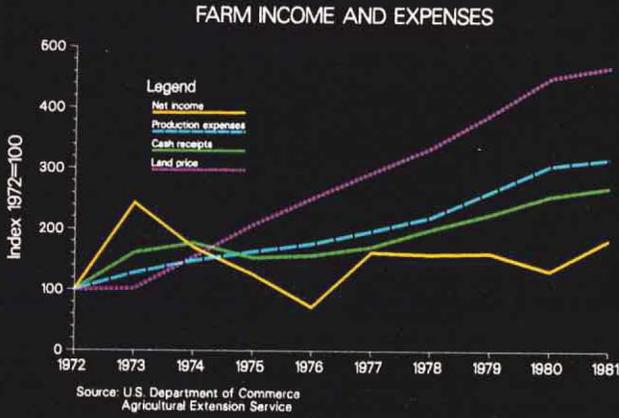
MAJOR CROPS, 1981



Source: MN Agricultural Statistics

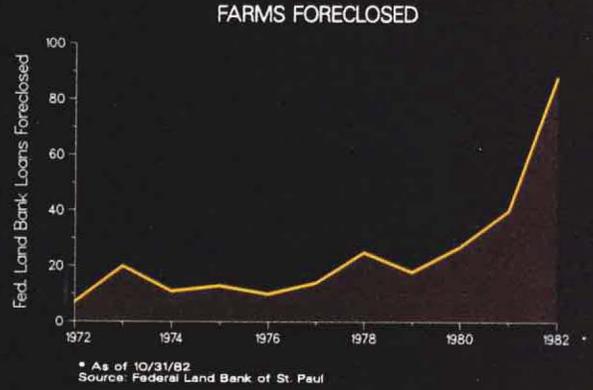
FARM INCOME AND EXPENSES

Farm cash receipts have not kept pace with expenses, thereby limiting farm income.



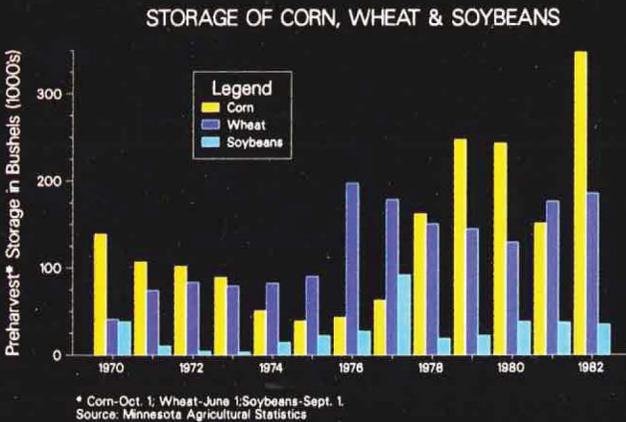
FARM LOAN FORECLOSURES

Rising farm debts combined with high interest rates and other farm management factors have recently forced higher numbers of loan foreclosures.



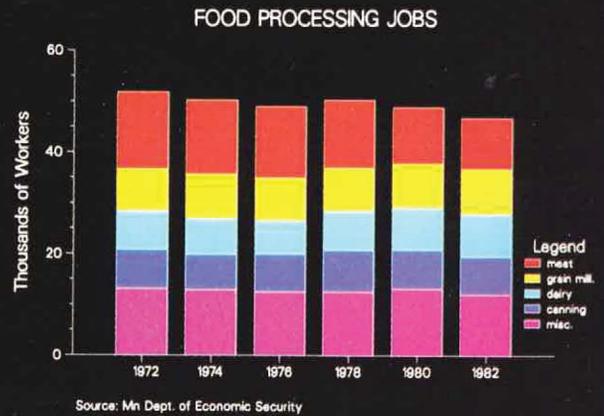
GRAIN STORAGE

Increased crop production and lower prices have resulted in record amounts of stored grain and lower farm income in 1982.



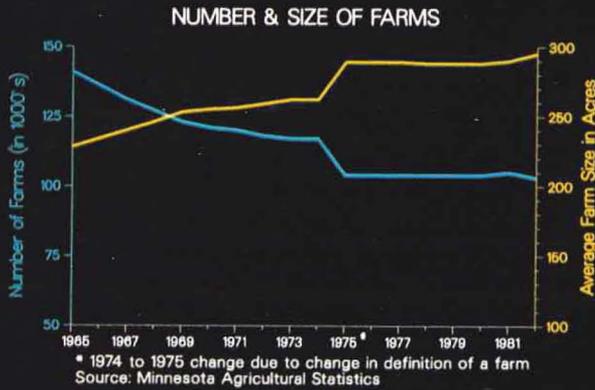
JOBS IN FOOD PROCESSING

Employment in food processing has declined primarily in meat production industries.



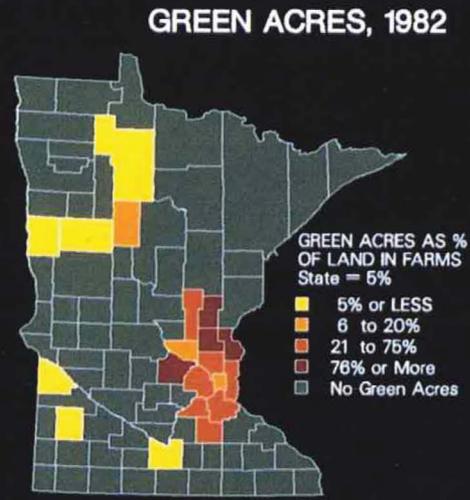
FARM STRUCTURE

Farms have become larger in size and fewer in number.



GREEN ACRES

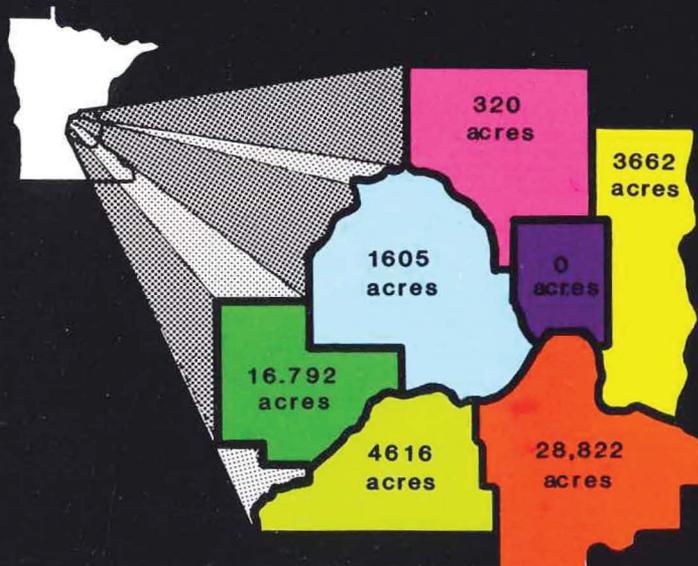
Enrollment in the Green Acres program is concentrated around the Twin Cities metropolitan area.



Sources: County Assessors, MN Dept. of Revenue

METROPOLITAN AGRICULTURAL PRESERVES, 1982

Almost half of the farmland in the metro area is eligible, but farmers enrolled less than 6 percent during the first year of the program.

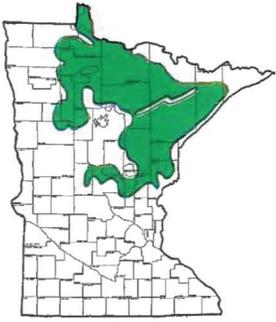


PROGRAM PARTICIPATION BY COUNTY

County	Eligible acres	As % of land in farms	Enrolled acres	As % of land in farms
Anoka	1,560	1.4%	320	0.3%
Carver	229,171	114.2%	16,792	8.4%
Dakota	85,282	31.8%	28,822	10.8%
Hennepin	62,204	50.4%	1,605	1.3%
Ramsey	0	0	0	0
Scott	88,080	49.3%	4,616	2.6%
Washington	3,662	2.4%	3,662	2.4%
METRO AREA TOTAL	469,959	45.1%	61,817	5.9%

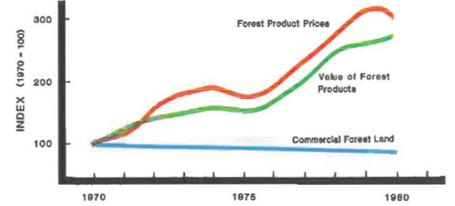
Source: Metropolitan Council

FORESTRY



In 1980, forest resources account for nearly \$1 billion in primary production and another billion in secondary manufacturing. The forest industry represents an opportunity for improved investment and economic growth, especially with improvement in the national economy.

RESOURCE TRENDS



MINNESOTA'S FOREST RESOURCES

Minnesota's forest resources have great potential for further economic development. Over 56 percent of the state's commercial forest land is under public control.

HIGHEST PRODUCTIVITY

Itasca County contains the state's most productive forest land.

PLANT EXPANSION

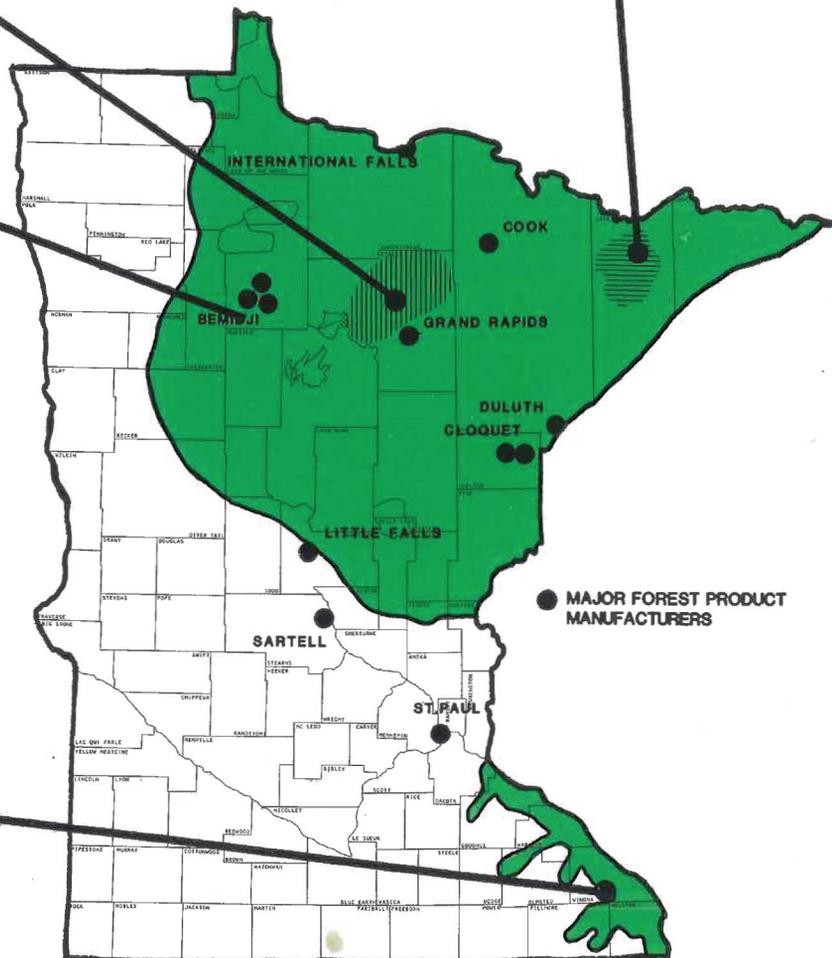
The Bemidji-Grand Rapids area has recently seen new or expanded waferboard and particle board plants.

SOFTWOOD RESOURCE

Lake County has the largest concentration of dominant, softwood forest.

S.E. HARDWOODS

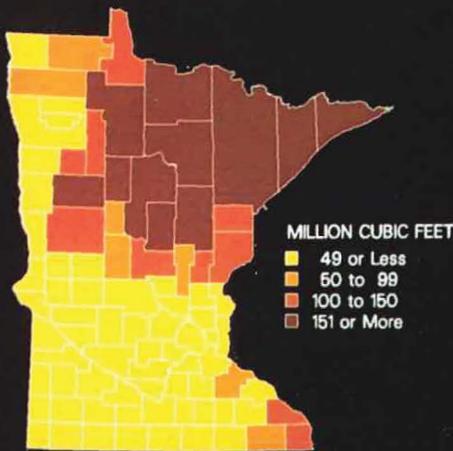
Southeastern Minnesota forests contain high value hardwoods.



TIMBER RESOURCE LOCATION

The state's forest resource is concentrated in 11 northeastern counties.

TIMBER RESOURCE

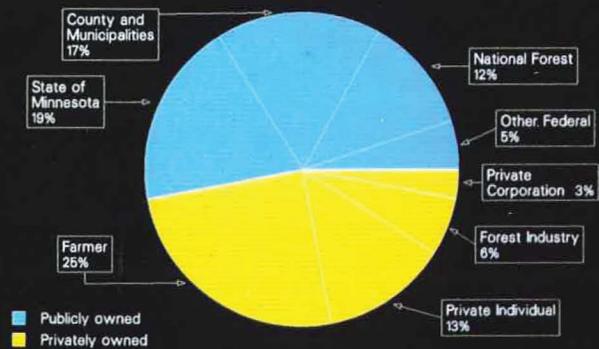


Source: U.S. Forest Service

FOREST LAND OWNERSHIP

Over half of Minnesota's commercial forest land is publicly owned.

FOREST LAND OWNERSHIP, 1977



Source: U.S. Forest Service

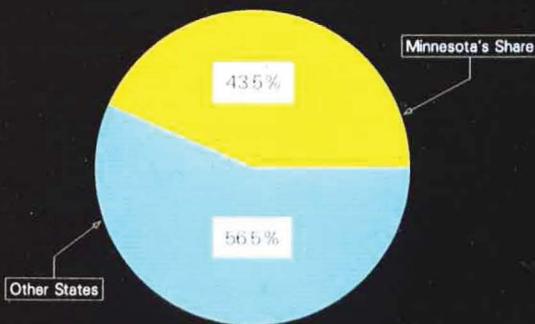
LOCAL GOVERNMENT FOREST LAND

Minnesota local units of government manage 44 percent of the U.S.'s locally owned forest land base.

FOREST LAND PRODUCTIVITY

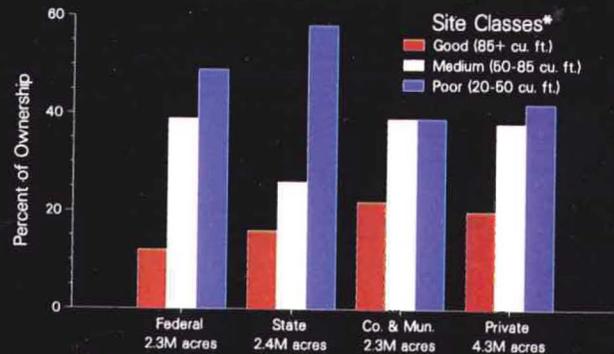
Local units of government and private land owners have a larger share of forest land in the most productive site class.

COUNTY AND MUNICIPAL FOREST LAND OWNERSHIP



Source: U.S. Forest Service

FOREST LAND PRODUCTIVITY, 1977



* Data represents northern pine, aspen & birch units (17 counties)
Source: U.S. Forest Service

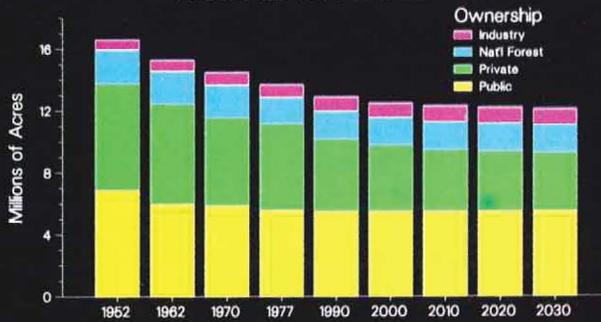
COMMERCIAL FOREST LAND AREA

The state's commercial forest base has steadily declined over the last 30 years. Privately owned land will decline in the future.

CHANGE IN CFL AREA

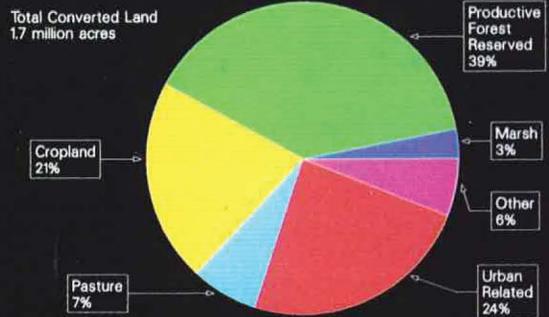
A variety of factors have contributed to the decline of the state's commercial forest land.

PROJECTED FOREST LAND BASE



Source: U.S. Forest Service

COMMERCIAL FOREST LAND CONVERSION, 1962-1977



Source: U.S. Forest Service

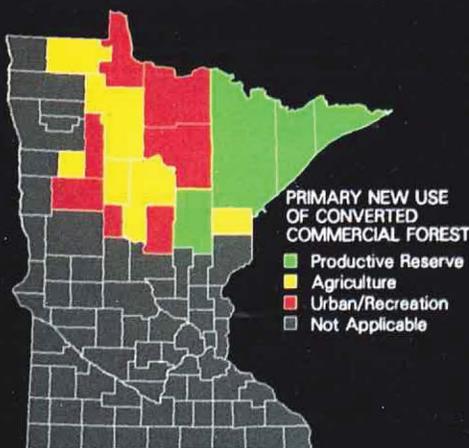
CONVERSION OF CFL, 1962-1977

Expanding agriculture is the major factor converting forest land in the western counties and reserved forest in the northeast.

CONVERSION OF CFL BY COUNTY

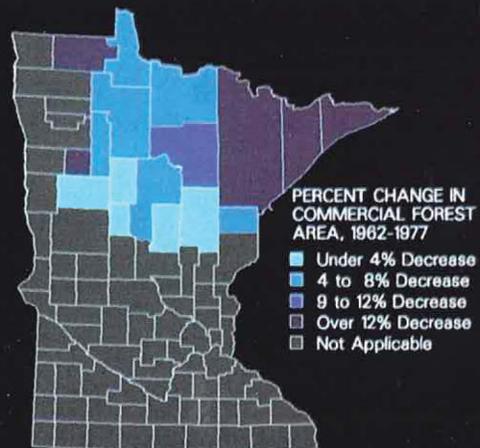
The rate of forest land conversion varies by location.

CONVERSION OF FOREST BY USE



Source: U.S. Forest Service

CONVERSION OF FOREST BY COUNTY



Source: U.S. Forest Service

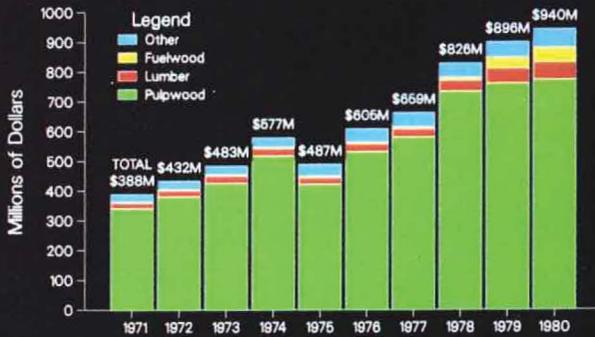
VALUE OF FOREST PRODUCTS

The total value of forest products harvested in Minnesota has steadily increased.

PULPWOOD PRODUCTION

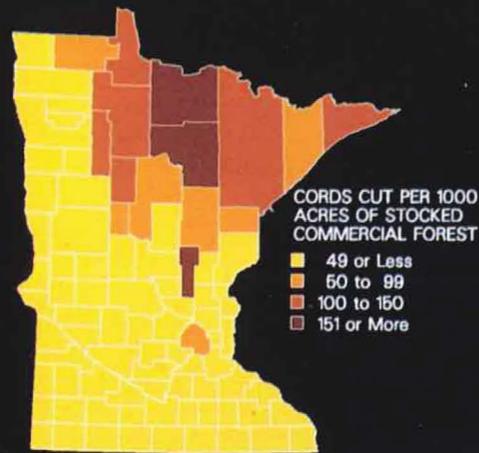
Major pulpwood producing counties are located in the northern half of the forest zone.

VALUE OF FOREST PRODUCTS MFG. IN MINNESOTA



Source: Minnesota Forest Industries Information Committee

PULPWOOD PRODUCTION, 1979



Source: U.S. Forest Service

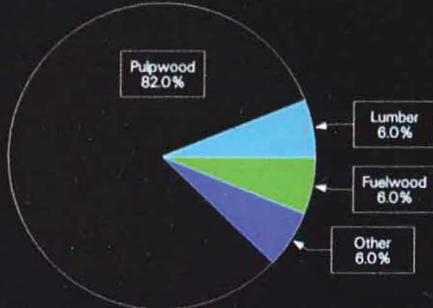
MAJOR FOREST PRODUCTS

Pulpwood is the major forest product accounting for 82% of the total value in 1980.

PRODUCTION OF FOREST PRODUCTS

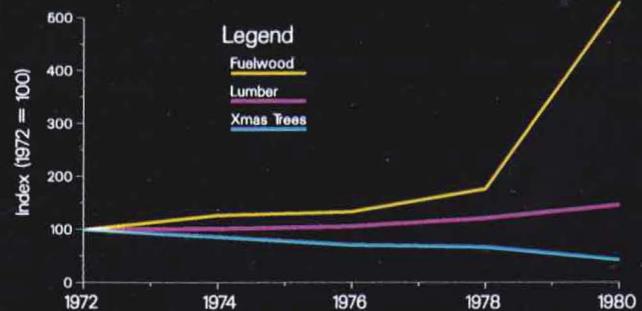
Over the last 10 years, fuelwood production increased sharply, while the production of Christmas trees declined.

DISTRIBUTION OF FOREST PRODUCT VALUE, 1980



Source: Mn Timber Producers Association

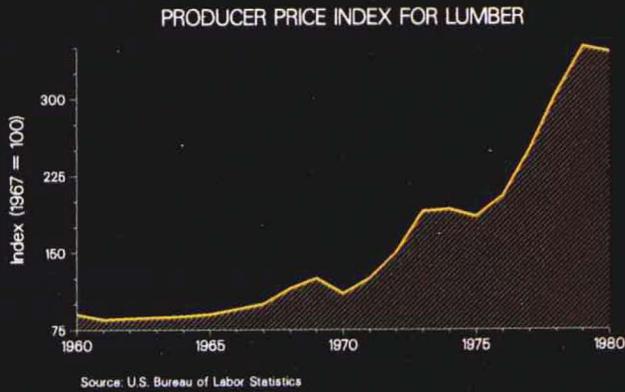
PRODUCTION OF SELECTED PRODUCTS



Source: Mn Timber Producers Association

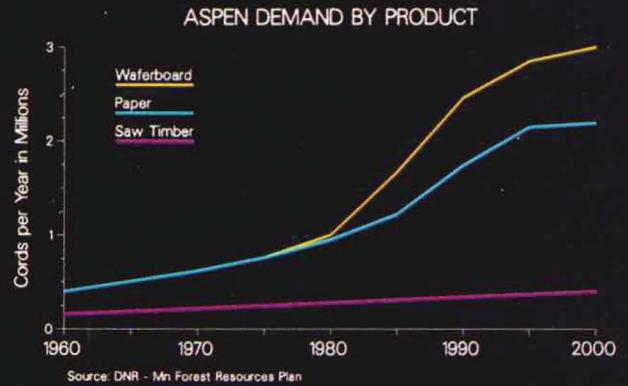
FOREST PRODUCT PRICES

The cost of producing forest products rose dramatically during the 70's.



ASPEN DEMAND BY USE

Demand for aspen is expected to increase because of new waferboard plant expansion and other uses.

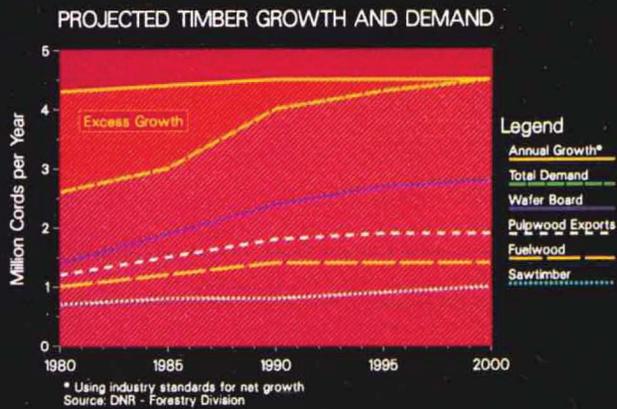


FOREST RESOURCE DEMAND

The demand for timber resources is anticipated to be close to annual growth around the year 2000.

FOREST GROWTH AND REMOVALS

Removal of forest resources is expected to approach annual growth around 2010.

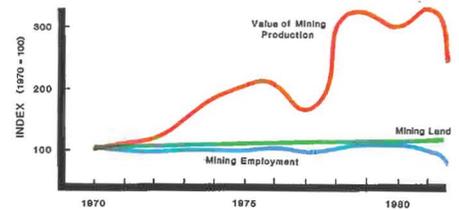


MINERALS



In 1979, Minnesota's mining activities represented a 2 billion dollar industry. The current economic recession has reduced production and employment due to the weak demand for steel and the slumping housing market and construction industry.

RESOURCE TRENDS



MINNESOTA'S MINERAL RESOURCES

Minnesota has a variety of minerals that represent an opportunity for development.

PEAT

Minnesota contains an estimated 7.5 million acres of peatland, an amount exceeded only by Alaska. Peat is a largely untapped fuel resource.

IRON ORE

Natural iron ore production has been replaced by taconite production. In 1982, production was severely curtailed due to lack of a demand.

URANIUM

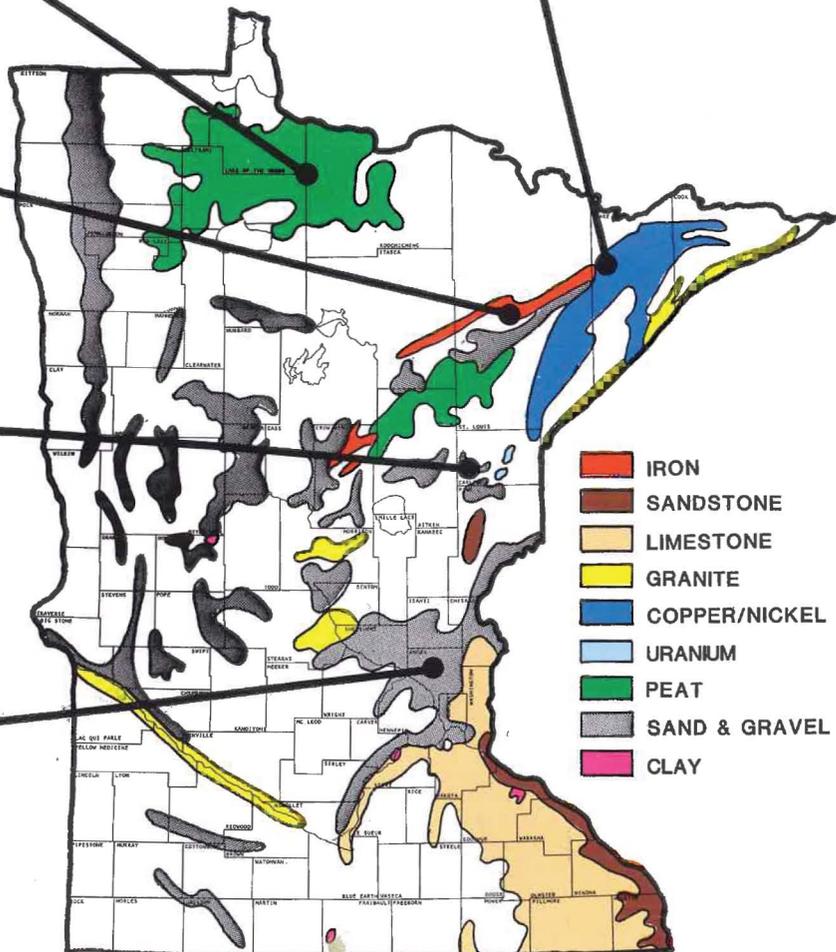
The early 80's has seen interest in uranium exploration.

SAND AND GRAVEL

Sand and gravel is one of the state's more plentiful resources. However, adequate supply is not always located near high demand areas. Development of quality resources is often prevented by conflicts with urban land uses.

COPPER-NICKEL

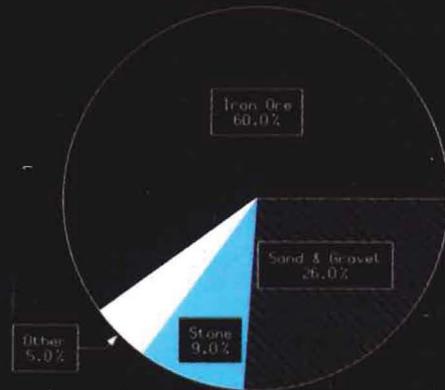
The Duluth Gabbro belt has recently seen exploration for Copper/Nickel and other minerals.



MINING SITES AND PROSPECTS

Iron and sand and gravel mining operations occupy the greatest land area.

Mineral Commodity	Acres*
Iron	66,880
Sand and Gravel	29,160
Stone	10,000
Clay	1,440
Manganese	1,160
Peat	1,040
Copper/Nickel	440
Uranium	400
Miscellaneous	1,120
Total	111,640



Sources: Mineral Industry Location System; MLMIS
 * Derived from 40-acre cell counts

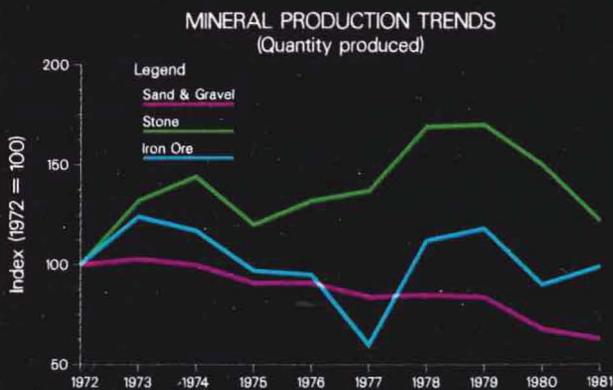
. . . production trends

QUANTITY OF MINERAL PRODUCTION

Production of the state's leading minerals has shown large fluctuations.

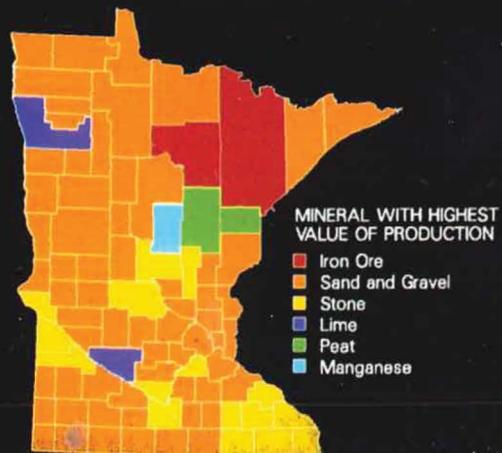
LEADING MINERALS

Sand and gravel are the leading minerals in most counties.



Source: Department of the Interior, Bureau of Mines

LEADING MINERALS, 1979

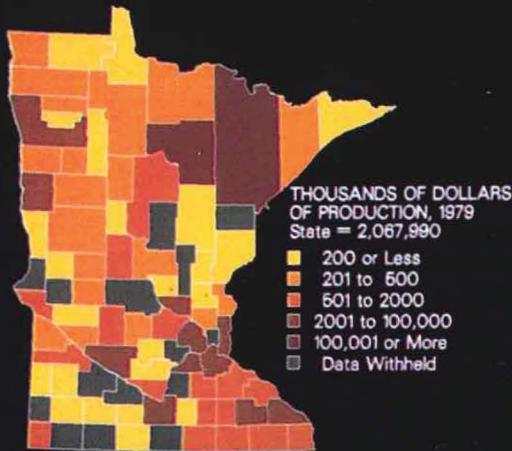


Source: U.S. Dept. of Interior

COUNTY MINERAL PRODUCTION

Iron ore producing counties generate most of the state's mineral production dollars. Sand and gravel production is prevalent near large urban areas.

VALUE OF MINERAL PRODUCTION

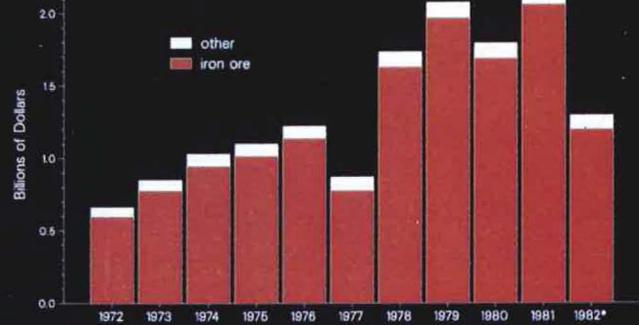


Source: U.S. Dept. of Interior

STATE MINERAL PRODUCTION

Decline in total state mineral production has resulted from slumps in iron ore production: shippers strike in 1977; low demand in 1982.

VALUE OF NON-FUEL MINERAL PRODUCTION

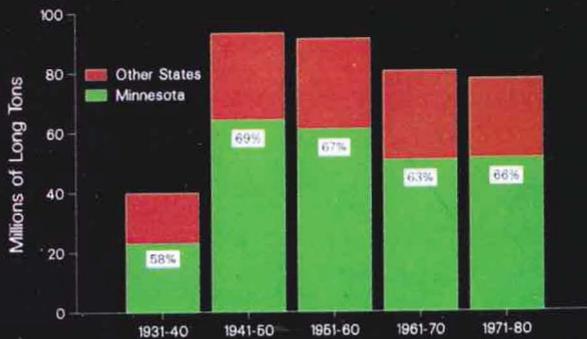


* Preliminary
Source: Dept. of Interior, Bureau of Mines

IRON ORE SHIPMENTS

Minnesota's percent of total U.S. iron ore shipments has been consistent. U.S. and Minnesota shipments have declined since World War II.

ANNUAL IRON ORE SHIPMENTS

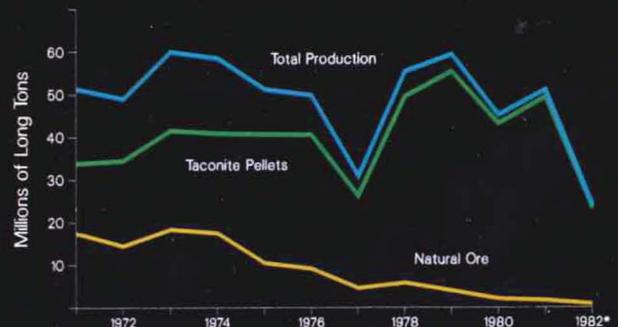


Source: U.S. Department of the Interior

IRON ORE PRODUCTION

Taconite pellets have replaced natural ore.

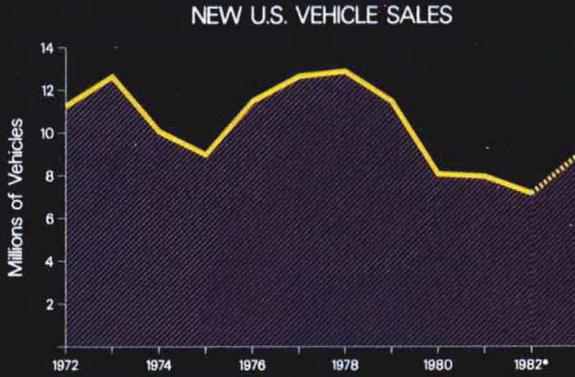
IRON ORE PRODUCTION



*Preliminary
Source: U.S. Department of the Interior

NEW U.S. VEHICLE SALES

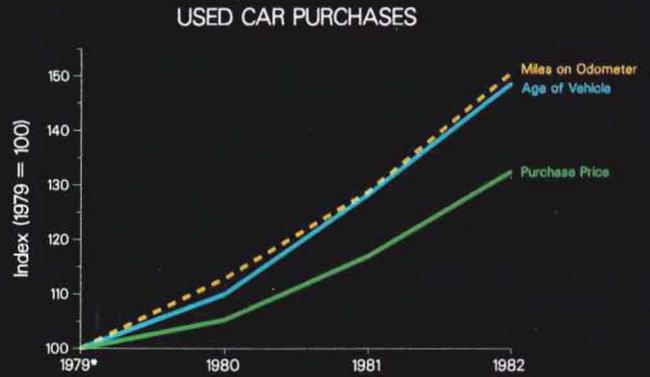
Auto manufacturing is a primary user of steel and Minnesota's iron ore. New vehicle sales have dropped by more than five million units since 1978; a 40% decrease.



*1982 and 1983 figures are estimates
Sources: Motor Vehicle Manufacturers Association
Department of Commerce

USED CAR PURCHASES

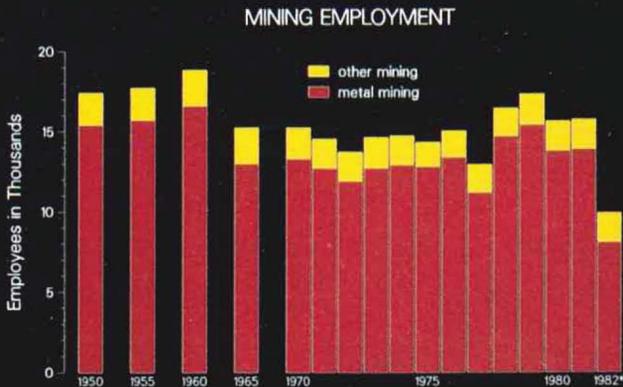
Consumers are purchasing more used autos and operating them longer.



*Base year 1979 values: Miles = 29,030; Age = 2.86 years; Price = \$3,602
Source: Hertz Corporation

MINING EMPLOYMENT

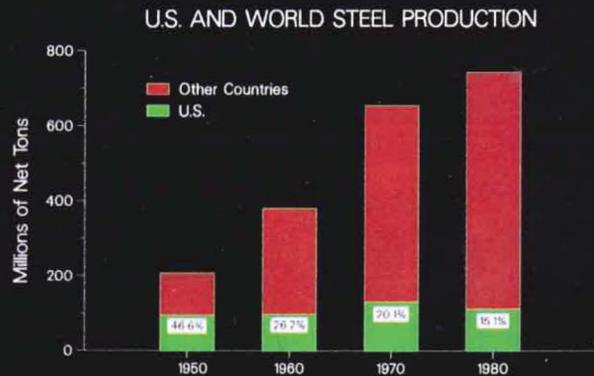
Metal mining (iron ore) represents the majority of mining jobs. Unemployment correlates with slumps in production.



* First 10 Months of 1982
Source: Minnesota Department of Economic Security

U.S. AND WORLD STEEL PRODUCTION

World steel production has almost quadrupled since 1950. U.S. iron ore and steel products are facing stiffer foreign competition.

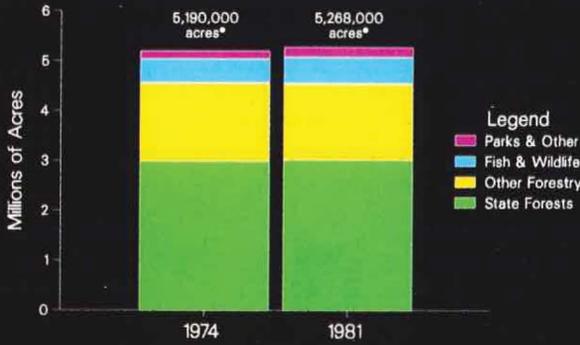


Source: American Iron and Steel Institute

STATE LAND OWNERSHIP

Total land in state ownership has remained constant during the last decade.

STATE OWNED LAND, 1974 and 1981

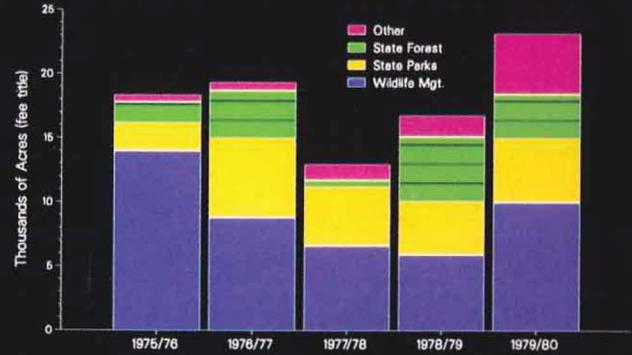


*Broken down by administrative units
Source: Department of Natural Resources Land Records

STATE LAND ACQUISITION

The DNR acquired about 100,000 acres since 1975, roughly half for wildlife management.

DNR LAND ACQUISITION

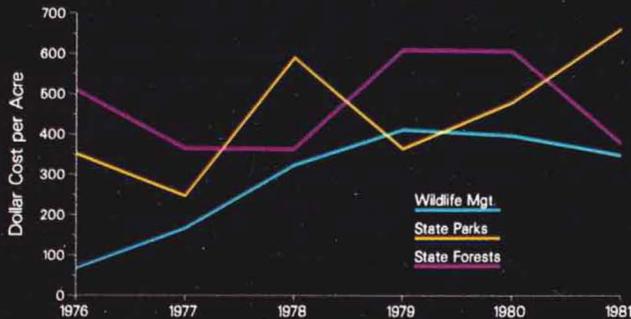


Source: DNR - Acquisition and Exchange

ACQUISITION COST PER ACRE

Rising rural land values had their greatest impact on wildlife land acquisition, increasing per acre costs fivefold.

DNR LAND ACQUISITION COSTS

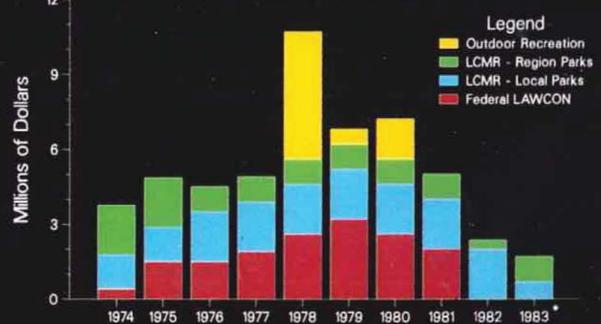


Source: DNR - Acquisitions and Exchange

LOCAL PARK APPROPRIATIONS

Federal and state appropriations for local parks have declined sharply since 1978.

FEDERAL/STATE APPROPRIATIONS FOR LOCAL PARKS, 1974-83



*Allocated in work program, but not appropriated
Source: DEPD, Office of Local Government

TOURIST TRAVEL EXPENDITURES

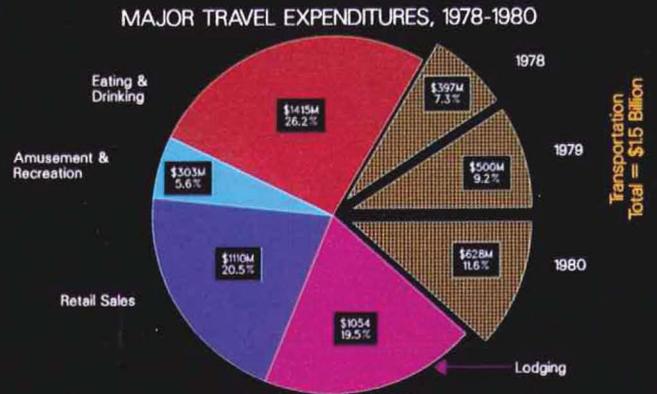
Tourist travel expenditures more than doubled since 1971.



* Preliminary data
Source: Minnesota Department of Economic Development

MAJOR TRAVEL EXPENDITURES

The transportation travel expenditure category has increased most rapidly.

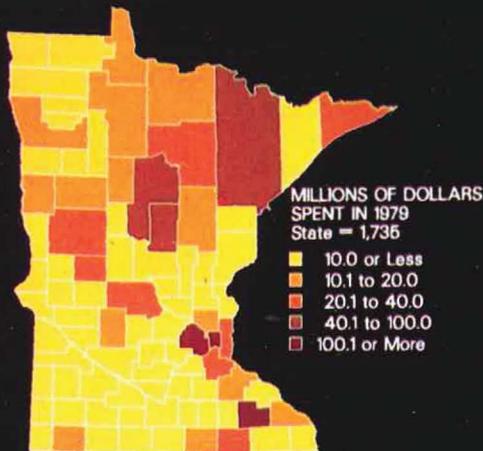


1978 - 1980 Total = \$5.4 Billion
Source: Mn Department of Economic Development, Research Division

LOCATION OF TRAVEL EXPENDITURES

About 50% of all tourist travel expenditures are made in the Twin Cities metropolitan area. Rochester and the northern lake-resort counties also have a significant tourism base.

TOURIST EXPENDITURES, 1979

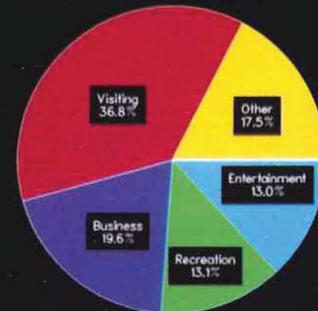


Source: DEPD, Office of Tourism

REASONS FOR TRAVEL

Most U.S. travel trips are related to visiting.

PURPOSE OF TRIP, 1977*

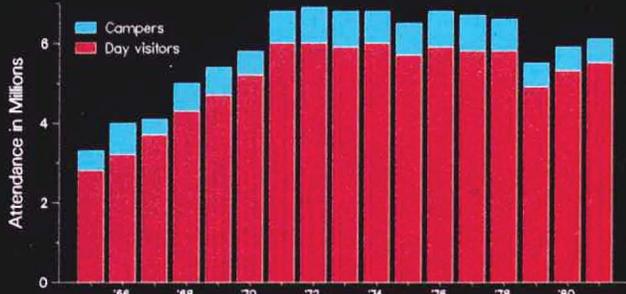


* U.S. travel characteristics
Source: Statistical Abstract of the U.S., 1981

STATE PARK USE

State park attendance increased rapidly during the late 60's, leveled off and then declined in the late 70's.

STATE PARK & MONUMENT ATTENDANCE

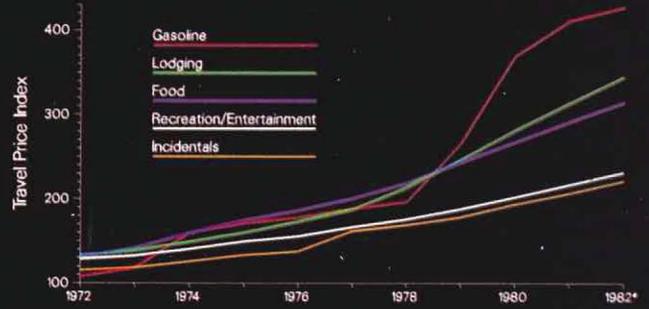


Source: DNR Parks and Recreation

THE COST OF TRAVEL

Higher costs for gasoline resulted in the price index for transportation increasing more rapidly than other factors.

TRAVEL PRICE INDEX & ITS COMPONENTS

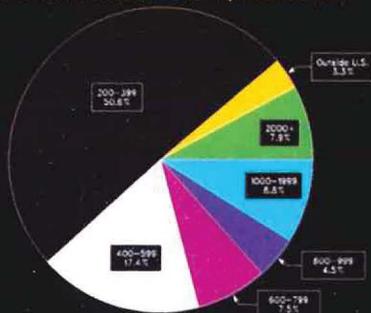


Source: U.S. Travel Data Center

TRAVEL DISTANCE

Slightly more than two-thirds of U.S. travel trips have a destination within 300 miles.

TRAVEL DISTANCE (Round Trip Miles), 1977*

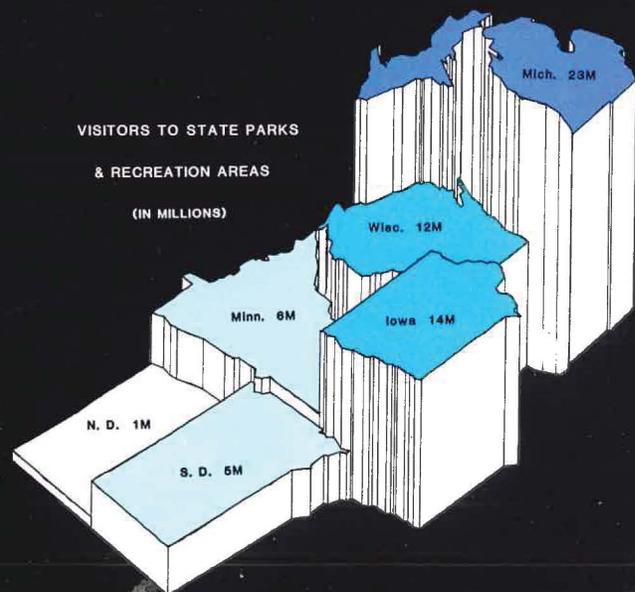


* U.S. travel characteristics, 1977
Source: Statistical Abstract of the U.S., 1981

COMPARISON OF PARK VISITORS

Minnesota has fewer state park visitors than surrounding states, due primarily to the distance from major urban centers to Minnesota's parks.

VISITORS TO STATE PARKS & RECREATION AREAS (IN MILLIONS)

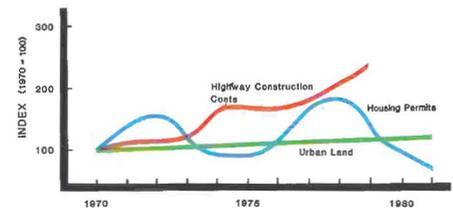


URBAN INFRASTRUCTURE



Minnesota's urban infrastructure is in need of increased maintenance and rehabilitation. These needs are occurring in a period of declining revenues and shifting financial burdens. The infrastructure's condition is crucial to the state's economic health and expansion.

INFRASTRUCTURE TRENDS



MINNESOTA'S URBAN INFRASTRUCTURE

Urban infrastructure consists of existing public investment in Minnesota communities.

DECISIONS

The Legislature will face difficult decisions in allocating scarce dollars to maintain a sound infrastructure to foster economic growth in Minnesota.

DEFINITION

Urban infrastructure includes highways, bridges, railroads, airports, public buildings, landfills and sewer and water facilities.

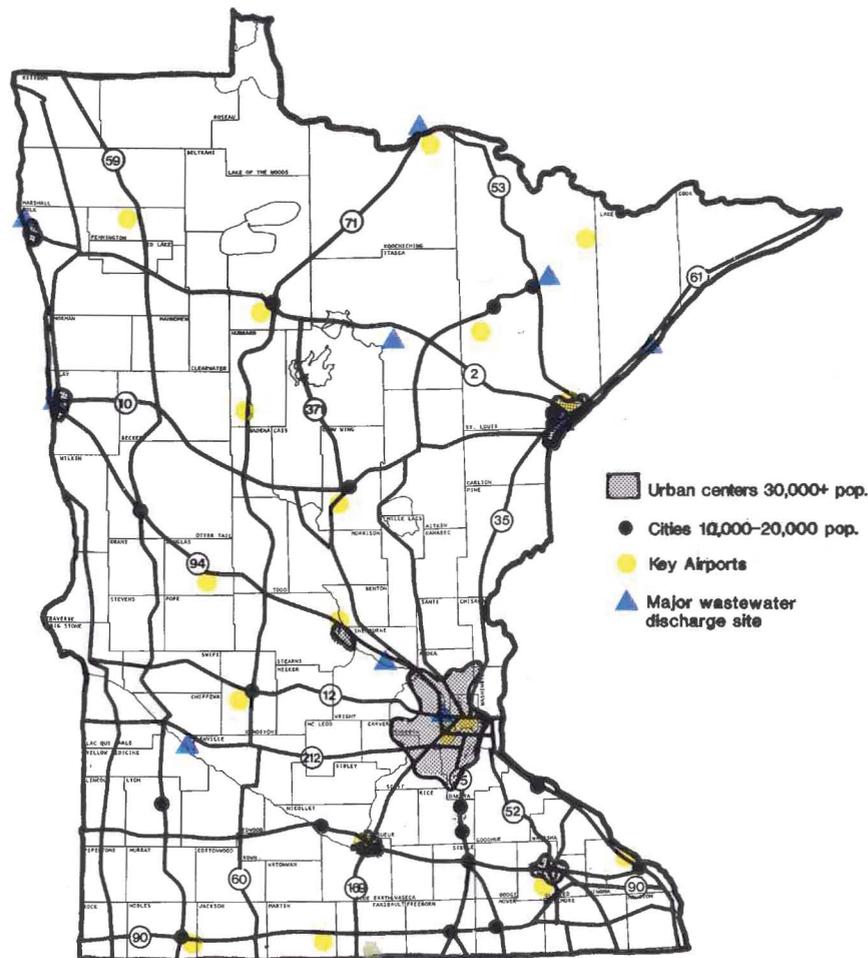
FUNCTION

Infrastructure serves residential, commercial, and industrial activities that make up the heart of our economy.

COSTS

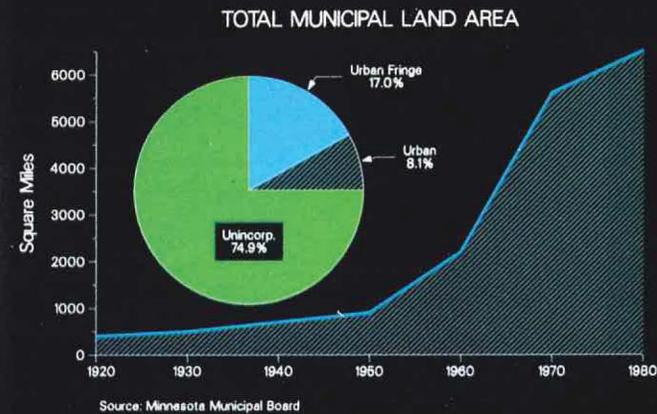
The fiscal cost of maintaining, rehabilitating, and replacing aging components of the infrastructure is staggering. For instance, local communities are currently in need of \$1.5 billion for sewer and waste water treatment projects alone.

Increases in new residential construction appear to precede commercial and industrial investment.



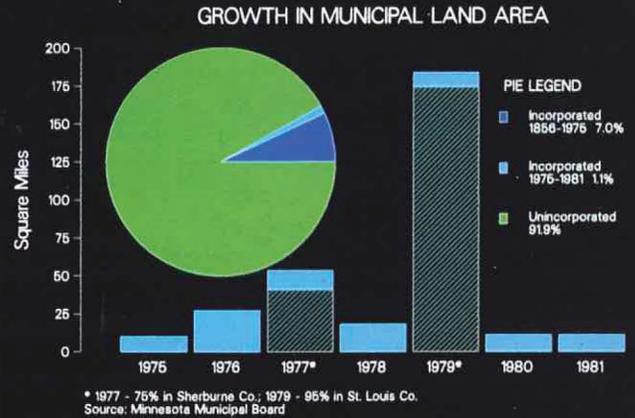
MUNICIPAL LAND AREA

Minnesota cities began to expand rapidly in the 1950's with the development of the modern auto and improved highways.



MUNICIPAL ANNEXATION, 1975-1981

Minnesota cities annexed 177,000 acres of land, which represents only 1% of the state's land area.



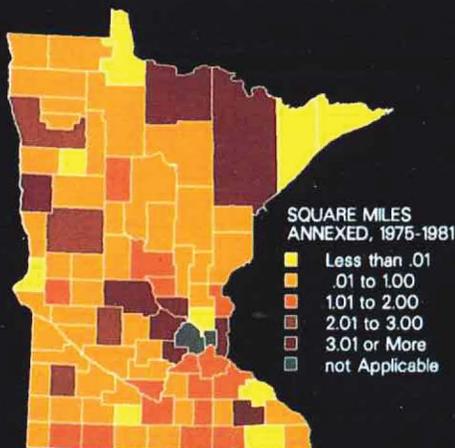
LOCATION OF MUNICIPAL ANNEXATION

Municipal land annexation has been concentrated near urban areas and major highways.

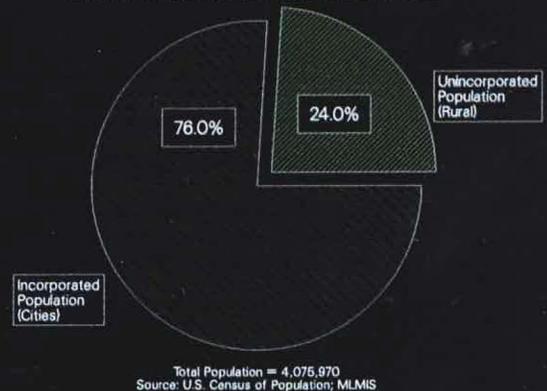
INCORPORATED POPULATION

About 3/4 of Minnesota's population lives in cities.

ANNEXATION BY COUNTY

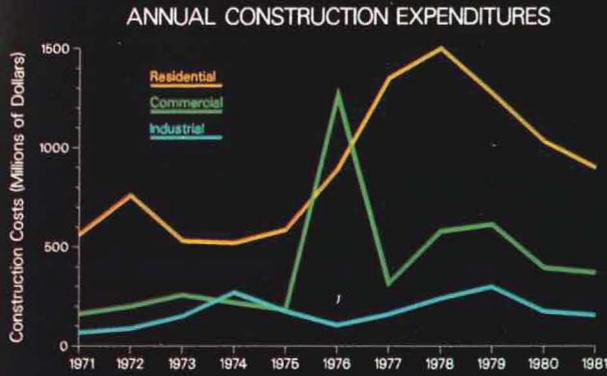


URBAN AND RURAL POPULATION, 1980



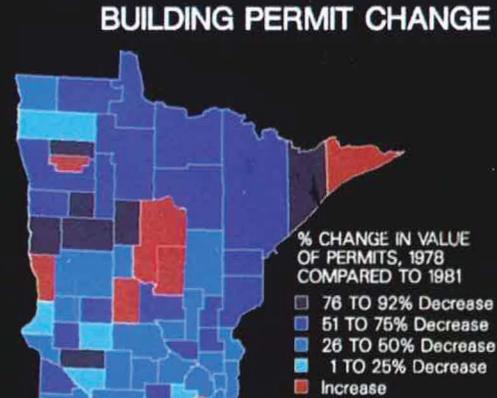
VALUE OF CONSTRUCTION

The total value of residential, commercial and industrial construction was affected by two major recession periods, 1973-1974 and 1980 to the present.



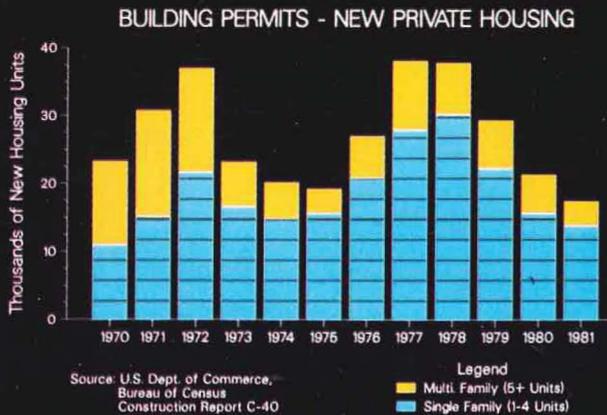
CONSTRUCTION DECLINE

High interest rates had a statewide impact on residential, commercial and industrial construction.



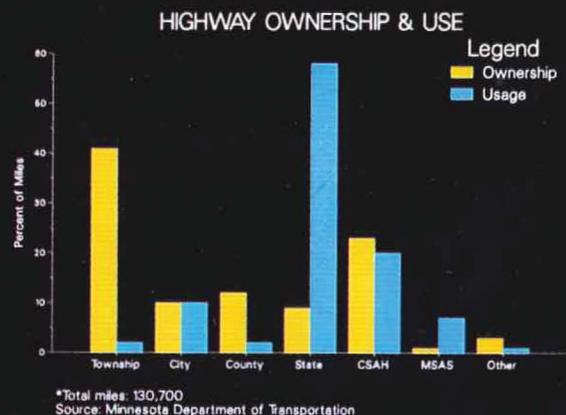
HOUSING CONSTRUCTION

Permits for housing fluctuated with recessions. Multi-family apartment units were built in the early 70's, while single-family (1-4 units) were dominant in the later 1970's.



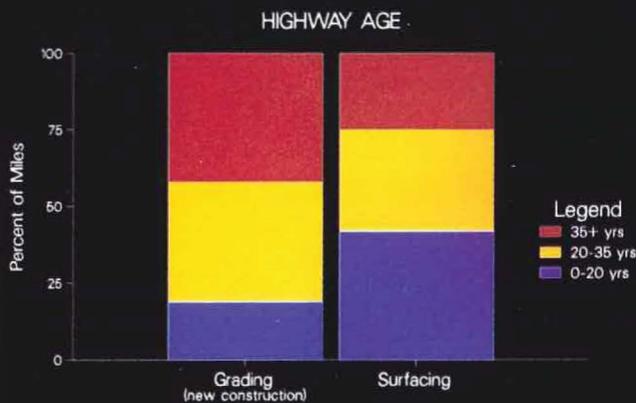
HIGHWAY OWNERSHIP AND USE

In 1980, state trunk highways accounted for only 9% of Minnesota's roads but 58% of the total miles driven.



HIGHWAY AGE

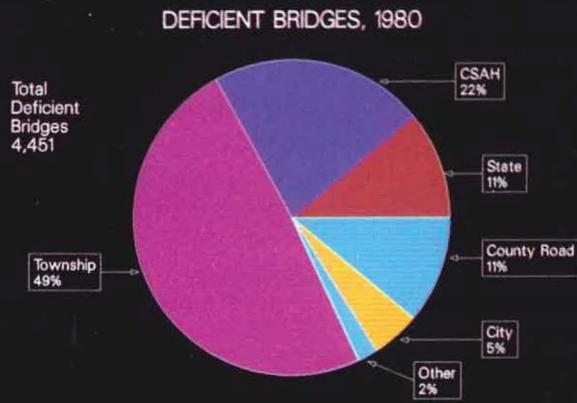
A large proportion of Minnesota's highways and bridges are reaching an age where they need to be rebuilt or resurfaced.



Source: Minnesota Department of Transportation

DEFICIENT BRIDGES, 1980

About half of the state's deficient bridges are located on township roads.



Source: Minnesota Department of Transportation

MUNICIPAL RAIL SERVICE

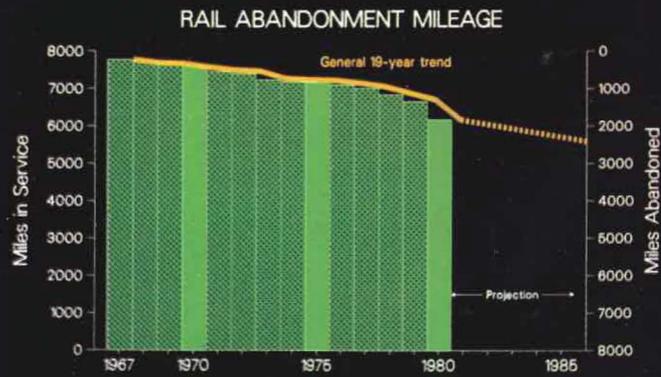
A growing number of Minnesota cities do not have access to rail or a 9-ton road.



Source: Minnesota Department of Transportation

RAIL ABANDONMENT

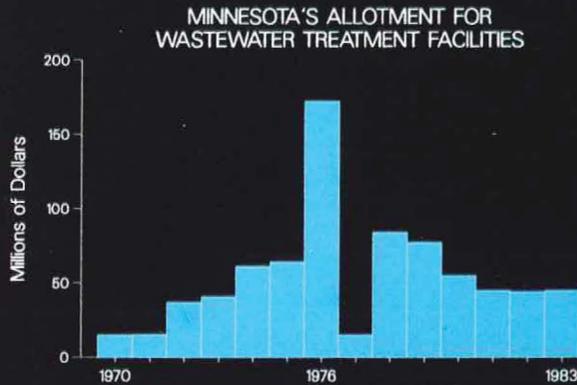
1620 miles of rail have been abandoned in Minnesota since 1967. The abandonment trend has accelerated in recent years.



Source: Minnesota Department of Transportation

WASTEWATER TREATMENT FUNDING

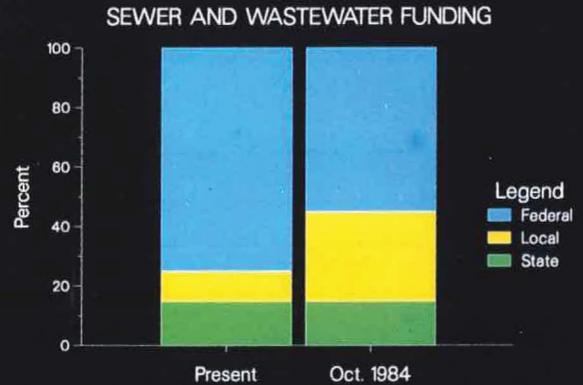
Federal assistance to Minnesota for wastewater treatment facilities peaked in the mid 70's.



Source: Minnesota Pollution Control Agency

EPA/PCA COST SHARING

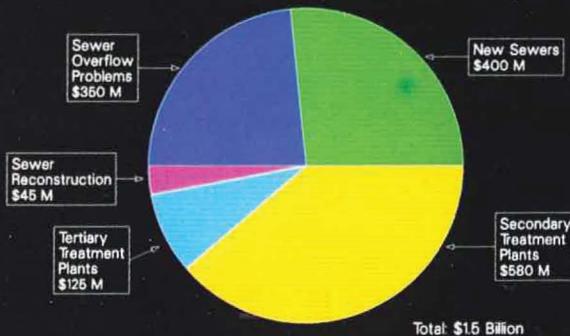
The federal share of sewer and wastewater treatment funding will decline 20% in 1984.



SEWER AND WATER NEEDS, 1982

A recent survey identified \$1.5 billion of needed sewer and wastewater treatment projects for Minnesota communities.

SEWER AND WASTEWATER FACILITY NEEDS, 1982

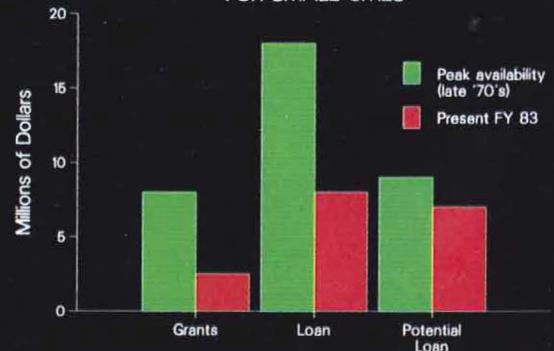


Source: PCA - Water Quality Division Federal Needs Survey, 1982

FHA-SEWER FUNDING

The Farmers Home Administration provides funding to small cities for sewer and wastewater treatment projects. Available funding has decreased and interest rates on loans are still relatively high.

CHANGE IN SEWER & WASTEWATER FUNDING FOR SMALL CITIES

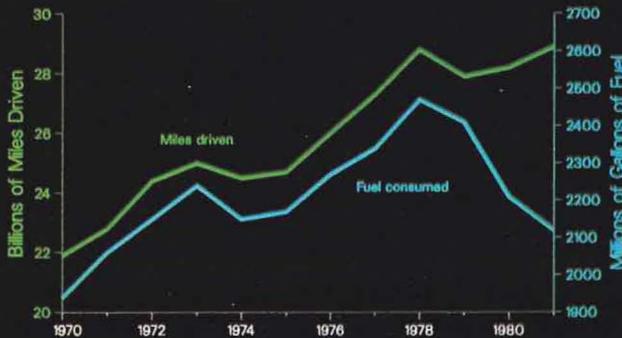


Source: Farmers Home Administration

HIGHWAY AND GASOLINE USE

Highway use has increased, but fuel consumption has fallen because of smaller and more fuel-efficient cars. Gasoline tax revenue has not kept pace with highway maintenance needs.

MILES DRIVEN AND FUEL CONSUMED

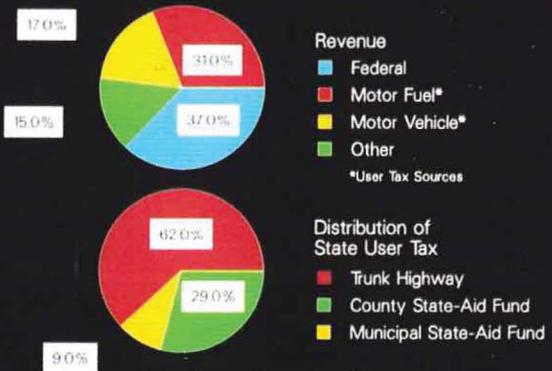


Source: Minnesota Department of Transportation

HIGHWAY REVENUE SOURCES

In 1980, 48 percent of Minnesota's highway revenue came from user taxes. 62 percent of the user tax is allocated to maintenance of the trunk highway system.

REVENUE SOURCES - 1980

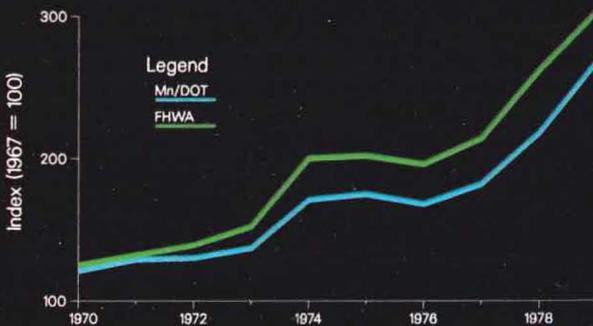


Source: Minnesota Department of Transportation

HIGHWAY CONSTRUCTION COSTS

The cost of building and maintaining our highways has accelerated rapidly in recent years.

HIGHWAY CONSTRUCTION COSTS

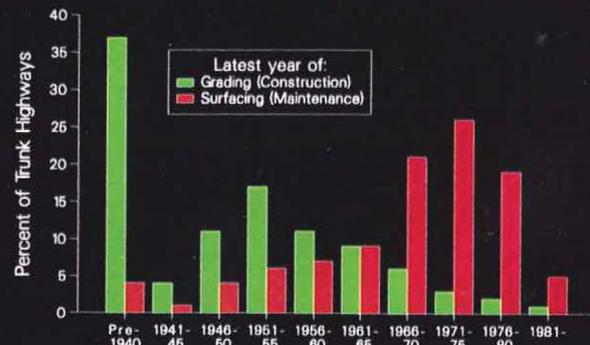


Source: Minnesota Department of Transportation

HIGHWAY MAINTENANCE

Highway construction peaked in the 50's followed by a shift of revenue from expenditures to maintenance as our highways have become older.

HIGHWAY CONSTRUCTION AND MAINTENANCE

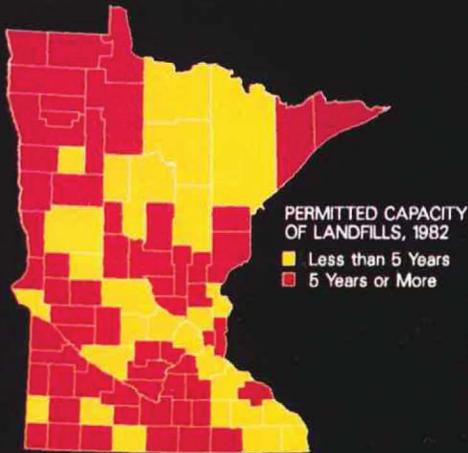


Source: Minnesota Department of Transportation

SOLID WASTE FACILITY NEEDS

27 counties have landfills with permitted capacity of less than five years.

PERMITTED LANDFILL CAPACITY

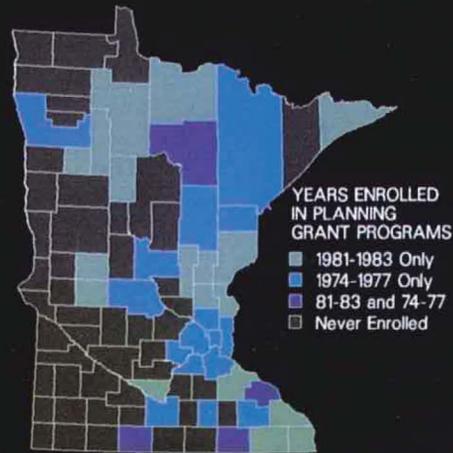


Source: MN Pollution Control Agency

RESOURCE RECOVERY EFFORTS

Since 1974, 37 counties have been involved in resource recovery planning.

RESOURCE RECOVERY PLANNING

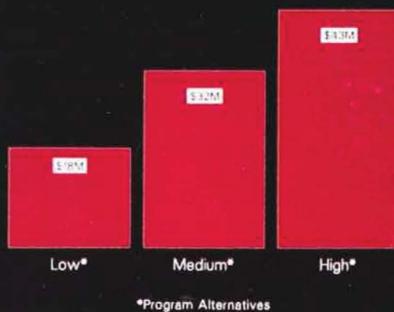


Source: MN Pollution Control Agency

RAILROAD FUNDING NEEDS

18 to 45 million dollars are needed to rehabilitate Minnesota's branchline railroads.

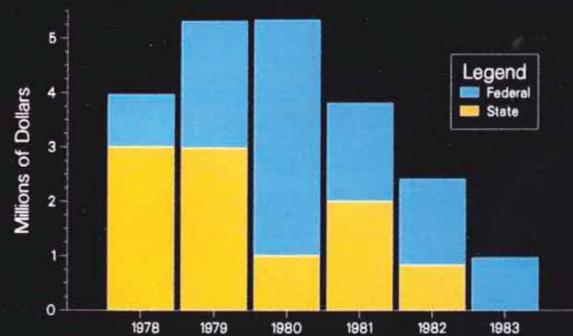
**RAIL FUNDING NEEDS
1982-83 BIENNIUM**



RAIL APPROPRIATIONS

Federal and state appropriations for branchline rehabilitation are declining.

STATE & FEDERAL APPROPRIATIONS FOR RAILROADS*



*Excludes planning monies; '83 state appropriations to be determined
Source: Minnesota Department of Transportation

DIVISION of PLANNING
DEPARTMENT of ENERGY, PLANNING and DEVELOPMENT