

2. Demographic Composition

Organization

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Purpose

The purpose of the Demographic Composition Chapter is to understand the current and projected population and socio-economic makeup so as to better plan for Northfield's future.

A. Introduction

Northfield has been a thriving community for more than 150 years. Situated on the Cannon River in an agricultural area, the city is home to two liberal arts colleges, historic downtown and residential neighborhoods, and various manufacturing and regional businesses. Today, Northfield is within a 45 minute drive from the Twin Cities and the proximity to the Twin Cities is emerging as a factor in future population growth. Located on the border of Rice and Dakota Counties, a small portion of Northfield is in Dakota County, which has been a part of the Minneapolis-St. Paul Metropolitan Area since the 1950 Federal Census.

B. Population of Northfield

Over the past 50 years, Northfield has experienced a relatively consistent rate of growth; averaging 18% per decade since 1950, with the largest numerical increase occurring during the 1990s when population increased by 2,463 persons (See Table 2.1).

With two colleges within its corporate limits, the increase in college enrollments played a large role in Northfield's growth from 1950 to 1980. For example, in the 1960s the increase in college students accounted for 61% of the city's growth, while in the 1970s students accounted for 52% of the population increase. However, since 1980, growth in the non-student population accounted for all of Northfield's population growth. The decennial censuses are one source for the number of college students. Enrollment data from the colleges is another source of this information. Based on data from the colleges, it is clear that college enrollment has been flat since 1980. In 2005, while total enrollment was 4,994, only 4,719 students were residing in Northfield (this number represents total enrollment less students who are not on campus).

In 2000, college students made up 28% of Northfield's population. With such a large percentage of the population, the student population has a major affect on Northfield's housing, retail and transportation environments. As of today, neither college is forecasting enrollment growth in the future, and both colleges have announced their goal of providing housing to all students on campus. Yet, this population will remain an important part of Northfield's character and will continue to affect the housing, retail and transportation environments.

TABLE 2.1 GENERAL POPULATION OF NORTHFIELD BY YEAR

Year	Total Population	Population Increase	% Growth From Last Census	Population Excluding College Students	Population Increase Excluding College Students	% Growth Based on Non-Student Population
1960	8,707	1,220	16%	5,834	N/A	N/A
1970	10,235	1,528	18%	6,435	601	10%
1980	12,562	2,327	23%	7,560	1,125	17%
1990	14,684	2,122	17%	9,746	2,186	29%
2000	17,147	2,463	17%	12,339	2,593	27%

Source: 2000 U.S. Census Bureau

C. Age of Population

Age is one of the most important characteristics of a population because needs and consumption patterns vary with age, thereby making age data valuable in projecting community needs. The proportion of a community's population at various ages has implications for current and future needs. Housing, transportation and recreation are three major areas where age affects needs and usage.

Each life stage is associated with a unique profile of the consumption of goods and services. Minnesotans can drive at 16 and must attend school until 18. Most Minnesotans establish their own households in their early to mid-20s; the median age for giving birth is about 30. Those over 65 can retire with full social security benefits (this age will rise for younger Americans) and most have empty-nests at 50.

In Table 2.3, the median is used as a measure of age. Students at St. Olaf and Carleton Colleges account for about 28% of Northfield's population (See Table 2.2). These students are between 18 and 24 years of age. With such a large portion of the city's population in this age group, median age in Northfield is 23 years, which is low when compared to Rice and Dakota Counties and Minnesota (See Table 2.3). However, Northfield looks much more like its neighbors when the percentage of 25 to 44 year-olds is examined. Approximately 34% of Northfield's population consists of 25-44 year-olds. The percentage in this age group ranges from 31% to 37% for Cannon Falls, Dundas, Faribault, Farmington, Hastings and Red Wing.

TABLE 2.2 COLLEGE STUDENT POPULATIONS BY YEAR

Year	Students	Percentage of Student Population
1980	5,002	40%
1990	4,938	34%
2000	4,805	28%
2005	4,994	

Source: 2000 U.S. Census Bureau; 2005 student data from St. Olaf and Carleton Colleges

TABLE 2.3 MEDIAN AGE BY AREA

Geographical Area	Median Age (in years)
Northfield	23.0
Rice County	32.9
Dakota County	33.7
Minnesota	35.4

Source: 2000 U.S. Census Bureau

D. Race and Ethnicity

With an increase in the number of immigrants coming to the United States since the mid 1980s, race/ethnicity began to change quickly. Although the population of foreign-born individuals is a small percentage of Northfield's population (6.2%), Northfield has a higher percentage of foreign-born than Minnesota (5.3%), Dakota County (5.1%) or Rice County (4.8%). (Foreign-born individuals are 11.1% of the U.S. population.) See Table 2.4 for detailed information.

TABLE 2.4 RACE AND ETHNICITY BY AREA

Race	Northfield		Rice County	Dakota County	Minnesota
	#	%	%	%	%
White non-Hispanic	15,324	89.4	90.5	90.0	88.2
Black	154	0.9	1.3	2.3	3.5
American Indian	58	0.3	0.4	0.4	1.1
Asian	405	2.4	1.5	2.9	2.9
Hispanic	982	5.7	5.5	2.9	2.9

Source: 2000 U.S. Census Bureau (All racial/ethnic groups based on one race except for Hispanics who can be of any race.)

In the 2000 census, for the first time Americans could declare themselves to be of more than one race. Only 2% of Northfield's population reported they were of more than one race. In the United States, 2.4% listed themselves as being of two or more races, while only 1.7% of Minnesotans said they were of two or more races.

With the rapid growth of the Hispanic population, which is now the largest minority population in the United States, it is now customary to first categorize the population into ethnicity by declaring oneself as White non-Hispanic or Hispanic. Northfield is similar to Rice County, Dakota County and Minnesota in that its population is overwhelmingly White non-Hispanic (89.4%). In the United States, people who are White non-Hispanic made up 69.1% of the population in 2000. Hispanic people may be of any race, while the population for the other racial/ethnic groups in the table above represents those who reported themselves to be of one race. Northfield, like Rice County, has a higher percentage of Hispanic people than Dakota County or Minnesota. (The U.S. percentage for Hispanic people is 12.5%)

Northfield is more similar to Dakota County and Minnesota than to Rice County in the percentage of Asian people. The percentage of Blacks and American Indians was very small in Northfield in 2000.

E. Income

Three different measures of income are reported by the U.S. Census Bureau. For communities, income data are available only in the decennial censuses. Thus, the

most recent data for Northfield were collected in 2000 and represent 1999 income (See Table 2.5).

Household income represents the income of all households, whether they have but one person or contain many people. Family income represents the income of families, which must have at least two persons who are related by marriage, blood or adoption according to Census definitions. Median family income is always higher than median household income. Per capita income is calculated by dividing all income by the total population.

Per capita income in Northfield is affected by the large student population. As the data show, Northfield has lower per capita income than Rice County and Minnesota. Median household income for Northfield, Rice County and Minnesota is similar. Family income is the measure that is least affected by the college population. Median family income clearly shows that Northfield is an affluent community, especially in the Rice County and Minnesota context. However, when compared to Dakota County, the difference between a metropolitan county and a non-metropolitan place becomes apparent.

TABLE 2.5 MEDIAN INCOME (1999) BY AREA

Geographical Area	Household Income	Family Income	Per Capita Income
Northfield	\$49,972	\$61,055	\$18,619
Rice County	\$48,651	\$56,407	\$19,695
Dakota County	\$61,863	\$71,062	\$27,008
Minnesota	\$47,111	\$56,874	\$23,198

Source: 2000 U.S. Census Bureau

F. Education

Educational attainment for the population age 25 and over is another measure of a population's socio-economic status. The percent of persons with a bachelor's degree or more in Northfield helps give Northfield its intellectual atmosphere. With 43% of its population age 25 and older holding a bachelor's degree, Northfield has a high level of educational attainment even when compared to Dakota County (See Table 2.6).

TABLE 2.6 EDUCATIONS BY AREA

Geographical Area	Bachelor's Degree or Higher
Northfield	43.0%
Rice County	22.4%
Dakota County	34.9%
Minnesota	27.4%

Source: 2000 U.S. Census Bureau

G. Households

People reside in households or in group quarters. Group quarters include dormitories, nursing homes, group homes, correctional facilities and the like. Because Northfield has a large college population, it has a large percentage of its population in group quarters. In 2000, 27.5% of the population or 4,713 persons lived in group quarters. Twenty-five percent lived in dormitories or other student housing while 2.5% lived in institutions.

Over the past 50 years, the number of households also increased rapidly in Northfield. Like the state and nation, household growth was especially rapid during the 1970s as the large Baby Boom generation entered the household formation years. Also, like the state and nation, the number of persons per household has declined in Northfield. The decline in persons per household is the result of fewer children per family and the increase in one-person households. In 2000, 27.5% of Northfield's households had only one person. This percentage is slightly higher than Minnesota's percentage of one-person households. See Table 2.7 for detailed information.

TABLE 2.7 NORTHFIELD HOUSEHOLDS BY YEAR

Year	Households	Persons Per Household
1960	2,031	2.92
1970	2,285	2.89
1980	3,170	2.60
1990	4,056	2.49
2000	4,909	2.53

Source: 2000 U.S. Census Bureau

In 2000, the average of persons per household in Northfield was similar to the Minnesota number but it was lower than that of Rice County and Dakota County (See Table 2.8).

TABLE 2.8 PERSONS BY HOUSEHOLDS BY AREA

Geographical Area	Persons Per Household
Northfield	2.53
Rice County	2.65
Dakota County	2.70
Minnesota	2.52

Source: 2000 U.S. Census Bureau

H. Employment Characteristics

Employment or the number of jobs is closely related to household growth for most communities. Jobs must be in a community or within reasonable driving time/distance in order for a community to grow. Retirement communities are the only exception to this rule.

The census provides data on the industry of employment for Northfield residents (See Table 2.9). However, this is different from the number of jobs located in Northfield. The Minnesota Department of Trade and Economic Development reports the number of jobs located in Minnesota communities.

As the following table shows, nearly half (45.7%) of all Northfield residents were employed in education, health or social services at the time of the 2000 census. Manufacturing (10.9%) was the second largest sector of employment in 2000. In Minnesota 20.9% were employed in education, health or social services and 16.3% were employed in manufacturing.

Arts, entertainment, recreation, accommodation, and food services were the third largest sector of employment (8.8%) among Northfield residents and retail trade was the fourth largest sector of employment (7.0%). In Minnesota 7.2% were employed in arts, entertainment, recreation, accommodation, and food services and 11.9% were employed in the retail sector. Table 2.10 shows the 15 largest employers in Northfield, and some interesting trends and points to some future challenges. For example, with St. Olaf and Carleton Colleges anticipating no enrollment growth, Northfield's first and third largest employers are not likely to have employment growth in the future. Any rapid future growth in Northfield would mean either that job growth in the community had accelerated or more residents are commuting to the Twin Cities Metro Area.

TABLE 2.9 EMPLOYMENTS OF RESIDENTS BY INDUSTRY

Employed Civilian Population (16 years+)	Number Employed	Percent of Total Employed
Agriculture, Forestry, Fisheries	107	1.2%
Construction	358	4.0%
Manufacturing	980	10.9%
Wholesale Trade	258	2.9%
Retail Trade	631	7.0%
Transportation, Warehousing; Utilities	331	3.7%
Information	234	2.6%
Finance, Insurance, Real Estate	255	2.8%
Professional, Scientific, Management, Administrative, Waste Management	505	5.6%
Educational, Health, Social Services	4,101	45.7%
Arts, Entertainment, Recreation, Accommodation; Food Services	793	8.8%
Other services	242	2.7%
Public administration	184	2.1%
Total	8,979	100.0%

Source: 2000 U.S. Census Bureau

TABLE 2.10 FIFTEEN LARGEST EMPLOYERS

Employer	Products/Services	2007 Employee Count
St. Olaf College	Colleges & Universities	861
Malt-O-Meal	Cereal Breakfast Foods	830
Carleton College	Colleges & Universities	690
Northfield Public Schools ISD #659	Elementary and Secondary Schools	500
Multek Flexible Circuitry	Printed Circuit Boards	430
McLane Minnesota	Grocery Wholesale	450
Northfield Hospital	General Medical & Surgical Hospitals	340
City of Northfield	Government Offices	132
Allina Medical Clinic	Medical	150
Three Links Care Center	Skilled Nursing Care Facilities	180
Cub Foods	Supermarket	175
Cardinal Insulated Glass	Flat Glass	140
Laura Baker School	Schools & Educational Services	142
Target	Discount Department Store	120
Northfield Retirement Center	Skilled Nursing Care Facilities	141

Source: City of Northfield

I. Commuting

In 2000, Northfield was still primarily a “free standing” community. Of the 8,820 workers 16 years and over, 8,519 lived in Rice County, a non metro county, and 301 lived in Dakota County, a metro county. Seventy percent of Northfield’s workers who lived in Rice County worked in their place of residence, that is, Northfield (See Table 2.11). This is a high percentage. Of the 301 workers residing in Dakota County, 50% worked in the metro area.

From 1990-2000, the number of Northfield workers residing in Rice County increased by 1,317. Of these, 498 worked in a metro area. This means that 38% of the growth in workers was due to commuters. It is not known how many of these workers moved from the Metro area to Northfield and how many were Northfield residents who found a job in a metro area.

The percentage of workers commuting to a metro area increased from 18% to 21% during the 1990s. However, the importance of local job development is illustrated by the 62% of additional Northfield, Rice County workers who found employment in the Northfield area as compared to a metro area.

TABLE 2.11 PLACE OF WORK - NORTHFIELD RESIDENTS*

	Workers	Work in Place of Residence		Work in a Metro Area	
1990	7,202	5,238	72.7%	1,311	18.2%
2000	8,519	5,988	70.3%	1,809	21.2%

Source: 1990 & 2000 U.S. Census Bureau

*Rice County portion only

Northfield is located within driving distance of the Minneapolis-St. Paul (Twin Cities) Metropolitan Area and Rochester Metropolitan Area. Based on the highway system, it is safe to assume that most Northfield commuters were working in the Twin Cities Metro Area.

Table 2.12 presents data for some of Northfield’s neighboring communities in southeastern Minnesota. Cannon Falls, a much smaller community, has a high percentage of its workers working in a metro area. Because Cannon Falls has easy highway access to both the Twin Cities and Rochester, workers are flowing to both metro areas. The small commuter population in Owatonna may also be split between the Twin Cities and Rochester.

TABLE 2.12 PLACE OF WORK - OTHER COMMUNITIES

	Workers	Work in place of Residence		Work in a Metro Area	
Cannon Falls	1,995	931	46.7%	758	38.0%
Faribault	9,584	6,107	63.7%	1,483	15.5%
Northfield*	8,519	5,988	70.3%	1,809	21.2%
Owatonna	11,848	9,553	80.6%	626	5.3%
Red Wing	8,055	6,290	78.1%	1,157	14.4%

Source: 1990 & 2000 U.S. Census Bureau

*Rice County portion only

Data in this table also show that the Twin Cities commuter shed extends to Faribault. While Faribault’s percentage of workers working in a metro area is smaller than in Northfield, the percentage is large enough to suggest that in the future, commuters settling in Rice County may be as likely to select the Faribault area as the Northfield area. This becomes a consideration when thinking about future population growth.

TABLE 2.13 PLACE OF WORK - SELECTED PARTS OF NORTHERN RICE COUNTY

	Workers	Work in a Metro Area	
		#	%
Lonsdale City	811	440	54.3%
Northfield City*	8,519	1,809	21.2%
Northfield Township	433	102	23.6%
Bridgewater Township	1,058	289	27.3%
Dundas City	331	86	26.0%

Source: 2000 U.S. Census Bureau

*Rice County portion only

Commuting can also be examined in northern Rice County (See Table 2.13). Lonsdale was a community of commuters in 2000 when it had a population of 1,494. Its population is estimated to have increased to 2,684 in 2006. The household growth associated with this population increase is likely to be almost totally from workers commuting to the Twin Cities Metro Area.

Northfield residents are slightly less likely to be commuters than workers in the adjacent townships and Dundas, but even in these adjacent areas, commuting is still modest. Looking at Rice County, commuters have three options: Lonsdale, Northfield-Dundas and Faribault.

J. Population and Household Projections

Population grows when births exceed deaths and more people move into a community than move out. Population growth is almost always accompanied by an increase in the number of housing units, which is influenced by land use, particularly the availability of land to develop for residential purposes or the redevelopment of underutilized sites. Projections in this chapter are based on the potential demands and availability of land.

Population

There are three common methods for projecting population. These are: the cohort-component or cohort survival method, the linear regression/extrapolation method and the housing unit method. The cohort-component method is based on the age-sex composition of the population in the base year. This method is sensitive to the differences in age-sex specific mortality and migration rates and age-specific fertility rates. While this method is complex, it is the preferred method and yields important age data, which is very important for planning.

The housing unit method is very simple and works reasonably well when the number of housing units is fixed. However, it does not provide any age data.

Linear regression/extrapolation uses past growth rates to project future growth. This method works well if the population has no anomalies and the factors that have driven growth in the past remain the factors in the future. However, this method does not yield age projections.

The population projections presented in this chapter were prepared using the cohort-component method, sometimes called the cohort-survival method. The methodology is explained in greater detail at the end of this chapter. Local mortality rates are likely to follow the state pattern while fertility rates are subject to more local variation. It is migration rates, however, that are most subject to local variation, such as job growth, cost and availability of housing, perception of a community and whether the area is close to a larger population area that is suburbanizing.

Nonetheless, some state and national mobility trends will affect local migration rates. For example, the probability of moving is related to age. Every year, 20-24 year-olds are more likely to move than any other age group. Nationwide, 30% of 20-24 year-olds move each year. The next most mobile age group is 25-29 year-

olds. In this age group, 28% move each year. The high mobility among these two groups means that 21% of 1-4 year-olds will move each year. However, after age 29, mobility drops. Nearly 20% of 30-34 year-olds move each year, for example, but that percentage drops to 9% by age 45-49 years and to less than 5% by age 65-69 years. As the population ages over the next twenty years, we can expect that migration will also decrease. In fact, annual mobility is lower today than at any time since 1950.

The population projections in this chapter show a total population for Northfield as well as projected age groups (See Table 2.14). For planning purposes, the total population numbers can be rounded to the nearest hundred. In other words, 2010 can be rounded to 20,300 and 2020 can be rounded to 23,600.

As the age projections show, all age groups are larger in 2020 than they were in 2000. However, a couple of age groups are larger in 2010 than they are in 2020. This occurs because the size of the population (cohort) moving through those specific age groups is different in the different time periods. Some changes in age are worth noting. Because no growth is projected in St. Olaf and Carleton Colleges' enrollments, the percentage of population in the college-age groups (15-19 years and 20-24 years) will decrease from 2000 to 2010. However, the college population in Northfield will keep Northfield's population younger than Minnesota's population throughout the projection period.

TABLE 2.14 POPULATION PROJECTIONS BY AGE GROUP

Age	2000	2010	2020
0-14	2,880	3,160	3,624
15-19	2,636	2,985	3,068
20-24	3,463	3,949	3,938
25-34	1,569	1,945	3,049
35-44	2,039	1,934	2,290
45-54	1,783	2,267	2,056
55-64	970	1,807	2,207
65-74	776	989	1,770
75-84	665	657	796
85+	366	591	818
Total	17,147	20,284	23,616

Source: Hazel Reinhardt Consulting Services

The percent of population 65 years and over will increase from 10.5% in 2000 to 11.0% in 2010 and to

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14.3% in 2020. This increase in the senior population reflects the movement of the Baby Boom generation into the ranks of the elderly starting in 2011. During this same time, Minnesota's senior population will increase from 12.1% to 16.1% in 2020. The age projections also show a major generational shift from 2010 to 2020. At the very time that the Baby Boomers are moving into the ranks of the elderly, their offspring, the Echo Boom or Gen Y, will be adults. Gen Y will be 25-44 years of age in 2020 and will be a large percentage of Minnesota's and Northfield's populations.

These generational shifts mean that three age groups will double in size from 2000-2020 (note: college students have been removed from these projections). These three age groups are: 25-34 year-olds, 55-64 year-olds and 65-74 year-olds. The change in the age profile of Minnesota and Northfield is likely to change the demand for housing of certain types. For example, the next 15 years will see an increasing demand for housing options for empty-nesters. Nationwide, more retirees are choosing university and college towns as places to retire. This trend may grow in Northfield as well.

To put the Northfield projections into context, it is helpful to look at Northfield's projected rate of change compared to Rice County, Dakota County and the Twin Cities Metro Area (See Table 2.15). While it is normal for smaller populations to show a faster rate of growth, these percentages, especially the ones for 2010-2020, show rapid growth for Northfield.

TABLE 2.15 RATE OF POPULATION CHANGE BY AREA

Geographic Area	1990-2000	2000-2010	2010-2020
TC Metro (MN part)	16.8%	13.5%	9.3%
Dakota County	29.3%	18.9%	11.2%
Rice County	15.2%	13.9%	12.2%
Northfield City	16.8%	18.3%	16.4%

Source: Hazel Reinhardt Consultant Services

The population projections completed by Hazel Reinhardt in 2005 can also be compared to those made by the Minnesota State Demographer in the 2001 Comprehensive Plan (See Table 2.16).

TABLE 2.16 COMPARISON OF PROJECTIONS BY AREA

Geographic Area	2000	2006 Est.*	2010		2020	
			State* /MC	Current**	State* /MC	Current**
Northfield	17,147	19,413	19,601	20,284	21,944	23,616
Rice	16,590		18,861		21,004	
Dakota	557		740		940	

* Source: Minnesota State Demographer (The Metropolitan Council made the population projection for the Dakota County part of Northfield)

**Source: Hazel Reinhardt Consultant Services

Households

The projected number of households in this chapter is the result of the projected population and the proportion of people in each age and sex group who are projected to be householders (heads of household).

As shown in Table 2.17, the projections of persons per household will increase in numbers of members from 2000-2010 and then decline in numbers of members from 2010-2020 as the Baby Boom population ages.

TABLE 2.17 HOUSEHOLD PROJECTIONS BY AGE OF HEAD*

Age of Head	2000	2010	2020
15-24	427	485	490
25-34	777	963	1,509
35-44	1,162	1,102	1,305
45-54	1,013	1,288	1,168
55-64	560	1,043	1,273
65-74	460	586	1,050
75-84	385	380	461
85+	125	202	280
Total	4,909	6,049	7,536
Persons per Household	2.53	2.57	2.51

*As part of this project, population and household projections were made for Dundas also.

Methodology—Population Projections

The 2000 Census population by age and sex was the starting point. Assumptions were made about the rates of mortality, fertility and migration during each ten-year period. The population at the end of each time period reflects the expected number of survivors, births during the period and additions or subtractions attributable to migration. The projected population for 2010 becomes the basis for the next cycle of projection calculations for 2020.

Mortality Assumptions: Survival rates were based on rates developed by the Minnesota State Demographer. These rates show a slight increase in survival between 2000 and 2020. Most of the improvement in survival rates occurs at the older ages.

Fertility Assumptions: Rice County age-specific fertility rates were calculated for 2000-2004. These age-specific rates were applied throughout the projection period.

Migration: Migration rates vary by age and sex. The rates used in the projections are net rates. If more people move in than move out, there is net in migration. If more people move out than move in, there is net out migration.

The age-specific net migration rates between 1990 and 2000 were calculated. These rates were applied during each projection cycle. For example, Northfield had net in migration in all age-sex groups except for females 20-24 years, 25-29 years and 75-79 years. The largest net in migration rates occurred among 30-34 years olds. Males increased 72% over the expected population (survivors) and females increased 60% over the expected population.

College Students: A constant college enrollment was assumed throughout the projection period based on information from the two colleges. Students enrolled at St. Olaf and Carleton Colleges were removed from the 15-19 and 20-24 year-old age groups in 2000 and 2010 before mortality rates, migration rates and fertility rates were applied. A population equal to the 2005 enrollment was added back to the appropriate age-sex groups in the 2010 and 2020 projections. This means that college students are shown in the appropriate age groups in the projections but the college population did not affect deaths, births or migration into or out of its respective age groups in Northfield. The number of student residents in Northfield was 4,719 in the fall of 2005.

Methodology—Household Projections

The household projections assume that the total householder rate in each age-sex group will remain at its 2000 rate. For example, in 2000, 57% of all 35-44 year-olds were householders. The assumption of a constant rate of householders may underestimate the number of householders age 85+ in the future as a national trend would indicate that more of this age group will remain in

households rather than residing in group quarters (nursing homes).