Appendix E

TRANSPORTATION POLICY PLAN DEMOGRAPHICS November 2004

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Introduction

The size and demographic characteristics of a population are important determinants of travel behavior. This appendix provides background data on demographic trends and forecasts that serve as a quantitative context for assessing the region's future transportation needs and developing plans to meet them.

Study Area

The Metropolitan Council has legislative jurisdiction over seven counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington. As such it has developed an extensive database, including forecasts, maps and analysis. For that reason, the appendix data will focus mostly on this area. The Twin Cities region as defined by the Minnesota Department of Transportation for transportation planning also includes Chisago County. Overall population, household and employment trends and forecasts are provided for Chisago County. Due to that county's small size, just 41,101 people in 2000 or 1.5 percent of the eight-county area, its impact on overall area demographics is negligible.

Because of commuter ties from the outlying areas to the seven-county area, basic trend and forecast data are also provided for the 15 counties in which at least 5 percent of the population commutes to the Twin Cities seven-county area to work (based on 2000 census data). Additional data for the other 15 counties is provided as appropriate. Map 1 below shows the study area for this appendix.



Overall Growth Trends and Forecasts

Population, Households and Employment

Figures 1-5 and Table 1 below show population, household and employment trends in the seven-county Twin Cities metro area, the eight-county Twin Cities transportation planning region and the 22-county, five percent commuter shed (with separate tabulations for the 19 Minnesota counties in this area). The data shows the dominance of the seven-county area, making up about 81 percent of the population and 88 percent of the jobs in the 22-county area in 2000. This share had slipped slightly over the past three decades, due to higher growth rates in the surrounding counties. The outlying counties had their biggest population growth relative to the core seven counties in the 1970s as part of what has been labeled the rural renaissance. This trend reversed itself in the 1980s, with the seven metro counties gaining in share of population. The seven-county area's decline in share returned in the 1990s and this slow decline in share is projected to continue. Despite a lower rate of growth, the seven metro counties are still expected to have 80 percent of the population in the 22-county area in 2030. The seven-county area will add over 960,000 people between 2000 and 2030, compared to a growth of about 183,000 in the other 15 counties.

Population per household is slightly higher in the surrounding counties, mostly due to lower household size in Hennepin and Ramsey Counties. Household size dropped sharply in the 1970s and has been slowly dropping since then throughout the 22-county area. These modest declines are projected to continue.

There were 1.57 jobs for every household in 2000 in the seven-county metro area, much higher than in the remainder of the commuter shed (0.98). Higher job-to-household ratios in Hennepin and Ramsey Counties boost the region's average, not only due to large employment concentrations in the central cities, but also because many older suburbs have developed strong job bases along with their residential development. Among the six other surrounding counties within the MSA, the 2000 job-to-household mix was highest in St. Croix County (1.10), with the other counties on a par with the other five counties inside the metro area. Among the other nine commuter-shed counties, jobs averaged from 0.7 per household in Kanabec and Sibley Counties, up to 1.3 in Goodhue and McLeod. Lower job-to-housing ratios correlate with higher levels of out-of-area commuting, as will be discussed in a later section of this report.

Job-to-household ratios have increased both inside and adjacent to the metro area since 1970, with the infusion of the large baby boom generation into the work force and the increase in the percentage of females who are employed. As the baby-boom generation ages, the seven-county area's ratio of jobs to households is expected to decline from its year-2000 peak, back down to its 1980 level by 2030. Long range forecasts of jobs are not available for the outlying counties.

Tables 13, 14 and 15, showing the historic and forecasted population, households and employment for each of the 22 counties, are included at the end of this appendix.



Figure 1 Twin Cities Metropolitan Area Population Forecasts

Figure 2 Twin Cities Metropolitan Area Population Growth Forecasts



Figure 3 Twin Cities Metropolitan Area Employment Forecasts



Figure 4 Twin Cities Metropolitan Area Employment Growth Forecasts



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Table 1 Population & Household Trends in the 7-County Metro Area, 8-County MnDot Planning Area & 5% Commuter Shed							
POPULATION TOTALS	<u>1970</u>	<u>1980</u>	<u>1990</u>	2000	<u>2010</u>	<u>2020</u>	<u>2030</u>
7-County Metro Area	1,874,612	1,985,873	2,288,729	2,642,062	3,005,270	3,334,160	3,607,660
8-County (7 Metro + Chisago)	1,892,104	2,011,590	2,319,250	2,683,163	3,056,910	3,395,330	3,677,200
19-MN Co's in commuter shed	2,149,465	2,327,616	2,668,070	3,109,186	3,557,190	3,960,690	4,297,050
22-County 5% commuter shed	2,237,137	2,434,378	2,785,859	3,250,464	3,723,688	4,143,499	4,501,183
Share of 22-County Area	<u>1970</u>	<u>1980</u>	<u>1990</u>	2000	2010	2020	2030
7-County Metro Area	83.8%	81.6%	82.2%	81.3%	80.7%	80.5%	80.1%
Chisago County	0.8%	1.1%	1.1%	1.3%	1.4%	1.5%	1.6%
11 other MN Co's in com. shed	11.5%	13.0%	12.5%	13.1%	13.4%	13.6%	13.9%
3 Wisc. Co's in 5% com. shed	3.9%	4.4%	4.2%	4.3%	4.5%	4.4%	4.5%
Population change		<u>1970 - 80</u>	<u>1980 - 90</u>	<u>1990 - 00</u>	2000 - 10	2010 - 20	2020 - 30
7-County Metro Area		111,261	302,856	353,333	363,208	328,890	273,500
Chisago County		8,225	4,804	10,580	10,539	9,530	8,370
11 other MN Co's in com. shed		58,665	32,794	77,203	74,257	65,080	54,490
3 Wisc. Co's in 5% com. shed		19,090	11,027	23,489	25,220	16,311	357,684
HOUSEHOLD TOTALS	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
7-County Metro Area	573,634	721,357	875,504	1,021,459	1,197,580	1,361,870	1,491,630
8-County (7 Metro + Chisago)	578,831	729,704	886,055	1,035,913	1,216,690	1,385,430	1,519,250
19-MN Co's in commuter shed	654,144	833,789	1,007,913	1,189,253	1,403,880	1,605,460	1,767,350
22-County 5% commuter shed	679,503	869,167	1,049,348	1,241,932	1,468,319	1,680,831	1,850,843
Population per household*	<u>1970</u>	<u>1980</u>	<u>1990</u>	2000	2010	2020	2030
7-County Metro Area	3.27	2.75	2.61	2.59	2.51	2.45	2.42
Chisago County	3.37	3.08	2.89	2.84	2.70	2.60	2.52
11 other MN Co's in com. shed	3.42	3.04	2.86	2.78	2.67	2.57	2.50
3 Wisc. Co's in 5% com. shed	3.43	3.03	2.86	2.75	2.65	2.53	2.48
EMPLOYMENT TOTALS	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>	2030
7-County Metro Area	779,000	1,040,208	1,282,583	1,600,348	1,805,700	1,978,000	2,117,700
8-County (7 Metro + Chisago)	na	1,046,086	1,290,947	1,613,015	na	na	na
19-MN Co's in commuter shed	na	1,132,336	1,401,986	1,767,044	na	na	na
22-County 5% commuter shed	na	1,159,995	1,435,849	1,816,683	na	na	na
Share of 22-County Area 7-County Metro Area Chisago County 11 other MN Co's in com. shed 3 Wisc. Co's in 5% com. shed	<u>1970</u> na na na na	<u>1980</u> 89.7% 0.5% 3.5% 1.1%	<u>1990</u> 89.3% 0.6% 4.0% 1.2%	2000 88.1% 0.7% 4.7% 1.5%	<u>2010</u> na na na na	<u>2020</u> na na na na	<u>2030</u> na na na
Employment change		<u>1970 - 80</u>	<u>1980 - 90</u>	<u>1990 - 00</u>	2000 - 10	<u>2010 - 20</u>	<u>2020 - 30</u>
7-County Metro Area		261,208	242,375	317,765	205,352	172,300	139,700
Chisago County		na	244,861	322,068	na	na	na
11 other MN Co's in com. shed		na	269,650	365,058	na	na	na
3 Wisc. Co's in 5% com. shed		na	275,854	380,834	na	na	na
Jobs per household 7-County Metro Area Chisago County 11 other MN Co's in com. shed 3 Wisc. Co's in 5% com. shed	<u>1970</u> na na na	<u>1980</u> 1.44 .70 .83 .80	<u>1990</u> 1.46 .79 .91 .87	2000 1.57 .88 1.00 .96	<u>2010</u> 1.51 na na na	<u>2020</u> 1.45 na na na	<u>2030</u> 1.42 na na

*Includes group quarters population

na = not available.

Source: Population and household data from 1970 to 2000 from the U. S. Census. Employment data from that period primarily from MN DEED, U.S. BLS, WI Dept. of Workforce Development. Population, household and employment forecasts for the seven-county area from the Metropolitan Council's *Regional Development Framework*, adopted on January 14, 2004. Other forecast data prepared by the demographic units of the Minnesota and Wisconsin Departments of Administration.



Household and Employment Trends Since 2000

The growth patterns for households shown in Table 1 have not changed much since 2000; the sevencounty area is growing just slightly above the annual rate of the 1990s, while the other 15 counties have seen a more substantial increase in their growth rate (see Table 2). Since 2000, they have been adding households at about twice the rate of the seven-county area. Recent employment trends may not be a good indicator of longer-range trends because of the national economic downturn that also pulled down employment levels in the Minneapolis-St. Paul area. Although the recession has been officially defined as running from March-November 2001, employment gains have been sluggish in this region as they have nationally, and the seven-county area has yet to return to its pre-recession level. Hennepin and Ramsey Counties, as the largest employment centers, were hit hardest in terms of net job losses. At the same time, other metro counties, as well as some of the other commuter-shed counties, had net gains in employment over the period. The job growth rate for counties outside the seven-county region, despite being higher than the region's, has nevertheless failed to shift the jobs/housing balance significantly.

		JOD CIOWIII		
	Grov	<u>wth</u>	Average Percentag	Annual e Growth
Area	1990 to 2000	2000 to 2002*	1990 to 2000	2000 to 2002*
Households				
7 metro counties	145,955	51,650	1.6%	1.7%
15 other counties	46,629	23,400	2.4%	3.4%
22 county commuter shed	192,584	75,500	1.7%	2.0%
Employment				
7 metro counties	317,765	-11,739	2.2%	2%
15 other counties	63,069	9,249	3.5%	1.4%
22 county commuter shed	380,834	-2,490	2.4%	

Table 2	
Household and Job Growt	ł

*The household figures for the seven-county Metro Area are based on 2002 household estimates plus 2002 residential building permits reduced by 3 percent to account for vacant units. For the other 15 counties the household estimates are based on residential permits for 2000 through 2002 reduced by 3 percent.

Employment growth is measured as the difference between 4th quarter 1999 and 4th quarter 2002. The 2002 data do not include the three Wisconsin counties; however, those three counties accounted for less than 3 percent of the commuter-shed's employment in 2000.

Components of Growth

The components of growth for the seven-county area are shown in Table 3. The largest share of population growth in the seven-county area has historically been due to births exceeding deaths. This pattern did not change in the 1990s, but the net migration gain of about 135,000 was more than in any previous decade (with the possible exception of the 1880s). Except for the 1970s, when the area had a net migration loss of over 40,000 people, net migration gains had averaged about 100,000 per decade since 1950. This was less than half the amount attributable to natural increase (births in excess of deaths). Vital statistics data for the 1990s indicated a natural increase of about 218,000 for the past decade, up 14,000 from the 1980s. Assuming the decennial census counts are correct, net migration for the 1990s was up 36,000 from the 1980s.

Table 3
Twin Cities Seven-County Area Components of Growth
(numbers in 000s)

	Historic Data					Forecast Data		
	1950	1950 1960 1970 1980 1990					2010	2020
	to 1960	to 1970	to 1980	to 1990	to 2000	to 2010	to 2020	to 2030
Births	365	379	291	350	379	411	439	460
Deaths	119	137	138	145	160	182	233	304
Natural Increase	246	242	153	205	218	229	207	156
Net Migration	94	107	-42	98	135	134	122	118
Total Growth	340	349	111	303	353	363	329	274

Sources: Historic birth and death data from the Minnesota Department of Health, historic growth data from the U. S. Census. Forecasts from the Metropolitan Council, January 2004. Natural increase and net migration are derived from the other data.

The seven-county area forecasts were increased slightly from those prepared in 2002, based on local growth expectations. However, these higher expectations are consistent with somewhat higher numbers of births and fewer deaths occurring since 2000 than had been previously projected.

In the surrounding counties, the higher growth rates were mostly fueled by higher levels of inmigration. Although the outlying areas had a slightly higher percentage of children they also had a lower percentage of adults of childbearing age. Their somewhat larger family size, reflecting higher fertility rates, was offset by having fewer adults of childbearing age. The outlying area also had a slightly higher percentage of people over age 65 so their natural increase (births in excess of deaths) would be relatively the same as in the seven-county area.

Twin Cities Area Share of U.S. Growth

One way to determine the reasonableness of forecasts is to see how they compare to national forecasts prepared by the U. S. Census Bureau. Table 4 below shows the Twin Cities seven-county area and the 22-county area shares of U. S. growth trends going back to 1970 and forecasted to 2030.

Table 4	
Twin Cities Seven-County and 22-County Share* of U. S. Pop	ulation**
1970 to 2030	

Time Period	7-County Area	15 Other Counties in Twin Cities 22-County Commuter Shed
1970	.92%	.18%
1980	.88%	.20%
1990	.92%	.20%
2000	.94%	.22%
2010	.97%	.23%
2020	.99%	.24%
2030	.99%	.27%

*Twin Cities forecast data was prepared by the Metropolitan Council, Minnesota State Demographer and Wisconsin State Data Center,

**U. S. data from the U. S. Census counts from 1970 to 2000 and U. S. Census Bureau interim forecasts released in March of 2004.

The 2000 census showed a continuation of the Twin Cities seven-county area's long-term, but slow increase in its share of U. S. population. This was true going back to 1940, except for the 1970s, when metropolitan growth slowed nationwide. This growth pattern was similar in the remaining counties in the Twin Cities 22-county commuter shed, although their increase in share has been relatively greater. The 1970s also show differences in the 15 outlying counties, reflecting a national pattern of rural areas surrounding metropolitan areas growing faster in the 1970s than metro areas. That trend reversed in the 1980s, but both areas gained in share of population in the 1990s. Continued modest increase in the share of U. S. population is projected for the seven metropolitan counties and a somewhat greater increase in the share of U. S. population is projected for the surrounding counties. The more rapid increase in the seven metro counties' forecasted share of U. S. population projections for the 2000 to 2010 period was based on input from local communities, who are anticipating a greater share of their growth in the early part of the forecast period.

Housing Trends

Overall housing growth relates very closely to household growth. The housing stock would typically be about three percent higher since it would include vacant housing units (units without a household). There would also be additional housing constructed to replace housing units that are demolished or converted to other uses. The Metropolitan Council projects that about 15,000 units per decade will need to be constructed to replace lost housing units in the seven-county metro area. Similar factors would apply in the other outlying counties.

The key concern regarding housing is the mix of types that are built (single family, duplex, town house, apartment, etc.) because the densities vary greatly by type. Higher densities require less land for new development and thus a smaller area in which new services need to be extended. The higher densities may, however, increase the need to provide a higher level of service in some areas. Whether this would mean upgrading highway service or transit service would depend on the location of the development, the relative costs and projected usage. Higher densities can support higher levels of transit service. Table 5 below shows trends in single family and multifamily housing in the 22-county area and the Metropolitan Council's forecast of housing demand for these two housing types for the seven-county area. Forecasts for the other areas are not available.

				rable 5					
		ŀ	Housing ⁻	Trends and	d Forecas	sts			
	Percer	nt of Total	Housing	Units that a	are Singl	e Family D	etached		
	1990	1990 to 2000	2000	2000 to 2010	2010	2010 to 2020	2020	2020 to 2030	2030
7-County Area	58.3%	76.6%	60.4%	53.4%	58.8%	51.6%	57.9%	46.9%	56.9%
15 Outlying Co's	74.5%	80.4%	75.5%	na	na	Na	na	na	na
22-County Total	61.2%	77.6%	63.3%	na	na	Na	na	na	na

Table C

The large increase in single family growth in the 1990s was tied to the aging of baby boomers into ages where the single family home is the predominant choice. The projected downturn in single family share was already evident in permit data since the mid-1990s and has continued to drop since 2000, falling below the projected change for the decade.

Outlying counties have a substantially higher percentage of single family housing, reflecting their rural and small town character, and an abundant land supply. They are likely to show a similar trend toward increased multifamily housing as the seven-county area, although it may not be as strong as in the seven metro counties. This is because the outlying counties provide not only a more affordable single family option, but also lower density housing that is likely to be increasingly difficult to find in the seven-county area. In the 1970s much of the outlying county growth in the northern counties was scattered throughout rural areas. In most of these counties the trend has been reversed through policies guiding growth in or adjacent to cities and towns. Counties to the south have better (and more expensive) agriculture land and less demand for rural scattered site housing. The impacts on transportation differ greatly on the patterns of development related to housing type.

The most peripheral northern counties have a relatively large number of seasonal units, which would result in different travel patterns—less work commuting and more weekend travel. However, the number of housing units in these places is quite low compared to the seven metro area counties. The largest number of seasonal units in 2000 was 4,701 in Pine County, accounting for 31 percent of their housing. Polk County in Wisconsin had 4,240 seasonal units, or 20 percent of their housing stock. Kanabec and Mille Lacs Counties, with 13 percent and 14 percent of their housing stock, respectively, were the only other counties with over 5 percent seasonal units.

Metropolitan Area Comparisons

Another way to put the Twin Cities' growth trends and characteristics in context is to compare them to other similar metropolitan areas. Table 6 below ranks the Twin Cities 13-County Metropolitan Statistical Area's (MSA) historic growth rate among the 25 largest MSAs. The reason for using the MSA definition

is that it is based on a consistent set of criteria, applied nationally by the Census Bureau since 1950 to define metropolitan areas. The MSA is made up of whole counties, with the size of the central city(s) and commuting to the core counties being the primary criteria. MSAs not only provide a consistently defined set of metropolitan areas, but the Census Bureau tabulates all of their census data for MSAs so they can be readily compared and analyzed.

Time Period	Twin Cities M Percent	ISA Growth Rate Rank	Sunbelt and Western Metro Areas that Grew <i>Slower</i>	Northeastern Metro Areas that Grew <i>Faster</i>
1940 to 1950	19%	15th	None	WashBaltimore Detroit
1950 to 1960	29%	12th	San Francisco Portland	WashBaltimore
1960 to 1970	23%	13th	Portland	WashBaltimore
1970 to 1980	8%	13th	None	None
1980 to 1990	15%	12th	Denver Portland	WashBaltimore
1990 to 2000	17%	10th	Los Angeles San Diego San Francisco Tampa-St. Pete. WashBaltimore	None

Table 6

Twin Cities Metropolitan Area (MSA*) Population Growth Rate <u>Ranked</u> Among The 25 Largest Metropolitan Areas ** 1940 to 2000***

*MSA is the Metropolitan Area as defined by the U. S. Census Bureau. Over time the Twin Cities MSA has grown from four counties to thirteen; other metro areas have also grown. Growth rates have been calculated using the post-1990-census definition for determining the population. The same group of MSAs that were the 25 largest in 2000 using the post-1990 definition were used for all years. While changes were made to the Twin Cities MSA based on 2000 census data, other MSA definitions have changed. Two of the largest MSAs have been split. Los Angeles has had several of its parts established as separate MSAs. One is Riverside, which is larger and has grown faster than the Twin Cities. The other MSA to be split is Washington D. C.-Baltimore, which were joined in 1990 and have now been split again into two MSAs. Washington D.C. is still much larger than the Twin Cities, but neither area grew as fast as the Twin Cities in the 1990s. Kansas City and Sacramento drop off the list of 25 largest MSAs using the post-2000 definition. The overall impact is that neither the Twin Cities' MSA size nor growth rank change. **Uses the definition for the largest area within an urban region, e.g., the Los Angeles metro area have stated as a consolidated.

Uses the definition for the largest area within an urban region, e.g., the Los Angeles metro area here includes Anaheim, Riverside and several other smaller metro areas. The census defines these areas as consolidated metropolitan statistical areas (CMSAs). Using the 2000 data the CMSA no longer exists. * The same group of metro areas is used for all years, which are the 25 largest metro areas as of 2000 using the

*** The same group of metro areas is used for all years, which are the 25 largest metro areas as of 2000 using the post-1990 definitions. This combined Washington and Baltimore according to the post-1990 census definition, necessitating the addition of another metro area, which was Portland. Sacramento also replaced Milwaukee in 2000. These definitions are used because the tabulations of census characteristics to MSAs use the post-1990 geographic definitions.

The Twin Cities population growth rate has been near the middle among the 25 largest MSAs in every decade since 1940. The area has seldom grown faster than sunbelt or western metro areas, but it has outpaced all of the northern and eastern metro areas except Washington/Baltimore since 1950. The 1990s were the strongest growth decade during this time frame relative to the other large metro areas. Although the metro area's growth rate was just about the same in the 1990s as in the 1980s, it moved up to 10th in rank. We also grew at a faster pace than four sunbelt/west coast metros.

To help get a more comprehensive picture of the Twin Cities Metropolitan Area, Table 7 shows how the 13-County Metropolitan Statistical Area (MSA) compares to the other 24 MSAs among the 25 largest in population for a variety of demographic and socio-economic measures. A more detailed ranking of characteristics with data for the other 24 MSAs can be found at <u>www.metrocouncil.org</u> by selecting Resources, Reports and Data, then Census.

Ranked among the 25 Most Populous U.S. MSAs for Selected 200	00 Census Ch	aracteris	tics
Data Item Value Ran			
General Population and Household Characteristics			
Population size	2,968,806	15	
Population growth rate, 1990 to 2000	16.9%	10	
Average household size	2.56	15	
Average family size	3.15	13	
Mobility			
Same house in 2000 as 1995	54.3%	9	
Different house, same state	34.6%	16	
Different state	8.7%	11	
Abroad	2.4%	18	
Age Composition			
Median Age	32.9	13	
Percent under age 18	26.7%	7	
Percent 65 and over	9.6%	21	
Racial/Ethnic Minority (includes persons of Hispanic origin)			
2000 percent racial ethnic minority (includes multi-race)	15.3%	23	
1990 percent racial ethnic minority	8.7%	25	
Income			
Median family income, 1999	\$65,450	3	
Median household income, 1999	\$54,304	3	
Per capita income, 1999	\$26,219	5	
Percent of households earning less than \$35,000	29.4%	23	
Percent of households earning \$50,000 to \$99,999	37.9%	1	
Percent of households earning over \$150,000	5.9%	10	
Poverty			
Percent of persons below poverty level	6.5%	25	
Percent of persons below 1.75% of poverty level	14.4%	25	
Percent of families below poverty level	4.2%	25	
Percent of persons 65 and over below poverty level	6.1%	24	
Educational Attainment			
High school graduate or higher	90.6%	1	
Bachelor's degree or higher	33.3%	5	

Table 7
Twin Cities 13-County Metropolitan Statistical Area (MSA)
anked among the 25 Most Danulous LL S. MSAs for Selected 2000 Consuls Characterist

Data Item	Value	Rank
Labor Force Participation		
Unemployment rate	3.5%	25
Female participation rate	69.0%	1
Male participation rate	79.9%	1
Two-wage earner households	68.4%	1
Disability of Working Age Population		
Percent of population ages 16 to 64 with a disability	12.9%	21
Percent 16 to 64 with a disability that are employed	66.1%	1
Work Commute		
Mean commute time (in minutes)	23.7	21
Increase in commute time from 1990 (in minutes)	2.5	21
Drove alone, 2000	78.3%	8
Drove alone, 1990	75.9%	10
Percent using public transit, 2000	4.5%	11
Percent using public transit, 1990	5.2%	9
Percent in carpools, 2000	10.0%	18
Percent in carpools, 1990	11.3%	21
Density – Urbanized Area*		
Persons per square mile of land, 2000	2,671	18
Persons per square mile of land, 1990	1,956	23

Table 7 (continued)

*Urbanized areas are used to compare density rather than MSAs because the MSA is made up of whole counties and does not reflect the area of the developed portion of a metropolitan area. The Census Bureau defines Urbanized Areas based on density of development and contiguity with existing development.

The Twin Cities population is a little less mobile than average among the largest MSAs; 54.3 percent were living in the same house in 2000 as in 1995, ranking 9th among the 25 MSAs. Despite substantial increases in migration from abroad, the Twin Cities MSA only ranked 18th in the percentage of their population who moved from outside the U. S. between 1995 and 2000.

The 13-county MSA's population of 2,968,806, as enumerated in the 2000 census, ranked as the 15th largest metro area in the country. It is also about in the middle in terms of household and family size and median age. Although the Twin Cities' overall age ranked near the middle among the 25 largest MSAs, it had a relatively higher share of children and a lower share of elderly. The lower elderly share reflects some net out-migration to warmer retirement areas or to lake areas in Minnesota and Wisconsin.

In 1990 the Twin Cities MSA had the lowest percent racial and ethnic minority population among the 25 largest metro areas in the nation. In 2000 the Twin Cities moved up to 23rd, passing Pittsburgh and Cincinnati. This definition includes persons identifying themselves as Hispanic who were not already counted as a racial minority. In 2000, a person indicating white and another race was counted as a minority.

Income data indicates that the Twin Cities is a very prosperous region. It ranked third in median household and family incomes and fifth in per capita income. These high ranks come from having relatively few poor people and a very strong representation of households in the middle and upper-middle income groups rather than a high percentage of wealthy people. The poverty rate in the Twin Cities was 6.5 percent in 1999, lowest among the 25 largest MSAs. The Twin Cities also had the lowest rank in

families below poverty and in persons whose incomes were at or below 175 percent of the poverty level. The percent of elderly below the poverty line was just 6.1 percent and ranked 24th.

The prosperity is consistent with the high level of education of the population and very high level of labor force participation. The Twin Cities had the highest percentage of persons (over age 25) who were high school graduates and ranked fifth in college graduates. The area's unemployment rate was lowest in 2000, at just 3.2 percent, and workforce participation rates for both males and females ranked highest among the 25 largest MSAs. Our high rank in multiple earner families (68 percent) contributes to the region's low poverty rate and its healthy average income level. It also is a contributing factor to commuting levels, increasing the chances that at least one worker in a household will be employed at a location not in close proximity to the home.

Although concerns about transportation congestion have been rising steeply in the Twin Cities metro area since the mid-1990s, commute times, as self-reported in the 1990 and 2000 censuses, were lower than in most other large metro areas, ranking 21st in 2000. They did increase in the 1990s, by 2.5 minutes, but that also ranked 21st among the 25 largest MSAs. Despite the concerns about congestion, 78 percent of Twin Cities workers drove alone in 2000, up from 76 percent in 1990. Consequently carpooling and transit use dropped slightly. Just 4.5 percent of residents reported using public transit to go to work, but this figure still ranked about average, 11th among the 25 largest MSAs. Ten percent of commuters carpooled, ranking just 18th.

Population density is a useful measure because it relates to the type of transportation services that are possible in meeting an area's transportation needs. The higher the density, the greater the potential for providing transit service, and for the same reason, the higher the degree of auto congestion that is likely without adequate transit. Historically the Twin Cities Urbanized Area has always ranked very low in density, although the Twin Cities Urbanized Area did increase its density and rank among the urbanized areas of the 25 largest MSAs between 1990 and 2000. The area's population density increased from 1,956 people per square mile to 2,671 and it's rank rose from 23rd lowest to 18th. The likely reason for most of this change is that the Census Bureau used a more geographically precise definition of Urbanized Areas in 2000 (relying on block level data rather than entire cities as in the past). Although the area's density increased in the 1990s it was still relatively low in 2000. This is to be expected for a region that has two central cities serving as transportation focal points, and has no major barriers to expansion in any direction, as do many other urban areas.

Growth Trends within the Seven-County Metro Area

Housing and Employment Patterns

Transportation planning requires a very detailed level of geographic analysis, which utilizes a system of 1,200 travel analysis zones (TAZs) within the seven-county metro area. The following material provides a broad context of development patterns, trends and forecasts within the seven-county area useful for the more detailed TAZ forecasts used in transportation system planning.

Linking workers to their jobs has historically played the strongest role in influencing the metropolitan area's transportation system and it is likely to continue to be the major concern of transportation planning for the foreseeable future. Map 2 shows job concentrations in relation to the location of households in the developed portion of the region where most of the people and jobs are located. The map shows households occupying the greatest share of land and being more widely dispersed than jobs, which are concentrated and more centralized within the region.

Map 2 Housing and Employment Distribution, 2000



Planning Area and Quadrant Growth Trends

The pattern of housing growth in the 1990s is shown in Map 3. It shows that growth was fairly evenly distributed, with most of it occurring within the Metropolitan Council's Metropolitan Urban Service Area. Growth appears to be less intense due west of Minneapolis, Lake Minnetonka being a barrier to growth, and in most of the northeast quadrant where large lot development and wetlands act to limit large scale suburban development.



To show broad patterns of growth and to assist in its forecasting work, the Metropolitan Council has delineated two sets of areas that reflect the outward movement of development and its direction. Five roughly concentric planning areas have been delineated (Map 4) to show outward growth trends, and four quadrants (outside the central cities) allow for comparison of growth in different directions (Map 5).





The trends for total households show the shifting of primary growth from the developed suburbs to the developing suburbs. As the developed suburbs continue to fill up, an increasing share of the region's growth will need to be accommodated in the developing suburbs (see Figure 6 and 7). Even though more growth is expected in the central cities, rural centers and rural area, these areas combined will still account for a small share of the region's growth through 2030. The developed suburbs also show some decline in their employment growth over the forecast period, but they still account for a much greater share of the region's employment growth than their historic or projected share of household growth (see Figures 8 and 9). This is also true for the Central Cities, although their projected share of growth is expected to be fairly close to their 1990 to 2000 share of regional employment growth. Conversely, there is a relatively smaller share of employment and employment growth in the rural centers and rural area than there is for households. The relationship between jobs and households (workers) by planning area is evident when looking at jobs-per-household ratios (see Figure 10). The relationship between jobs and households is of obvious importance for its impact on commuting.



Figure 7 Twin Cities Metropolitan Area Household Growth Trends and Forecasts by Planning Area



mm 1066

Figure 8 Twin Cities Metropolitan Area Employment by Planning Area



Figure 9 Twin Cities Metropolitan Area Employment Growth Trends and Forecasts by Planning Area





Unlike many metro areas, the Twin Cities does not have any dominant direction of growth, although the two quadrants on the western side of the region have about twice the number of households and jobs as the eastern two quadrants (see Figures 11 and 12, and Figures 13 and 14). This pattern is not expected to change greatly over the next three decades, although a closer balance between jobs and households is projected among the sectors (see Figure 15). The reason for this is a steeper decline in job-to-household ratios in the Southwest quadrant than in the other three quadrants. Even though job ratio is projected to drop in the Southwest quadrant, it will still be well above the other three quadrants. One of the reasons for this declining ratio is the robust household growth that is anticipated in this area with the improved access in eastern Carver County and continued strong residential growth in northern Scott County. The overall decline in job-to-household ratios simply reflects the aging of the baby boom into retirement years, so that job growth will slow faster than household growth.



Figure 11 Twin Cities Metropolitan Area





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Figure 13 Twin Cities Metropolitan Area

Figure 14 Twin Cities Metropolitan Area Employment Growth Trends and Forecasts by Quadrant



mm 1076



Key Demographic Trends

Age Trends

Shifts in the size of different age groups are vital to understanding changing needs of a population. Change in age composition between 1990 and 2000 is shown in Figures 16 and 17. The extremely unbalanced age distribution that is the legacy of the low birth rates of the great depression and World War II, the post-war baby boom and the subsequent baby-bust will continue to cause sharp increases and decreases over time in the populations of specific age groups. Every single person in a 10-year age group will be gone from that age group in 10 years. Whether any age group shows growth or decline will mostly depend on how many people there were in the younger cohort 10 years earlier. Births, death and migration will also affect the size of all age groups. Births, obviously, will be the primary determinant of the number of people in the youngest age group while death rates have little impact except for the oldest age groups. Migration rates have historically been highest for young adults, but migration can result in growth or decline in the size of any population age group.

-All but four of the 18 five-year age categories identified by the 2000 census increased in numbers in the Twin Cities metro area between 1990 and 2000. The biggest gain was in ages 45 to 54, mostly the result of baby-boomers getting 10 years older and replacing the much smaller cohort born from 1935 to 1945 (depression and war babies).

Figure 16 Twin Cities Metropolitan Area Population by Age, 1990 and 2000



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-Persons aged 35 to 44 increased by 93,000. Again this was due to baby-boomers getting older. This group was born from 1955 to 1965, the peak baby-boom years. Its growth was less than the older baby-boomers because this age group was basically just replacing the large cohort that preceded it.

-The 10-to-14-year age group increased by nearly 48,000 and the 15-to-19 group grew by 41,000. This group is comprised mostly of the children of the baby-boomers and is somewhat larger than the group they are replacing.

-The biggest declines were for young adults. The 25-to-29-year age group lost nearly 38,000, the 30-to-34-year group lost nearly 19,000 and the 20-to-24-year group lost about 2,000. One might assume such losses were due to massive out-migration, but that is not the case. The reason for decline in the 20-to-34 group is that they are the smaller baby-bust generation born from 1965 to 1980. It is ironic that even though the region lost population in this age group, it is the age group responsible for the region growing more than was expected in the 1990's. This group lost 37,000 fewer people than were forecasted by the Metropolitan Council prior to the 2000 census. This is about the difference between the Council's forecast for 2000 and the U. S. Census count for 2000.

-The only ages to experience significant population loss in the previous decade were those between ages 20 and 34. This age group was expected to lose population because it is the small cohort that followed the post-war baby boom.

-The only other age group that lost population was the 65-to-69-year olds, losing about 2,000. Their decline was due more to out-migration than to a shift in cohort size or any increase in the death rate.

-Other groups showing sizable gains were the 5-to-9-year olds, the result of more births and in-migration, and the 75-to-84-year age group, a relatively large cohort born from 1915 to 1925, the result of a modest post-war baby boom after WWI. Birth rates also began to slow in the 1920s and plummeted with the onset of the depression at the decade's end, reducing the size of subsequent cohorts.

Age Forecasts

Forecasts of age composition have been an integral part of the Metropolitan Council's overall population forecasting work since its creation in 1967. A basic cohort-survival model is used to simply replicate how a population changes by applying age-specific birth, death and migration rates to the existing population's age structure. These rates for each 5-year age group were not altered significantly from the current rates. While there is no certainty the current rates will remain stable, there is no basis for significantly altering them either. Even though the rates were held fairly constant, when applied to the region's current unbalanced age structure, the resulting forecasts show considerable variation in the numbers of births, deaths and migration over time. As the baby boom generation continues to age it will continue to dramatically affect the region's age composition. This is evident from Figures 18 and 19 and Table 8 below



Figure 18

*Revised to reflect Development Framework forecast, January 2004.

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Table 8 Twin Cities Seven-County Population Forecasts by Age

			,	•	, ,		
Age group	1970	1980	1990	2000	2010	2020	2030
Under 5	175,534	142,520	185,100	188,236	202,423	228,176	238,614
5 to 9	202,394	141,320	174,360	198,690	199,987	213,818	229,154
10 to 14	199,179	161,630	149,970	197,611	200,791	208,366	228,508
15 to 19	173,492	186,740	142,800	183,491	212,894	211,417	224,239
20 to 24	166,082	204,570	175,360	173,732	223,881	226,832	232,627
25 to 29	147,055	199,560	234,200	196,455	223,784	257,869	255,297
30 to 34	113,349	174,820	233,380	214,700	209,740	262,260	267,067
35 to 39	101,015	132,720	203,520	239,341	212,409	237,440	272,296
40 to 44	102,601	104,150	172,770	229,983	216,204	208,523	259,050
45 to 49	99,976	93,370	129,380	198,735	237,755	208,156	230,993
50 to 54	88,860	94,130	98,810	164,857	224,115	207,387	198,897
55 to 59	76,312	89,440	84,710	117,051	186,018	219,169	190,484
60 to 64	64,975	72,730	79,230	83,929	147,349	197,100	179,759
65 to 69	52,530	58,550	70,670	68,266	99,515	155,875	181,624
70 to 74	44,494	46,930	54,970	62,349	68,439	119,061	157,819
75 to 79	33,422	36,330	42,560	53,309	53,124	76,463	119,180
80+	33,342	46,390	56,930	71,321	86,842	96,246	142,052
Total	1,874,612	1,985,873	2,288,729	2,642,056	3,005,270	3,334,160	3,607,660
Cha prev	nge from the vious decade	111,261	302,856	353,327	363,214	328,890	273,500
Percen	tage change	5.9%	15.3%	15.4%	13.7%	10.9%	8.2%

Assumptions for Metropolitan Council 2000 to 2030 forecasts:

1. A total fertility rate of 1.9 was assumed over the entire forecast period. The fertility rate is the average number of children a female will have in her lifetime; the replacement rate is 2.1. The rate was 1.83 in 1990, dropped to 1.79 in 1995 and rose to 1.86 in 1998 and 1.9 in 1999. These differences are miniscule when looked at in a long-term perspective. Fertility rates were well over 3 in the late 1950s. But even minor differences over a long time period can make a significant difference in the overall population. The brief upward trend in the late 1990s, which preceded the forecasts, will be closely monitored to see whether it declines to the past decade averages or continues upward.

2. Migration was assumed to average 6,000 per year for both males and females for the first year of the forecasts (2000), with net rates calculated for each five-year age and sex group. Net migration was adjusted after each five-year model iteration to reflect the changing age composition generated by the model. By 2030, male net migration was 6,743 per year; for females it was 6,944. Annual net migration in the 1990s was about 6,850 for males and 6,580 for females, with higher numbers assumed to have occurred in the latter half of the 1990s. Subsequent census data will be needed to validate that assumption. Historically, net migration has varied substantially. Although net migration was close to 100,000 in the 1950s, 1960s and 1980s, it was 134,000 in the 1990s and minus 40,000 in the 1970s.

3. The modest declines in death rates from 1990 to 2000 were projected at a dampened rate. Tests of various options based on varying these trends produced minor differences. Unless there are catastrophic occurrences, even dramatic changes in the death rates will only have a significant impact on the very oldest age groups. This would have important societal implications, but would still not have a great impact on the overall population forecast.

4. The Council's 2002 forecasts were revised at the city level based on local community input in 2003 and 2004. The impact on the regional forecasts was an additional 35,000 people by 2030 as shown in the Council's Regional Development Framework, adopted in January 2004. All of the additional growth occurs early in the forecast period. The age composition of the added population was estimated and added to the original model output.

-Between 2000 and 2030 the populations in all five-year age groupings are expected to increase. For those under age 55, the projected increase will be 451,000 while the number of those aged 55 and over will grow by over half a million (515,000).

-In terms of percentage increase, the change is much more dramatic. The projected thirty-year increase for those under age 55 is 21 percent compared to 128 percent for those aged 55 and over.

-The highest projected percentage increase from 2000 to 2030 of any 5-year age group under age 55 is just 34 percent (those aged 20 to 24). The lowest percentage for those 55 and over is 63 percent (those aged 55 to 59).

-The 65-to-69-year age group is expected to experience the greatest growth from 2000 to 2030. It is projected to add 113,000, an increase of 165 percent.

The changing age group populations will affect future growth rates, housing demand by type, development patterns, school needs, travel behavior and transportation service needs. But age alone cannot predict these changing demands. Cultural differences in housing preference and income also need to be considered.

The key age and transportation concern relates to the elderly, particularly if they become transit dependent with age. Map 6 shows the distribution of persons over age 65 in the 7-county area. In 2000 the elderly were concentrated in inner ring suburbs, primarily surrounding Minneapolis. The lowest percentages were in the newer suburbs and core area of Minneapolis. It is important to recognize that because people continue to age, current concentrations of elderly will eventually disappear, typically replaced by younger couples and families. New concentrations are likely to emerge in areas where populations are homogeneous in terms of age.



Racial and Ethnic Diversity

The Twin Cities has a small but rapidly growing racial and ethnic (Hispanic) minority population. The long-term trend is shown in Figure 20. Because of changes in the Census question on racial designation in 2000, historic comparisons are difficult. In the past people were allowed to choose only one race, which included a choice of 'other' for those who didn't like the choices provided by the Census Bureau. Mostly people of Hispanic descent chose "other", not believing any of the major race groups fit them. A variety of mixed race responses were also given, but not separately identified. In 2000 the Census provided six race categories from which people could pick one or any combination of two or more races. Some research has been done to compare the two approaches. It is not precise, but does allow for a reasonable calculation of a range to show the trends.



The percentage of the population that were racial and ethnic minorities in 2000 in the seven-county metro area was 16.8 percent, up from 9.3 percent in 1990, but the 2000 figure includes 2.3 percent who indicated two or more races. Research by the National Institute of Health Statistics indicates that the majority of people who chose two or more races would have probably indicated one of the minority races

(including "other") if only one category had been available, as was the case with the 1990 census. That percentage would, however, vary by race and location, although that level of research has not been done.

The Twin Cities seven-county area African American or Black population (one race alone in 2000) went from 3.9 percent to 5.9 percent. The Asian and Pacific Islander population (one race alone in 2000) went from 2.8 percent to 4.7 percent. The American Indian population (one race alone in 2000) went from 1.0 to .8 percent. The drop is almost certainly due to many American Indians of mixed race choosing to identify themselves with two or more race categories in 2000 rather than picking a single race.

The highest growth rate of any minority group was Hispanic (a census-defined ethnic minority, not a race group). That group increased by 60,000, from 1.6 percent of the population in 1990 to 4.6 percent in 2000. While this figure is not affected by the change in racial definitions it can reflect a change in how people identify themselves over time. The second largest ethnic change was for the region's Hmong population, which increased by 25,000, or 155 percent. The 7-county area region also saw more than a doubling in numbers of residents of Thai, Vietnamese and East Indian ancestry.

Immigrants from Africa also contributed to the region's growing diversity. They included large numbers of Somalis (9,000), Ethiopians (4,000), Liberians (2,500) and Nigerians (1,500), all groups that barely registered in the 1990 census.

During the 2003-04 school year, the Minneapolis and St. Paul School Districts each reported that nearly 100 different languages were spoken by students in their classrooms.

Because cultural and economic characteristics differ for various racial and ethnic minority groups, their transportation needs and behaviors can also differ. Map 7 shows a highly concentrated population of minorities near the downtowns of Minneapolis and St. Paul. The areas differ in their minority composition. The area north and west of downtown Minneapolis is predominantly African American: over half the population in 12 census tracts in this area were African American in 2000. This area of African American concentration extends into Brooklyn Center and Brooklyn Park. The area also had a fairly high and uniformly distributed number of Asians in 2000. The area of minority concentration in south Minneapolis also had a higher share of black population than other groups, but only two census tracts in this area were over half African American in 2000. The area also had a sizable Hispanic population in 2000, most of it new to the area since 1990. The area of minority concentration in the central part of St. Paul had a large proportion of Asians, the majority of whom are Hmong, although only one small tract was over half Asian in population in 2000, the only such tract in the region. There was also a small concentration of African Americans in the Summit-University neighborhood. Three of its census tracts were over half African American in 2000. St. Paul's West Side minority concentration was primarily Hispanic, although no census tracts in this area were over 50 percent Hispanic. Concentrations of African Americans in Richfield and Hispanics in the Shakopee area in 2000 were also evident on the map.



Income and Poverty

Income is an important factor in influencing travel behavior. In general, higher incomes mean more choices, which can often translate into more vehicles and more trips. Table 9 shows median household income and the percent of persons below poverty in the seven-county metro area, the other 15 counties in the 22-county commuter shed and for each of the 22 counties in this area. As would be expected, the places with high median incomes also had low poverty rates, and vice versa. The biggest difference as indicated in the 2000 census was in Hennepin County, which ranked 10th among these counties in median household income but had the fifth highest poverty rate. The high poverty rate is from Minneapolis, while the large number of higher income suburbs pushes the county median income up. Ramsey County, which includes St. Paul, ranked even higher in its poverty rate but not as high in median income because it had an older and relatively smaller suburban area. The 2000 census indicated that the lowest incomes and highest poverty rates were found in the three most northerly Minnesota counties in the 22-county commuter shed. The highest incomes and lowest poverty rates were in Washington, Scott, Carver and Dakota Counties which contain many of the region's growing suburban areas outside Hennepin County.

		Percent of
	Median	Persons
	Household	Below Poverty
Area	Income	Level
7-county total	\$68,439	6.9%
15-county total	\$56,139	6.1%
22-county total	\$66,255	6.8%
County		
Anoka	\$57,754	4.2%
Carver	\$65,540	3.5%
Dakota	\$61,863	3.6%
Hennepin	\$51,711	8.3%
Ramsey	\$45,722	10.6%
Scott	\$66,612	3.4%
Washington	\$66,305	2.9%
Chisago	\$52,012	5.1%
Goodhue	\$46,972	5.7%
Isanti	\$50,127	5.7%
Kanabec	\$38,520	9.5%
Le Sueur	\$45,933	6.9%
McLeod	\$45,953	4.8%
Mille Lacs	\$36,977	9.6%
Pine	\$37,379	11.3%
Rice	\$48,651	6.9%
Sherburne	\$57,014	4.4%
Sibley	\$41,458	8.1%
Wright	\$53,945	4.7%
Pierce, WI	\$49,551	7.7%
Polk, WI	\$41,183	7.1%
St. Croix, WI	\$54,930	4.0%

Table 9
Median Household Income and Poverty Rate, 1999
(From the 2000 Census)

Poverty rates are shown with greater geographic detail in Maps 8 and 9. Map 8 shows the percentage of the population in each census tract that is living in households with incomes below the poverty level as of 1999 (from the 2000 Census). The poverty level is set by the federal government and is based on household income and the size, number of adults and people over age 65 in that household. For a family with two adults and two children the poverty level in 1999 was \$16,895. For a single adult over age 65 the poverty level was \$7,990. The map shows a high degree of concentration of poverty in the central cities, near the two downtowns. This is a pattern very similar to the one showing concentrations of minority population. One notable exception is the high poverty concentration around the University of Minnesota, which has a large number of students (students in dormitories are not included in this data).

Map 9 shows persons with incomes below 175 percent of the poverty level, that is, persons with moderate incomes. The pattern is very similar to the poverty level map, but with higher percentages, which occurs because more of the population is covered. Not many new tracts show up on this map.





Households with No Vehicle Available

Within the seven-county metro area, approximately 85,700 households did not have a vehicle available for household use, as reported to the 2000 Census. This represented 8.4 percent of all households, a slightly smaller percentage than reported in 1990. Hennepin and Ramsey Counties had a higher share of no-vehicle households, each over 11 percent, which can be attributed in part to more low-income households, particularly in the central cities. The central portion of the region also has the highest level of public transit service, as an alternative to personal automobile use. Map 10 shows a pattern of concentration of no-vehicle households that is quite similar to the pattern of lower-income households, with the highest concentrations at the core of the region. There are also some lesser concentrations in surrounding suburbs and in farther-out, older cities that developed with a broader mix of shopping and other services convenient to residential locations, unlike many newer suburbs.

Disability and Employment Status

In the Minneapolis-St. Paul MSA, 12.9 percent of primary working-age persons (ages 16-64) reported some kind of a disability to the 2000 Census. This was at the low end among the 25 largest metro areas, which averaged 17.4 percent and ranged up to over 20 percent in Tampa and Miami. Approximately 254,000 Twin Cities area residents reported a disability, and approximately 168,000 of these residents were employed. At 66 percent, this was the highest employment rate of the 25 largest U.S. metros. People with mobility challenges in the Twin Cities region have access to Metro Mobility, an on-demand ride service. However, automated lift equipment allows many people to use the regular-route Metro Transit service. Map 11 shows disability concentrations by census tract. Not surprisingly, these concentrations are most pronounced in the central cities and adjacent areas, but they also tend to extend farther to the north and to the south. The 2000 Census did not ask whether people are unable to drive, and it did not ask whether people have difficulty using public transit, though it did in the previous census.





Travel Data by County for Study Area

Work Commute by Mode

The Census provides several measures directly related to work commuting. Questions about means of travel to work, vehicle occupancy, relationship between place of work and place of residence and commute time are asked. Census work trip data, shown in Table 10, shows that the private auto, truck or van carries the vast majority of trips in all counties. The differences by trip mode shown in the 2000 census were not great between the seven-county area and the 15 other counties. The seven counties had slightly lower percentages commuting to work by car, truck or van or walking and fewer working at home. The higher percentage working at home in rural areas was in part because they have farms. The outlying counties had very few transit trips. Bigger differences were evident among individual counties. By far the highest transit use was in Hennepin and Ramsey Counties, but it still accounted for only 7.2 percent and 6.0 percent of work trips, respectively, in those two counties in 2000. Walk trips were highest in Rice County at nearly 10 percent. Faribault and Northfield are located there and provide a sizable job base, but in places still small enough for many residents to walk to work.

				Motorcycle,	
	Car, truck or	Public trans-		bicycle or	Work at
Area	van	portation	Walk	other	home
7-county total	87.9%	5.0%	2.5%	1.0%	3.7%
15-county total	90.4%	0.4%	3.3%	0.7%	5.2%
22-county total	88.3%	4.1%	2.6%	0.9%	4.0%
Anoka	92.5%	2.7%	1.1%	0.5%	3.2%
Carver	91.4%	0.8%	1.9%	0.4%	5.5%
Dakota	92.4%	2.3%	1.0%	0.7%	3.6%
Hennepin	84.4%	7.2%	3.1%	1.3%	3.9%
Ramsey	86.1%	6.0%	3.8%	1.0%	3.1%
Scott	92.9%	0.9%	1.2%	0.4%	4.6%
Washington	93.2%	1.3%	1.1%	0.5%	3.8%
Chisago	93.6%	0.2%	1.1%	0.9%	4.2%
Goodhue	89.3%	1.1%	3.6%	0.5%	5.5%
Isanti	93.1%	0.5%	1.8%	0.7%	3.9%
Kanabec	91.1%	0.3%	2.6%	0.5%	5.5%
Le Sueur	89.5%	0.4%	3.8%	0.9%	5.4%
McLeod	89.5%	0.5%	3.5%	0.7%	5.9%
Mille Lacs	89.2%	0.1%	4.0%	0.9%	5.8%
Pine	89.2%	0.3%	3.1%	1.1%	6.3%
Rice	83.1%	0.7%	9.8%	1.5%	4.9%
Sherburne	93.6%	0.4%	1.3%	0.5%	4.3%
Sibley	86.2%	0.2%	4.6%	0.8%	8.2%
Wright	92.8%	0.3%	1.4%	0.6%	4.9%
Pierce, WI	86.7%	0.4%	6.5%	0.7%	5.6%
Polk, WI	89.7%	0.3%	3.2%	0.6%	6.3%
St. Croix, WI	92.3%	0.3%	2.2%	0.5%	4.7%

Table 10 Distribution of Work Trips by Mode, 2000

Source: U.S. Census, 2000.

Vehicle Occupancy

Vehicle occupancy in 2000, shown in Table 11, was somewhat lower in the seven-county metro area. This is to be expected given longer commutes from more distant counties. Kanabec, Mille Lacs, Pine and Sibley Counties had the greatest share of work trips in car pools, although the differences between the highest and the lowest percentages carpooling were not very great. It ranged from about 16.5 percent in Sibley and Mille Lacs Counties to about 10 percent in Carver, Dakota, Scott and Washington Counties.

					5-or-more-
		In 2-nerson	In 3-nerson	In 4-nerson	Derson
Area	Drove alone	carpool	carpool	carpool	carpool
7-county total	88.9%	11.1%	9.2%	1.2%	0.3%
15-county total	86.4%	13.6%	10.6%	1 7%	0.6%
22-county total	88.5%	11.5%	9.5%	1.3%	0.4%
	00.370	11.570	9.570	1.570	0.470
Anoka	89.0%	11.0%	9.5%	0.9%	0.2%
Carver	90.4%	9.6%	7.9%	1.2%	0.3%
Dakota	90.3%	9.7%	8.1%	1.1%	0.3%
Hennepin	88.8%	11.2%	9.2%	1.2%	0.4%
Ramsey	87.2%	12.8%	10.8%	1.3%	0.4%
Scott	89.9%	10.1%	8.5%	1.1%	0.3%
Washington	89.9%	10.1%	8.4%	1.0%	0.3%
Chisago	86.6%	13.4%	10.8%	1.2%	0.4%
Goodhue	88.9%	11.1%	9.0%	1.4%	0.5%
Isanti	86.0%	14.0%	10.9%	1.8%	0.6%
Kanabec	84.3%	15.7%	11.9%	2.9%	0.7%
Le Sueur	87.4%	12.6%	9.9%	2.0%	0.4%
McLeod	87.6%	12.4%	9.7%	1.6%	0.6%
Mille Lacs	83.6%	16.4%	12.3%	2.4%	0.9%
Pine	84.3%	15.7%	12.8%	1.9%	0.7%
Rice	85.5%	14.5%	10.6%	2.0%	1.0%
Sherburne	86.7%	13.3%	10.9%	1.5%	0.4%
Sibley	83.4%	16.6%	12.8%	2.2%	0.8%
Wright	86.5%	13.5%	10.8%	1.5%	0.5%
Pierce	86.6%	13.4%	10.6%	1.3%	0.6%
Polk	85.8%	14.2%	10.2%	2.2%	0.9%
St. Croix	87.4%	12.6%	9.5%	1.5%	0.6%

Table 11 Work Trip By Vehicle Occupancy

Source: U.S. Census, 2000.

Trip Origins and Destinations

The overwhelming majority of 1,356,000 work trips of residents of the seven metro counties in 2000 had a destination within the seven counties (see Table 12). Only about 32,000 left the seven counties, 19,000 of whom went to the 15 other counties in the Twin Cities commuter shed. More people worked at home in the seven counties (52,500) than left the region to work. For the other 15 commuter-shed counties, over one-third of their 276,000 worker trips were to the seven metro counties. They also had a higher share of their trips to other adjacent counties and metro areas (Duluth, Rochester and St. Cloud) than the seven metro area counties.

Map 12 shows the percentage of residents of each county in 2000 who work in that county and the percent who work in the central cities of Minneapolis and St. Paul. Hennepin County had the highest share, 83 percent of its residents, working in the county. This is not surprising since it had 55 percent of

the seven-county area's jobs compared to just 42 percent of its population. The most northerly of the commuter-shed counties also had higher percentages of residents working in the county. In these counties, commuting to major job concentrations would require the longest trips. Counties with strong employment centers, such as McLeod (Hutchinson), Goodhue (Red Wing) and Rice (Faribault and Northfield) also had higher percentages of their residents working in them. The lowest percentages of workers who stay within the county to work were the closer-in suburban counties where residential growth has outpaced job growth. Sherburne County had the lowest percentage probably because it is right between the Twin Cities and St. Cloud areas. Chisago, Washington, Carver and Scott were other counties where over 60 percent of their residents commute to jobs outside the county. Declining percentages of people living and working in the same county have been widespread since 1970. During the 1990s, the percentage staying within the county increased very slightly in Anoka, Dakota, and Washington Counties, and dropped in the others. Decreases were strongest in the counties outside the seven-county region, a reflection of their strong commuter-based growth.

In 2000, the Census indicated that commuting to the central cities was highest in Ramsey County, at 49 percent. This is to be expected since over half the county's jobs were in St. Paul, and Minneapolis is adjacent. Hennepin County was second with over a third of its workers commuting to one of the two central cities. Anoka, Dakota and Washington were the only other counties where over 20 percent commute to the two central cities. The percentages were generally higher for counties on the eastern side of the region. Even though Minneapolis has more jobs, there are also more intervening job opportunities on the west side of the region and St. Paul is more accessible to its suburbs.

		County of Employment									
				Duluth,							
		ter & St. Other job									
	22	7	Other 15	Cloud	desti-		Work at				
Resident County	Counties	Counties	Counties	MSAs	nations	Total trips	home				
22 counties	1,632,419	1,440,899	191,520	11,227	23,622	1,667,268	68,713				
7 counties	1,356,351	1,337,518	18,833	1,905	11,287	1,369,543	52,536				
15 counties	276,068	103,381	172,687	9,322	12,335	297,725	16,177				
Duluth, Roch. & St. Cloud MSAs	10,318	5,134	5,184	248,019	9,954	257,973	11,117				
Other trip origins	48,140	26,216	21,924	31,160	na	na	na				
Total trips	1,680,559	1,467,115	213,444	279,179	na	na	na				
Work at home	68,713	52,536	16,177	11,117	na	na	na				

Table 12 Work Trips for the 22-County Twin Cities Commuter Shed

Source: Census 2000, Transportation Planning Package.



The more jobs an area has the more options a person in that area has for employment. Map 13 shows the ratio of jobs to households by county. Hennepin had the highest percentage of its workers staying in the county in 2000 and also had the highest jobs to household ratio. Ramsey also had a high job ratio but a relatively lower percentage working in the county, the likely reason being that its small size means that Ramsey residents are close to other counties, particularly the large job base in Minneapolis and the rest of Hennepin County. The relationship between high job ratios and working in the county of residence did not hold for the most northerly of the commuter shed counties. These counties do not have very high job ratios, but there are no close counties with strong employment concentrations that would provide a relatively short commute.



Commute Times

Average commute times in 2000, shown in Map 14, reveal some clear patterns. They were lower in the southern tier of counties in the commuter shed, reflecting strong local employment centers. McLeod and Rice Counties were lowest with an average commute of 20 minutes in 2000. The highest commute times were from Isanti County, 33 minutes and Chisago County, 32 minutes. They were followed by other northern counties outside the seven-county area. The most distant northern commuter-shed counties also had greatest increases in commute time since 1990, as more people were willing to make the long commute to the seven-county area. Within the 22-county commuter shed, commute times increased more

in all of the 15 outlying counties than in the seven metro area counties except for Isanti County, which was just slightly below Anoka County; both had about 2.5 minute longer commutes. Increases ranged from 7.2 minutes in Kanabec County to 1.4 minutes in Scott County. The opening of the river crossing and job growth in Scott County evidently helped keep travel times down. Travel times in the seven-county metro area ranged from 21 minutes in Ramsey County to 27 minutes in Anoka County.



Reference Tables for Population, Households and Employment

			•		•		
		U. S. C	ensus			Forecast	
	1970	1980	1990	2000	2010	2020	2030
Twin Cities 7-County Me	tro Area						
Anoka	154,712	195,998	243,688	298,084	357,670	397,580	417,580
Carver	28,331	37,046	47,915	70,205	99,640	130,210	154,540
Dakota	139,808	194,279	275,186	355,904	413,510	472,770	504,270
Hennepin	960,080	941,411	1,032,431	1,116,206	1,202,160	1,293,840	1,373,350
Ramsey	476,255	459,784	485,783	511,035	540,600	562,510	592,700
Scott	32,423	43,784	57,846	89,498	145,770	185,350	220,940
Washington	83,003	113,571	145,880	201,130	245,920	291,900	344,280
7-County Total	1,874,612	1,985,873	2,288,729	2,642,062	3,005,270	3,334,160	3,607,660
8-County Metro Transpo	rtation Plannir	ng Region					
Chisago	17,492	25,717	30,521	41,101	51,640	61,170	69,540
8-County Total	1,892,104	2,011,590	2,319,250	2,683,163	3,056,910	3,395,330	3,677,200
Remaining Twin Cities M	letropolitan St	atistical Area	a Counties				
Isanti	16,560	23,600	25,921	31,287	36,930	39,690	42,350
Sherburne	18,344	29,908	41,945	64,415	86,350	105,630	121,920
Wright	38,933	58,681	68,710	89,993	109,710	126,410	139,010
MN MSA subtotal	1,965,941	2,123,779	2,455,826	2,868,858	3,289,900	3,667,060	3,980,480
Pierce, WI	26,652	31,149	32,765	36,804	39,818	42,655	45,850
St. Croix, WI	34,354	43,262	50,251	63,155	80,779	90,202	106,026
WI MSA subtotal	61,006	74,411	83,016	99,959	120,597	132,857	151,876
13-county MSA total	2,026,947	2,198,190	2,538,842	2,968,817	3,410,497	3,799,917	4,132,356
Other Counties in the Tw	vin Cities com	muter shed (5% or more o	f residents c	commuting to	the 7-county	area)
Goodhue	34,804	38,749	40,690	44,127	47,140	50,430	52,890
Kanabec	9,775	12,161	12,802	14,996	17,850	19,780	21,510
LeSueur	21,332	23,434	23,239	25,426	27,300	28,920	30,100
McLeod	27,662	29,657	32,030	34,898	37,490	39,780	41,580
Mille Lacs	15,703	18,430	18,670	22,330	26,160	30,310	34,160
Pine	16,821	19,871	21,264	26,530	30,360	34,370	37,840
Rice	41,582	46,087	49,183	56,665	64,540	72,430	80,010
Sibley	15,845	15,448	14,366	15,356	16,450	17,610	18,480
MN 5% subtotal	183,524	203,837	212,244	240,328	267,290	293,630	316,570
Polk, WI	26,666	32,351	34,773	41,319	45,901	49,952	52,257
5% commuter total	210,190	236,188	247,017	281,647	313,191	343,582	368,827
Minnesota subtotal	2,149,465	2,327,616	2,668,070	3,109,186	3,557,190	3,960,690	4,297,050
Wisconsin subtotal	87,672	106,762	117,789	141,278	166,498	182,809	204,133
Grand Total	2,237,137	2,434,378	2,785,859	3,250,464	3,723,688	4,143,499	4,501,183

 Table 13

 POPULATION (January 2004 with post-census adjustments)

Forecast sources: Seven metro counties, Metropolitan Council, 1/14/2004; remainder of Minnesota, State Demographer; Wisconsin, Demographic Services Center.

	HOUSEHOLDS (January 2004 with post-census adjustments)									
		United State	es Census			Forecast				
Year	1970	1980	1990	2000	2010	2020	2030			
Twin Cities 7-County Me	tro Area									
Anoka	39,688	60,716	82,437	106,429	135,300	156,330	166,600			
Carver	7,937	12,011	16,601	24,356	37,030	50,320	61,590			
Dakota	37,560	64,087	98,293	131,151	160,260	190,360	208,400			
Hennepin	309,719	365,536	419,060	456,133	500,960	546,400	583,470			
Ramsey	148,930	170,505	190,500	201,236	216,890	230,220	245,640			
Scott	8,486	13,501	19,367	30,692	53,820	71,920	87,250			
Washington	21,314	35,001	49,246	71,462	93,320	116,320	138,680			
7-County Total	573,634	721,357	875,504	1,021,459	1,197,580	1,361,870	1,491,630			
8-County Metro Transpo	rtation Plannin	g Region								
Chisago	5,197	8,347	10,551	14,454	19,110	23,560	27,620			
8-County Total	578,831	729,704	886,055	1,035,913	1,216,690	1,385,430	1,519,250			
Remaining Twin Cities M	letropolitan Sta	atistical Area	Counties							
Isanti	4,597	7,503	8,810	11,236	13,520	15,570	17,140			
Sherburne	4,953	8,971	13,643	21,581	30,530	38,920	46,260			
Wright	10,926	18,426	23,013	31,465	39,900	47,730	53,980			
MN MSA subtotal	599,307	764,604	931,521	1,100,195	1,300,640	1,487,650	1,636,630			
Pierce, WI	7,337	9,825	11,011	13,015	14,783	16,538	17,891			
St. Croix, WI	9,685	14,159	17,368	23,410	30,814	37,655	42,799			
WI MSA subtotal	17,022	23,984	28,379	36,425	45,597	54,193	60,690			
13-county MSA total	616,329	788,588	959,900	1,136,620	1,346,237	1,541,843	1,697,320			
Other Counties in the Tw	vin Cities comn	nuter shed (5% or more o	f residents c	ommuting to	the 7-county	area)			
Goodhue	10,814	13,628	15,198	16,983	19,160	21,280	23,050			
Kanabec	3,047	4,250	4,753	5,759	6,930	8,150	9,280			
LeSueur	6,507	8,033	8,468	9,630	10,850	12,000	12,900			
McLeod	8,530	10,376	11,815	13,449	15,050	16,640	18,030			
Mille Lacs	4,885	6,431	6,911	8,638	10,420	12,460	14,400			
Pine	5,169	6,851	7,577	9,939	11,850	13,900	15,690			
Rice	11,065	14,276	16,347	18,888	22,610	26,340	29,740			
Sibley	4,820	5,340	5,323	5,772	6,370	7,040	7,630			
MN 5% subtotal	54,837	69,185	76,392	89,058	103,240	117,810	130,720			
Polk (WI)	8,337	11,394	13,056	16,254	18,842	21,178	22,803			
5% commuter total	63,174	80,579	89,448	105,312	122,082	138,988	153,523			
Minnesota subtotal	654,144	833,789	1,007,913	1,189,253	1,403,880	1,605,460	1,767,350			
Wisconsin subtotal	25,359	35,378	41,435	52,679	64,439	75,371	83,493			
Grand Total	679,503	869,167	1,049,348	1,241,932	1,468,319	1,680,831	1,850,843			

Table 14 HOUSEHOLDS (January 2004 with post-census adjustments)

Forecast sources: Seven metro counties, Metropolitan Council, 1/14/2004; remainder of Minnesota, State Demographer; Wisconsin, Demographic Services Center.

EMPLOYMENT (January 2004)									
	MN De Developm	pt. of Employ nent. (DEED) Statistics	yment & Ecor and Bureau s (BLS)*	Metropoli	tan Council F	orecasts			
Year	1970	1980	1990	2000	2010	2020	2030		
Twin Cities 7-County Me	tro Area								
Anoka	29,170	57,806	76,783	108,912	124,640	136,880	147,310		
Carver	4,120	9,826	16,974	28,726	36,400	42,980	49,330		
Dakota	31,100	61,675	102,089	153,375	176,160	195,690	211,750		
Hennepin	461,100	600,978	732,796	874,603	968,610	1,046,110	1,106,790		
Ramsey	232,230	269,314	294,304	333,005	370,330	402,380	427,540		
Scott	6,820	13,219	18,525	34,689	41,810	48,680	56,690		
Washington	14,460	27,390	41,112	67,038	87,750	105,280	118,290		
7-County Total	779,000	1,040,208	1,282,583	1,600,348	1,805,700	1,978,000	2,117,700		
8-County Metro Transpo	rtation Plannir	ng Region							
Chisago	na	5,878	8,364	12,667	na	na	na		
8-County Total	na	1,046,086	1,290,947	1,613,015	na	na	na		
Remaining Twin Cities M	letropolitan St	atistical Area	a Counties						
Isanti	na	5,376	6,873	9,167	na	na	na		
Sherburne	na	6,000	9,946	19,087	na	na	na		
Wright	na	11,432	17,536	28,851	na	na	na		
MN MSA subtotal	na	1,068,894	1,325,302	1,670,120	na	na	na		
Pierce, WI	na	7,566	8,293	9,284	na	na	na		
St. Croix, WI	na	11,737	16,463	25,851	na	na	na		
WI MSA subtotal	na	19,303	24,756	35,135	na	na	na		
13-county MSA total	na	1,088,197	1,350,058	1,705,255	na	na	na		
Other Counties in the Tw	vin Cities com	muter shed (5% or more c	of residents c	commuting to	the 7-county	area)		
Goodhue	na	13,272	16,472	21,722	na	na	na		
Kanabec	na	3,093	3,470	3,892	na	na	na		
LeSueur	na	7,102	6,943	9,215	na	na	na		
McLeod	na	12,119	14,965	18,044	na	na	na		
Mille Lacs	na	5,454	7,150	9,712	na	na	na		
Pine	na	3,639	4,927	7,937	na	na	na		
Rice	na	15,378	19,332	22,340	na	na	na		
Sibley	na	3,385	3,425	4,062	na	na	na		
MN 5% subtotal	na	63,442	76,684	96,924	na	na	na		
Polk, WI	na	8,356	9,107	14,504	na	na	na		
5% commuter total	na	71,798	85,791	111,428	na	na	na		
Minnesota subtotal	na	1,132,336	1,401,986	1,767,044	na	na	na		
Wisconsin subtotal	na	27,659	33,863	49,639	na	na	na		
Grand Total	na	1,159,995	1,435,849	1,816,683	na	na	na		

Table 15

*Most of the Wisconsin historic data is from BLS, but some data for Polk County was from Wisconsin Dept. of Workforce Development.