



CHAPTER 1 PROFILE

This section presents an analysis that examines population and demographic dynamics, including future population and other important regional issues having a direct influence on the quality of the city's environment. This analysis identifies trends that will affect the future of Gothenburg.





POPULATION HISTORY AND CHARACTERISTICS

This discussion presents important changes in the characteristics and dynamics of Gothenburg's population.

In the last forty years Gothenburg has grown from a community of 3,050 to over 3,600 in 2000. Table 1.1 summarizes the historical population change in Gothenburg and includes comparisons with Aurora, Cozad, and Central City, communities comparable to Gothenburg in their size and access to transportation corridors. Table 1.1 indicates:

- Gothenburg has experienced a relatively stable population during the last 40 years resulting in an average of just under a 0.5% annual growth. After losing population in the 1980s, Gothenburg experienced its strongest decade of growth in the 1990s, compensating for the previous decades losses.
- Gothenburg's proportion of Dawson County's population growth from 1990 to 2000 is small. During the 1990's, Dawson County's population increased by 4,425 while Gothenburg increased by 387, about 9% of the total county growth.
- While Cozad, Gothenburg, and Central City lost population in the 1980s, only Gothenburg overcame this loss for an overall positive growth pattern in the last 20 years.

Table 1.2 compares the population in Dawson County outside of the City of Gothenburg with Merrick (Central City) and Hamilton (Aurora) counties and Cozad outside of Dawson County. Over the past forty years the county proportion of Dawson County residents living in Gothenburg compared to the rest of Dawson County has remained relatively consistent. The same is true for Cozad. This trend does not resemble Merrick or Hamilton counties, where growth in Central City and Aurora would appear to be stronger than the remainder of the county.

POPULATION DYNAMICS AND MIGRATION

Population change in a community is explained by three basic factors:

- *Comparison of births and deaths.* A surplus of births over deaths causes the population of that community to increase. A community with a younger population, particularly of people in childbearing or family formation years, will experience a higher birth rate, measured as number of the births per 1,000 people.
- *Migration Patterns.* If more people move to the community than leave, its population will increase and vice versa. A community that is building new housing may experience significant in-migration, some of which are residents new to the city, while others are relocating from surrounding rural communities.

- Annexation. In addition to internal population change, a community can grow by incorporating populated areas within its boundaries.

In order to assess the dynamics of Gothenburg’s population during the 1990s, the city’s expected population based solely on natural population change is calculated and compared with the actual outcome of the 2000 census. These population expectations are based on the following assumptions:

- A cohort-survival method is used to forecast population. This method is used to forecast population. This method “ages” a five-year age range of people by computing how many of them will survive into the next five year period. Cohort survival rates were developed by the National Center for Health Statistics (1992).
- The U.S. Bureau of the Census developed projected birth rates for the population.

Table 1.3 summarizes the results of this analysis. Based solely on birth and death rates Gothenburg should have continued to experience a population decrease of almost 3%. The city actually experienced a 12% increase, or an annual growth rate of 1.14%. This

TABLE 1.1: POPULATION CHANGE: GOTHENBURG AND COMMUNITIES

	1960	1970	1980	1990	2000	% Change 1960- 1980	% Change 1980- 2000	% Change 1990- 2000
GOTHENBURG	3,050	3,158	3,479	3,232	3,619	14%	4%	12%
AURORA	2,576	3,180	3,717	3,810	4,225	54%	14%	11%
COZAD	3,184	4,225	4,453	3,823	4,163	40%	-7%	9%
CENTRAL CITY	2,406	2,803	3,083	2,868	2,998	28%	-3%	5%
DAWSON COUNTY	19,405	19,771	22,304	19,940	24,365	15%	9%	22%
GOTHENBURG AS A % OF DAWSON COUNTY	15.7%	16.0%	15.6%	16.2%	14.9%			

Source: US Census Bureau, 2000

TABLE 1.2 POPULATION DISTRIBUTION IN DAWSON AND COMPARABLE COUNTIES

PROPORTION OF COUNTY POPULATION BEYOND CITY LIMITS				
YEAR	DAWSON COUNTY outside of GOTHENBURG	MERRICK COUNTY outside of CENTRAL CITY	HAMILTON COUNTY outside of AURORA	DAWSON COUNTY outside of COZAD
1960	84%	71%	70%	84%
1970	83%	68%	64%	79%
1980	84%	66%	60%	80%
1990	84%	64%	57%	81%
2000	85%	63%	55%	83%

Source: U.S. Census Bureau, RDG Planning & Design, 2006



actual population increase occurred evenly among males and females, which both grew by approximately 12%.

Table 1.4 provides a closer analysis of this change through an examination of the population change within specific cohorts. This analysis indicates:

- Gothenburg experienced growth for population aged 25 to 40. The model predicted a population decline between 1990 and 2000 for people aged 30 to 34, when it actually remained stable. For this age group, the variance between the predicted and actual population for 2000 was 54%, representing a significant in-migration of people.
- The growth in the number of children under 15 is attributed to the number of households in their family formation years, ages 25 to 40.
- Gothenburg experienced an out-migration of people in their late teens and early twenties, typical of many smaller cities unless a college is present.
- Gothenburg experienced strong growth and retention for seniors over 60. This senior housing and multi-family units developed during the 1990s and the community's senior services were important factors in this growth.

To establish a better understanding of the city's population change since the 2000 census it is important to look at construction activity within the community. New residential construction and demolition activity provide important insight into a community's population change. A stagnating or decreasing population is often reflected in fewer new residential construction permits. If the community is seeing a pattern of strong growth, more permits are likely to be issued. Table 1.5 provides an overview of the city's construction activity over the past ten years. The issuance of new residential permits has slowed somewhat since 1999; however, the increase of 52 new multi-family units in the form of mostly senior housing from 1996 to 1998 may help to explain growth and retention of senior residents as well as the increase in the number of young adults. As seniors downsize their lifestyle from a single-family home to an apartment, it opens the housing market to families wanting to purchase affordable starter homes or even upgrade.

POPULATION PROJECTIONS

Projecting the future population of Gothenburg helps predict the future demographic character of the community. This is critically important for the city's planning and policy decisions regarding future investment.

Future population for Gothenburg is forecasted using historical growth rates combined with the analysis of housing development since 2000. Population growth over the past 40 years averages just under 0.5% annually, much of this growth occurring in 1990s

TABLE 1.3: PREDICTED AND ACTUAL POPULATION CHANGE, 1990-2000

	1990	2000	CHANGE	%
PREDICTED POPULATION (BASED ON SURVIVAL AND BIRTH RATES)	3,232	3,148	-84	-2.60%
ACTUAL POPULATION	3,232	3,619	387	12.00%
PREDICTED FEMALE POPULATION	1,727	1,672	-55	-3.20%
ACTUAL FEMALE POPULATION	1,727	1,932	205	11.90%
PREDICTED MALE POPULATION	1,505	1,475	-30	-2.00%
ACTUAL MALE POPULATION	1,505	1,687	182	12.10%

Source: US Bureau of the Census, 2000, RDG Planning & Design

TABLE 1.4: PREDICTED AND ACTUAL AGE COHORT CHANGE, ALL RESIDENTS, 1990-2000

AGE GROUP	2000 PREDICTED	2000 ACTUAL	(ACTUAL - PREDICTED)	% VARIANCE: ACTUAL/PREDICTED
UNDER 5	166	290	124	74.80%
5-9	165	295	130	79.20%
10-14	207	248	41	20.10%
15-19	249	246	-3	-1.30%
20-24	264	172	-92	-34.90%
25-29	215	228	13	5.90%
30-34	140	215	75	53.90%
35-39	200	219	19	9.50%
40-44	216	237	21	9.50%
45-49	212	224	12	5.60%
50-54	206	224	18	8.80%
55-59	154	167	13	8.20%
60-64	121	139	18	14.70%
65-69	131	148	17	13.00%
70-74	141	161	20	14.50%
75-80	109	140	31	28.40%
80-84	114	121	7	6.50%
OVER 85	138	145	7	5.20%
TOTAL	3,148	3,619	471	15.00%

Source: US Bureau of the Census, 2000, RDG Planning & Design

TABLE 1.5: CONSTRUCTION ACTIVITY 1996-2006

	1995	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05	'06
SINGLE FAMILY	6	15	7	10	8	4	5	3	3	3	2	3
MULTI FAMILY	0	28	0	24	0	0	0	0	0	0	0	0
TOTAL	6	43	7	34	8	4	5	3	3	3	2	3

Source: City of Gothenburg, 2006, RDG Planning & Design

when it surged to 1.14% annual. Recent construction activity would indicate a slower, more stable growth pattern that resembles the US Census Bureau estimated 2005 population of 3,692.

Table 1.6 identifies the projected population of Gothenburg using varying growth rates and natural population change (0% migration). If Gothenburg maintains a growth rate of 0.5%, similar to the growth rate of the past five years, it can expect a 2010 population of 3,785 and a 2025 population of 4,079. For planning purposes this rate provides a stable growth pattern similar to other comparable communities and the city’s historic growth pattern.

ECONOMIC FACTORS

This discussion will examine characteristics of the area economy and the ways that Gothenburg residents earn their living.

EMPLOYMENT

Employment within a community can be assessed in two different ways. One is based on the resident’s employment by occupation while the other is based on a resident’s employment by industry. Employment by occupation describes the kind of work a person does on the job, as opposed to the type of industry an individual works in, which relates to the kind of business conducted by a person’s employer.

Table 1.7 presents Gothenburg’s employment by occupation for 1990 and 2000. Management and professional services nearly doubled during the 1990s, growing from 242 people in 1990 to 448 people in 2000 and representing a quarter of the workforce in 2000. Service occupations remained stable during the 1990s and represents a quarter of the workforce in 2000. Construction and maintenance grew significantly, as well, growing from 135 in 1990 to 295 in 2000. Production and transportation declined somewhat, declining by 48.

Table 1.8 presents Gothenburg’s employment by occupation for 2000 compared to Dawson County. Over 50% of Gothenburg residents are employed in management and professional or service occupations. Farming, fishing, and forestry are the major occupation for the county, representing over 30% of the total employment -11,361. Gothenburg’s portion of the farming, fishing and forestry occupations in the County is 8%, a small portion.

TABLE 1.6: POPULATION PROJECTIONS

	2000	2005	2010	2015	2020	2025
0.0% MIGRATION	3,619	3,562	3,535	3,534	3,556	3,576
0.5% ANNUAL GROWTH		3,692	3,785	3,881	3,979	4,079
1.0% ANNUAL GROWTH		3,692	3,880	4,078	4,286	4,505
1.14% ANNUAL GROWTH		3,692	3,907	4,135	4,376	4,631

Source: RDG Planning & Design

TABLE 1.7: EMPLOYMENT BY OCCUPATION, 1990-2000

	1990	% OF TOTAL	2000	% OF TOTAL	DIFF.
TOTAL EMPLOYED	1,461	100.0%	1,781	100.0%	
MANAGEMENT & PROFESSIONAL	242	16.6%	448	25.2%	206
SERVICE OCCUPATIONS	462	31.6%	463	26.0%	1
SALES	259	17.7%	247	13.9%	-12
FARMING, FISHING & FORESTRY	267	18.3%	280	15.7%	13
CONSTRUCTION & MAINTENANCE	135	9.2%	295	16.6%	160
PRODUCTION & TRANSPORTATION	96	6.6%	48	2.7%	-48

Source: US Census Bureau 2000

TABLE 1.8: EMPLOYMENT BY OCCUPATION, 2000

	DAWSON COUNTY	% OF TOTAL	CITY OF GOTHENBURG	% OF TOTAL
TOTAL EMPLOYED	11,361	100%	1781	100%
MANAGEMENT & PROFESSIONAL	2,519	22.20%	448	25.20%
SERVICE OCCUPATIONS	2,247	19.80%	463	26.00%
SALES	1,602	14.10%	247	13.90%
FARMING, FISHING & FORESTRY	3,454	30.40%	280	15.70%
CONSTRUCTION & MAINTENANCE	1,095	9.60%	295	16.60%
PRODUCTION & TRANSPORTATION	444	3.90%	48	2.70%

Based on US Census Bureau 2000

TABLE 1.9: EMPLOYMENT BY INDUSTRY, 1990-2000

	1990	% OF TOTAL	2000	% OF TOTAL	DIFF.
TOTAL EMPLOYED	1461	100%	1781	100%	320
AGRICULTURE, FORESTRY, FISHING, HUNTING, MINING	148	10%	170	10%	22
CONSTRUCTION	68	5%	142	8%	74
MANUFACTURING	190	13%	214	12%	24
WHOLESALE TRADE	103	7%	80	4%	-23
RETAIL TRADE	354	24%	217	12%	-137
TRANSPORTATION, WAREHOUSING, AND UTILITIES	114	8%	122	7%	8
INFORMATION	0	0%	41	2%	41
FINANCE, INSURANCE, REAL ESTATE, AND RENTAL	62	4%	90	5%	28
PROFESSIONAL, SCIENTIFIC, MANAGEMENT, ADMINISTRATIVE AND WASTE SERVICES	0	0%	59	3%	59
EDUCATIONAL, HEALTH, AND SOCIAL SERVICES	213	15%	320	18%	107
ARTS, ENTERTAINMENT, RECREATION, ACCOMMODATION AND FOOD SERVICES	14	1%	115	6%	101
OTHER SERVICES	159	11%	152	9%	-7
PUBLIC ADMINISTRATION	36	2%	59	3%	23

Source: US Census Bureau 2000

Table 1.9 compares employment in Gothenburg between 1990 and 2000. The largest change occurred among residents employed in educational, health, and social services. Retail trade also decreased considerably, possibly representing a change in retail activity in downtown but also a reflection of the overall economies shift towards more service industries. The information category did not exist in 1990; however, as of 2000 it accounts for 2% of employment in Gothenburg. These numbers should not be construed to indicate that Gothenburg gained 320 jobs over the ten year period, instead an increase in population and a greater number of residents in the work force at jobs either in or outside of Gothenburg would contribute to this increase.

COMMUTING PATTERNS

In 2000, the average commute for Gothenburg residents was 12.2 minutes, indicating most people work near the community. Table 1.10 shows the commuting patterns for Gothenburg and other comparable communities. Cozad, much like Gothenburg, provides some regional employment while North Platte and Lexington are larger regional employment market. According to Google Maps the travel time from Gothenburg to Cozad is 15 minutes, from Gothenburg to Lexington is 32 minutes, and from Gothenburg to North Platte is 38 minutes.

INCOME AND SALES TAX

Table 1.11 describes the income distribution for Gothenburg, the 69138 zip code, Dawson County, and Nebraska as a whole. Gothenburg's median household income is slightly lower than the rest of Dawson County as well as the state. Income distribution in Gothenburg is similar to the rest of the county; however, a larger proportion of Gothenburg residents make less than \$10,000 while a smaller proportion of Gothenburg residents make over \$75,000 than the rest of the county. A slightly higher median income of the zip code, which includes Gothenburg, suggests a greater percentage of higher income earners live outside of the city limits.

The prosperous 1990s meant a significant increase in retail sales for many communities. Table 1.12 describes the retail sales for Central City, Gothenburg, Lexington, and Cozad from 1990 to 2000. Aurora provides a comparison with a similarly sized community positioned along the I-80 Corridor. Cozad and Lexington provide a more regional view of retail activity. Table 1.12 tells us:

- That compared to Aurora, Gothenburg saw a much more significant increase in retail sales. Lagging behind Aurora by \$3,000,000 in 1990 the city surpassed it by \$1,000,000 in 2000.
- Although taxable retail sales had a smaller increase in Gothenburg than in Lexington or Cozad, the city only followed by approximately 5%.



Nan's Headhunters in
Downtown Gothenburg

TABLE 1.10: COMMUTING PATTERNS FOR GOTHENBURG AND OTHER COMPARABLE COMMUNITIES

COMMUNITY	AVERAGE TRAVEL TIME TO WORK	% WHO WALK TO WORK
GOTHENBURG	12.2	2.50%
NORTH PLATTE	13.8	1.80%
LEXINGTON	11.9	1.70%
AURORA	13.8	2%

Source: U.S. Census Bureau

TABLE 1.11: INCOME DISTRIBUTION FOR HOUSEHOLDS BY PERCENTAGE

	UNDER \$10,000	\$10,000 -14,999	\$15,000 -24,999	\$25,000 -34,999	\$35,000 -49,999	\$50,000 -74,999	OVER \$75,000	2000 MEDIAN INCOME
69138 ZIP CODE	9.7	6.4	16.8	14.6	23.3	18.5	10.8	\$36,121
GOTHENBURG	10.3	7.1	16.5	14	22.9	18.2	10.9	\$35,990
DAWSON COUNTY	8.6	7.3	17.6	14.5	21.7	18.8	11.3	\$36,132
NEBRASKA	8.3	6.6	14.8	14.7	18.4	20.4	16.8	\$39,250

Source: U.S. Census Bureau, 2000

TABLE 1.12: TAXABLE RETAIL SALES \$000'S (NON MOTOR VEHICLE)

	1990	1995	2000	CHANGE 1990-2000
GOTHENBURG	24,958	24,493	30,248	21.20%
AURORA	28,197	30,196	29,100	3.20%
COZAD	29,538	31,439	36,939	25.06%
LEXINGTON	72,712	87,547	92,095	26.66%

Source: Nebraska Bureau of Business Research, 2003



HOUSING CHARACTERISTICS

The previous discussion reviewed the economic characteristics of Gothenburg. There is an interlocking connection between such demographic and economic factors as population trends, income and employment. This discussion now analyzes housing values, rent levels, and occupancy rates to discover another facet of the city's economic character.

HOUSING OCCUPANCY AND TENURE

During the 1990s, Gothenburg experienced some change in their housing occupancy. Table 1.13 compares the vacant, owner- and renter-occupied units in Gothenburg in 1990 and 2000. Major findings comparing the 1990 and 2000 census data include:

- A gain of 112 new owner-occupied housing units and 54 renter-occupied housing units.
- Little change in the proportion of owner- and renter-occupied homes.
- An increase in vacant units from 103 to 107, despite representing a smaller percentage of total units in the City.

TABLE 1.14: CHANGES IN KEY HOUSING OCCUPANCY INDICATORS

	GOTHENBURG				COZAD				LEXINGTON			
	1990	2000	CHANGE 1990-2000	% CHANGE 1990-2000	1990	2000	CHANGE 1990-2000	% CHANGE 1990-2000	1990	2000	CHANGE 1990-2000	% CHANGE 1990-2000
TOTAL HOUSING UNITS	1,410	1,575	165	11.7%	1,725	1,851	126	7.3%	2,838	3,322	484	17.1%
OWNER OCCUPIED UNITS	972	1,084	112	11.5%	1,042	1,168	126	12.1%	1,726	1,978	252	14.6%
% OWNER OCCUPIED	68.9%	68.8%			60.4%	63.1%						
RENTER OCCUPIED UNITS	331	373	42	12.7%	522	554	32	6.1%	884	1,117	233	26.4%
% RENTER OCCUPIED	23.5%	23.7%			30.3%	29.9%			3.1%	3.4%		
VACANT UNITS	107	118	11	10.3%	161	129	-32	-20%	228	227	1	0.4%
VACANCY RATE	7.60%	7.5%			9.3%	7.0%			8%	6.8%		
MEDIAN VALUE	\$37,300	\$65,000	\$27,700	74.3%	\$37,300	\$57,100	\$19,800	53.1%	\$43,500	\$61,900	\$18,400	42.3%
MEDIAN CONTRACT RENT	\$179	\$456	\$277	154.7%	\$185	\$423	\$238	129%	\$220	\$467	\$247	112.30%

HOUSING COSTS

Table 1.14 offers an overview of housing costs in Gothenburg and other comparable communities. Gothenburg's housing values are consistent with Central City but significantly lower than Aurora and North Platte. Disparities among median contract rent is much less extreme among these comparable communities. Although, slightly higher than any other community, Gothenburg's median contract rent of \$456 is comparable to the other communities in Table 1.14.

TABLE 1.13: CHANGES IN HOUSING OCCUPANCY, GOTHENBURG

	1990		2000	
	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
OWNER OCCUPIED	972	69.13%	1,084	69.31%
RENTER OCCUPIED	331	23.54%	373	23.85%
VACANT UNITS	103	7.32%	107	6.84%
TOTAL	1,406	100%	1,564	100%

Source: US Census Bureau, 1990 & 2000

TABLE 1.14: CHANGES IN KEY HOUSING OCCUPANCY INDICATORS

	DAWSON COUNTY				NORTH PLATTE				STATE OF NEBRASKA			
	1990	2000	CHANGE 1990-2000	% CHANGE 1990-2000	1990	2000	CHANGE 1990-2000	% CHANGE 1990-2000	1990	2000	CHANGE 1990-2000	% CHANGE 1990-2000
TOTAL HOUSING UNITS	9,021	9,805	784	8.7%	9,827	10,718	891	9.1%	660,621	722,668	62,047	9.4%
OWNER OCCUPIED UNITS	5,458	6,104	646	11.8%	5,798	6,413	615	10.6%	400,394	449,317	48,923	12.2%
% OWNER OCCUPIED	60.5%	62.3%			59.0%	59.8%			60.60%	62.20%		
RENTER OCCUPIED UNITS	2,371	2,720	349	14.7%	3,252	3,531	279	8.6%	201,969	216,867	14,898	7.4%
% RENTER OCCUPIED	26.3%	27.7%			33.1%	32.9%			30.60%	30.00%		
VACANT UNITS	1,192	981	-211	-17.7%	777	774	-3	-0.4%	58,258	56,484	-1,774	-3.0%
VACANCY RATE	13.2%	10.0%			7.9%	7.2%			8.80%	7.80%		
MEDIAN VALUE	\$40,800	\$64,100	\$23,300	57.1%	\$42,100	\$75,500	\$33,400	79.3%	\$50,400	\$88,000	\$37,600	74.6%
MEDIAN CONTRACT RENT	\$199	\$453	\$254	127.60%	\$218	\$427	\$209	95.9%	\$282	\$491	\$209	74.1%

