

Community Economic Analysis

- Washington County, Wisconsin -

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INTRODUCTION

Washington County, located in the beautiful Kettle Moraine just northwest of Milwaukee in southeastern Wisconsin, has enjoyed abundant natural resources and excellent quality of life over the decades. However, Washington County has lost a number of larger employers over the past decade and there has been increased discussion regarding industry clusters, which are geographic concentrations of interdependent, complementary and/or competing businesses in related industries that trade with each other. Additional conversations have occurred regarding the need to strengthen existing businesses and attract additional employment opportunities in order to diversify the economy. This Community Economic Analysis had been implemented in order to better understand the key factors influencing the Washington County economy and the how the communities may utilize opportunities presented to grow and change. The study focuses on employment data and the key measurements because the data tends to be most readily available.

ECONOMIC BASE

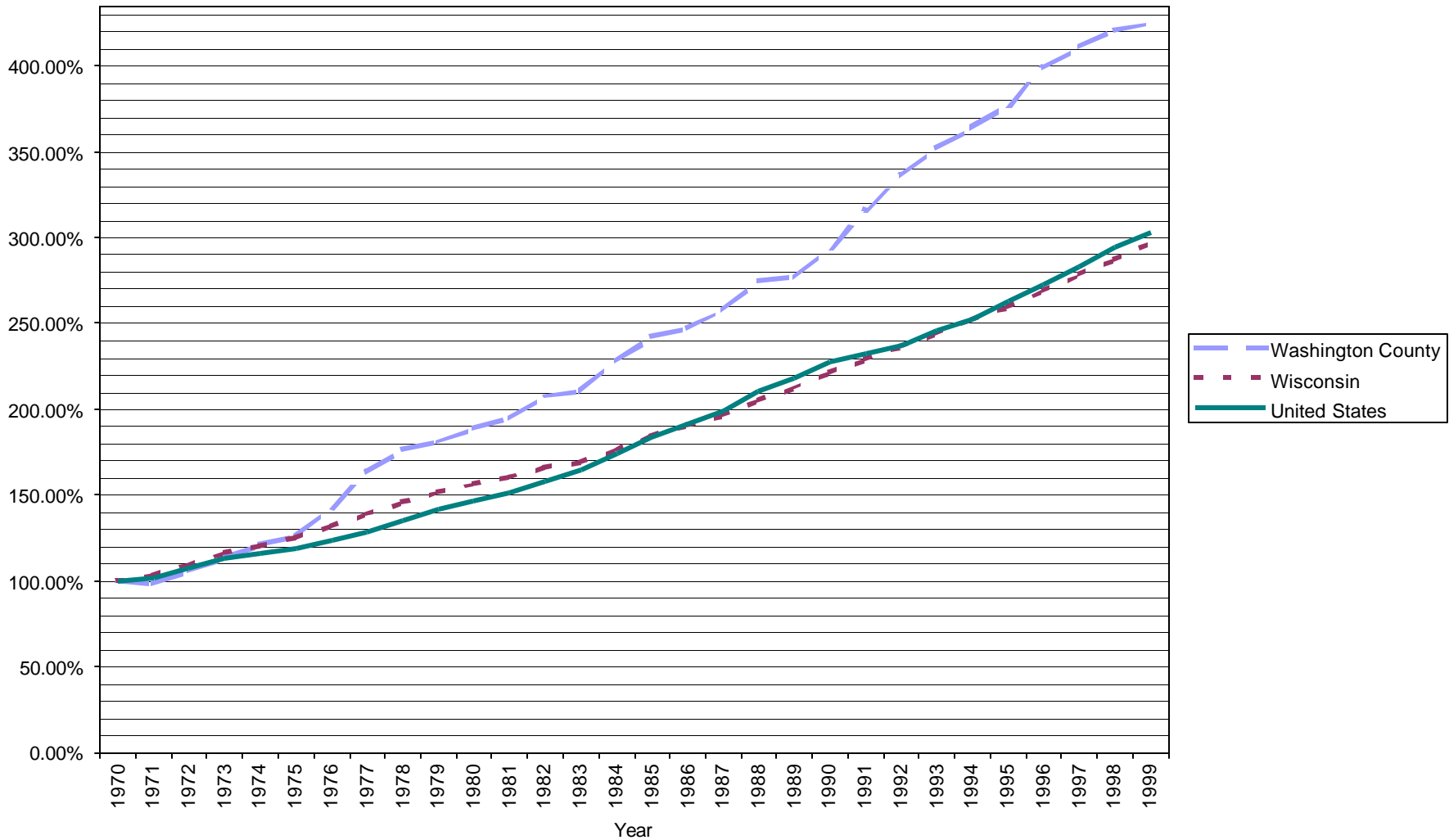
Upon reviewing the employment trends for Washington County, State of Wisconsin, and the United States, it is apparent that Washington County mirrors both Wisconsin and the nation for employment growth in both the service sector (See Chart 1) and total employment growth (See Chart 3) across all sectors during the 29-year period of time reviewed. The growth in both the service sector and in total employment for all sectors seemed to be relatively stable during the period of time from 1970 through 1999. The service sector experienced much more growth in Washington County than the nation and Wisconsin. In fact, the United States and Wisconsin experienced almost identical overall growth during the almost 30-year period of time in question. During the same time period, Washington County almost quadrupled employment in the service sector.

However, Washington County seemed to mirror the nation and State of Wisconsin in manufacturing until the mid-1980s. (See Chart 2). During the mid- to late- 1980s, Washington County experienced a much greater increase in manufacturing employment than that experienced in Wisconsin and the nation, both of which experienced a more subtle increase. During the early part of the 1990s, the sector saw an overall decrease in

employment with Washington County experiencing a more drastic decline than Wisconsin and the United States. Manufacturing employment rates in Wisconsin and Washington County continued to be at levels higher than that in the nation, though, with Washington County remaining at levels higher than the State of Wisconsin.

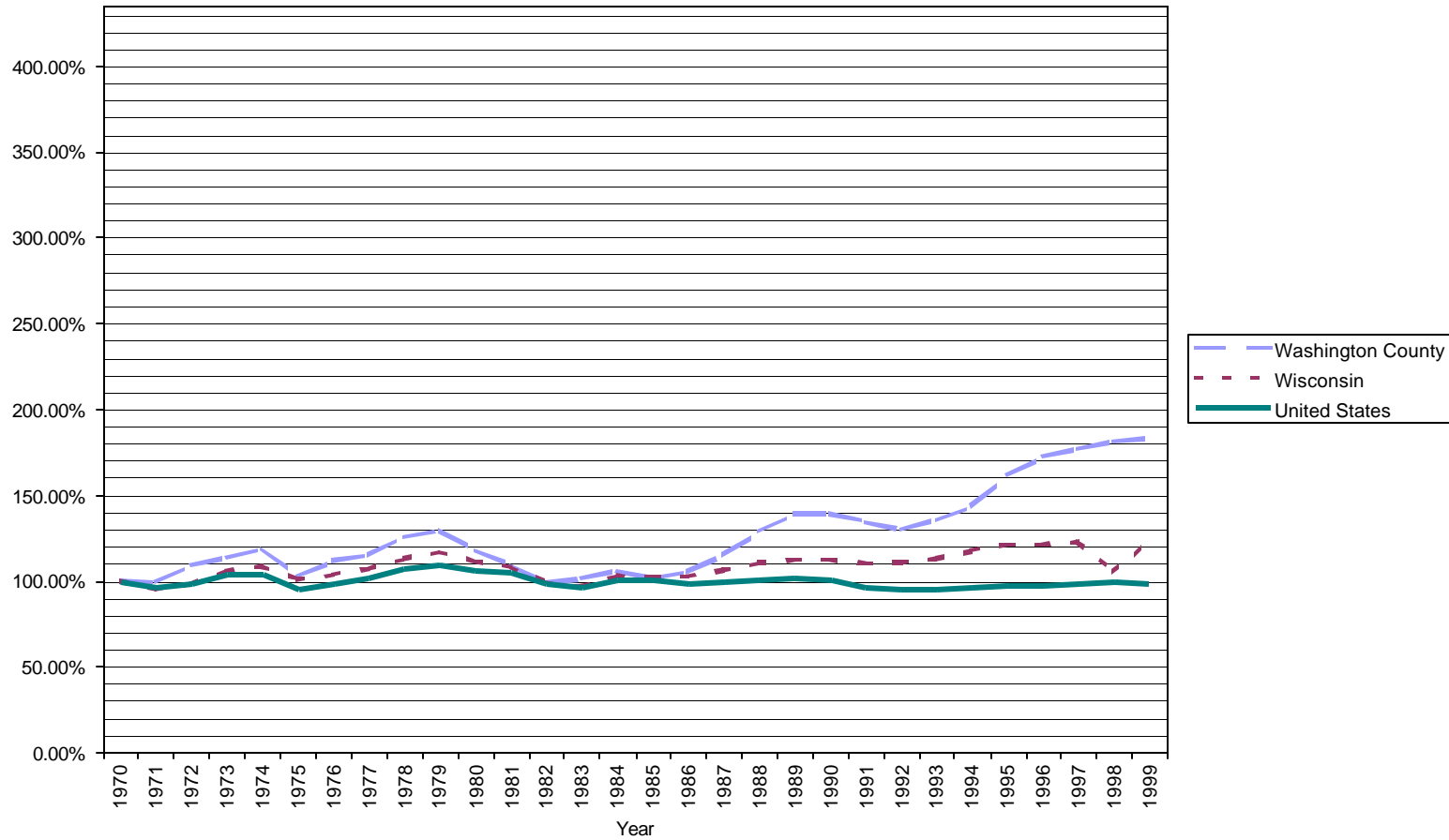
After the decrease in manufacturing employment during the early 1990s, both Wisconsin and Washington County experienced growth in employment figures in this sector. The nation experienced slight increases with overall manufacturing employment less than that experienced during the 1970s and 1980s. Wisconsin, although experiencing a drastic dip in the late 1990s, continues to experience higher manufacturing employment than experienced during the 1970s and 1980s. Washington County did not experience the same drastic decline as the balance of Wisconsin and continues to outpace the nation and Wisconsin in manufacturing employment. In fact, Washington County has almost doubled its manufacturing employment during the period of time analyzed.

Chart 1: Service Sector Trends: 1970 - 1999
(1970 = 100%)



The Service Sector includes establishments primarily engaged in providing a wide variety of services for individuals, business and government establishments, and other organizations. Hotels and other lodging places; establishments providing personal, business, repair, and amusement services; health, legal, engineering, and other professional services; educational institutions; membership organizations, and other miscellaneous services, are included.
 Source: Regional Economic Information System (REIS). www.fisher.lib.virginia.edu/reis/ May 2002.
 Due to NAICS data not being available prior to 1997, data presented in this chart is based on Standard Industry Classification (SIC) sectors

Chart 2: Manufacturing Sector Trends: 1970 - 1999
 (1970 = 100%)

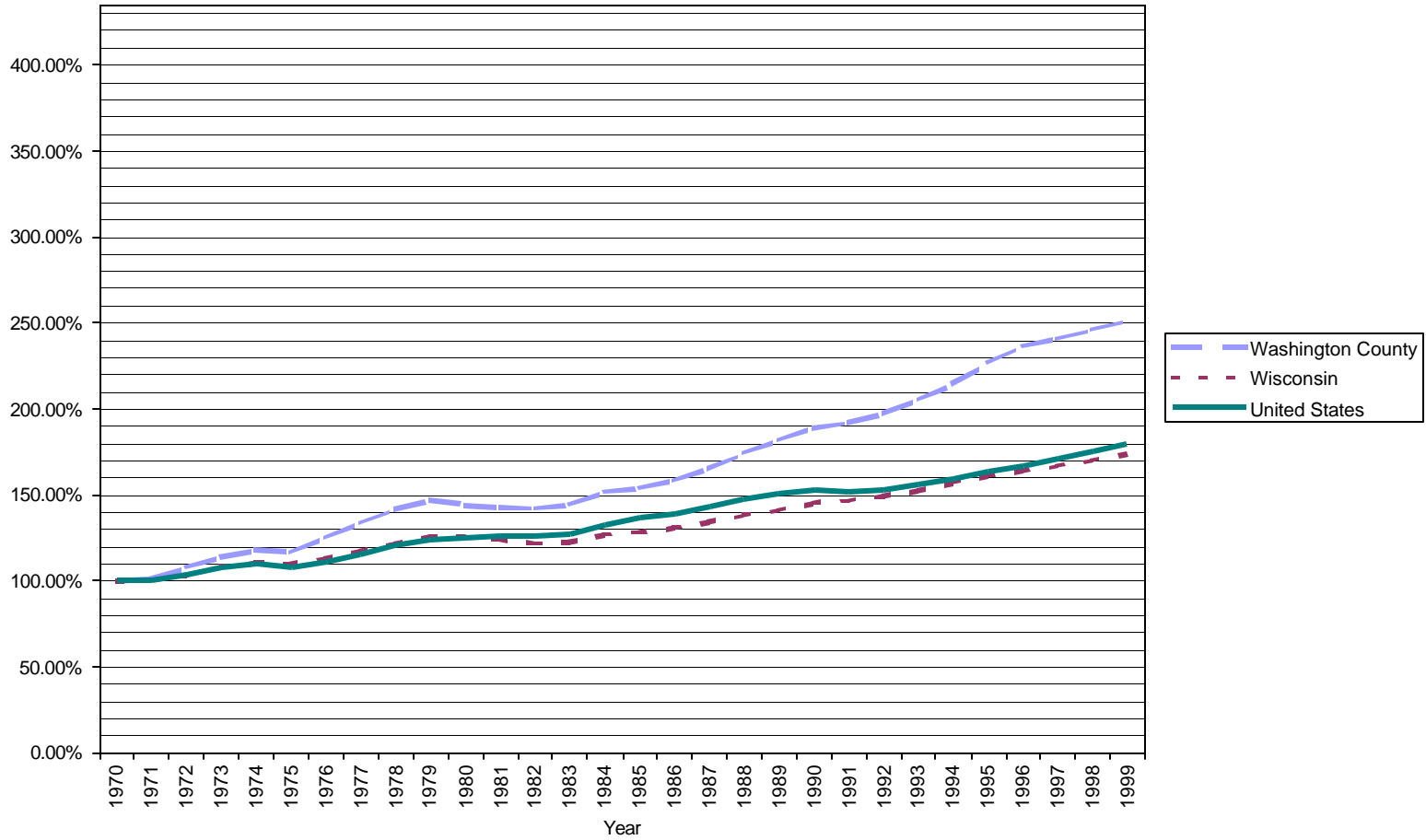


The Manufacturing Sector includes establishments engaged in the mechanical or chemical transformation of materials or substances into new products. These establishments are usually described as plants, factories, or mills and characteristically use power driven machines and materials handling equipment. Establishments engaged in assembling component parts of manufactured products are also considered manufacturing if the new product is neither a structure nor other fixed improvement. Also included is the blending of materials, such as lubricating oils, plastics, resins, or liquors.

Source: Regional Economic Information System (REIS). www.fisher.lib.virginia.edu/reis/ May 2002

Due to NAICS data not being available prior to 1997, data presented in this chart is based on Standard Industry Classification (SIC) sectors

Chart 3: All Employment Sector Trends: 1970 - 1999
 (1970 = 100%)



Source: Regional Economic Information System (REIS). www.fisher.lib.virginia.edu/reis/ May 2002
 Due to NAICS data not being available prior to 1997, data presented in this chart is based on Standard Industry Classification (SIC) sectors

Upon reviewing the percentage of jobs in Washington County and the United States for the various industry sectors in 1999, the high manufacturing employment in the county can be seen. (See Table 2). Washington County experienced 33.38% of total employment in 1999 in the Manufacturing sector. That is more than double the nation. Washington County also experienced higher percentages of jobs in the Construction, Wholesale Trade, and Other Services sectors, although not drastically above those rates experienced in the nation.

Table 2: Percentage of Jobs in Industry Sectors: Washington County vs. United States (1999)

NAICS	NAICS Description	Washington County	United States
11---	Forestry, Fishing, Hunting, and Agriculture Support	*	0.17%
21---	Mining	0.17%	0.41%
22---	Utilities	*	0.60%
23---	Construction	6.30%	5.60%
31---	Manufacturing	33.38%	15.05%
42---	Wholesale Trade	6.53%	5.39%
44---	Retail Trade	12.46%	13.08%
48---	Transportation and Warehousing	3.06%	3.28%
51---	Information	0.93%	2.92%
52---	Finance and Insurance	4.52%	5.39%
53---	Real Estate and Rental and Leasing	0.06%	1.69%
54---	Professional, Scientific and Technical Services	2.54%	5.81%
55---	Management of Companies and Enterprises	0.72%	2.52%
56---	Administrative Support, Waste Management, Remediation Services	4.01%	7.56%
61---	Educational Services	0.62%	2.20%
62---	Health Care and Social Assistance	9.39%	12.52%
71---	Arts, Entertainment, and Recreation	1.32%	1.48%
72---	Accommodation and Food Services	8.04%	8.71%
81---	Other Services (except Public Administration)	5.02%	4.65%
95---	Auxiliaries (except Corporate, Subsidiary and Regional Management)	*	0.87%
99---	Unclassified Establishments	0.05%	0.10%
	TOTAL EMPLOYMENT	45,834	110,705,661

Source: U.S. Census Bureau County Business Patterns, 1999. www.census.gov/epcd/cbp/view/cbpview/html May 2002.

* Specific employment data not available.

Data based on North American Industry Classification System (NAICS) sectors. See Appendix 1 for detailed description of the NAICS sectors.

Although experiencing a high percentage of jobs in the Manufacturing sector, a few sectors in Washington County stand out for having a lower percentage of jobs than the nation: Information, Real Estate and Rental and Leasing, Professional, Scientific and Technical Services, Management of Companies and Enterprises, Administrative Support, Waste Management, Remediation Services, Educational Services, and the Health Care and Social Assistance. These sectors all had employment figures at or greater than 1.5% less in Washington County than those rates for the nation. These sectors tend to be those that are considered “new economy” and technology related. These sectors also tend to employ college educated workers.

The Wisconsin Department of Workforce Development projects that percent employment change for the period 1998 through 2008 will increase in a number of the previously mentioned sectors, although the projects are stilled based on the Standard Industrial Classification (SIC) rather than the North American Industry Classification System (NAICS). The first Wisconsin projections to use NAICS codes will be the 2004-2014 round. However, although utilizing the different classification systems, we can still get a sense of the projections for those sectors currently experiencing lower employment rates than the nation. According to the 1998-2008 projections, Finance, Insurance and Real Estate will experience a 13.9% increase. Within that sector, Security and Commodity Brokers employment is expected to increase by 50.8% while Insurance Agents, Brokers and Services is expected to increase 18.0% and Real Estate is expected to increase 19.6%. Business Services employment is expected to increase by 47,890 jobs or 35.5%. Services, in general, are expected to experience an employment increase of 21.0%. On the other hand, although expected to experience an overall increase in employment, manufacturing employment is expected to increase only 4.1% during 1998-2008 with several manufacturing sectors losing employment or gaining a minimal number of jobs. Washington County may be able to take advantage of the projected increases in employment in the various sectors in which Washington County currently lags behind the nation. This may also diversify the economy so that the economic health of Washington County is not as reliant on manufacturing.

The reliance in Washington County on the Manufacturing sector is evident by the number and size of establishments. (See Table 3). Of the 3,092 total establishments in Washington County in 1999, only five percent has 50 or more employees. Of those 155 firms that had greater than 49 employees, 38.7% were in the manufacturing sector with two of those firms employing 1,000 or more workers. This reliance on manufacturing tends to lead to higher unemployment rates during times of economic downturns. For example, the City of West Bend, a community with strong

manufacturing ties, had been ranked in the top 10 cities for highest unemployment rates during the first half of 2002. Other factors may contribute to this higher unemployment rank but reliance on manufacturing does contribute.

As previously mentioned, several industry sectors experienced a lower percentage of jobs in Washington County than the nation. Those sectors: Information, Real Estate and Rental and Leasing, Professional, Scientific and Technical Services, Management of Companies and Enterprises, Administrative Support, Waste Management, Remediation Services, Educational Services, and the Health Care and Social Assistance represent 22.6% of all firms in Washington County. However, very few of those firms are larger than 50 employees. Twenty-four of the 699 firms in those sectors employ 50 or more people. Although the number of firms in those sectors represent 22.6% of all Washington County companies, the firms in those sectors represent on 15.5% of the 155 firms employing 50 or more people.

Table 3: Number of Firms by Size by Industry Sectors: Washington County (1999)

NAICS	NAICS Description	TOTAL	Total Establishments									1000 or more
			1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999		
11---	Forestry, Fishing, Hunting, and Agriculture Support	3	3	0	0	0	0	0	0	0	0	0
21---	Mining	5	0	1	3	1	0	0	0	0	0	0
22---	Utilities	4	1	1	1	0	1	0	0	0	0	0
23---	Construction	561	378	119	45	15	2	2	0	0	0	0
31---	Manufacturing	320	67	53	72	68	31	17	8	2	2	2
42---	Wholesale Trade	181	93	30	26	21	3	7	1	0	0	0
44---	Retail Trade	387	172	81	66	41	18	8	1	0	0	0
48---	Transportation and Warehousing	132	74	24	14	15	4	1	0	0	0	0
51---	Information	32	17	7	3	3	1	1	0	0	0	0
52---	Finance and Insurance	168	100	34	18	11	3	0	1	1	0	0
53---	Real Estate and Rental and Leasing	75	53	10	9	3	0	0	0	0	0	0
54---	Professional, Scientific and Technical Services	199	136	32	24	5	0	2	0	0	0	0
55---	Management of Companies and Enterprises	12	7	2	1	0	1	1	0	0	0	0
56---	Administrative Support, Waste Management, Remediation Services	145	98	23	8	8	3	4	1	0	0	0
61---	Educational Services	22	11	1	5	4	1	0	0	0	0	0
62---	Health Care and Social Assistance	214	87	60	42	16	1	4	2	2	0	0
71---	Arts, Entertainment, and Recreation	54	30	7	9	5	2	1	0	0	0	0
72---	Accommodation and Food Services	216	63	36	39	65	11	2	0	0	0	0
81---	Other Services (except Public Administration)	323	185	70	48	18	1	0	1	0	0	0
95---	Auxiliaries (except Corporate, Subsidiary and Regional Management)	2	0	1	1	0	0	0	0	0	0	0
99---	Unclassified Establishments	37	36	0	1	0	0	0	0	0	0	0

Source: U.S. Census Bureau County Business Patterns, 1999. www.census.gov/epcd/cbp/view/cbpview/html May 2002.
Data based on North American Industry Classification System (NAICS) sectors. See Appendix 1 for detailed description of the NAICS sectors.

Throughout this paper it has been evident that Washington County relies on Manufacturing. Relying too heavily on one sector may lead to economically unhealthy and unstable communities. In order to help identify industry sectors that Washington County may focus on, location quotients have been calculated for the various industry sectors. Location quotients will not provide the complete answer for Washington County but will provide an initial glimpse into some potential opportunities.

Location quotients provide an estimate as to whether local economies are exporting a good or service, which is a measurement of specialization within the local economy. Typically, if the location quotient is greater than 1 (generally 1.25 is utilized), the local economy is specialized. If the ratio is less than 1 (generally .75 is utilized), the sector is more likely importing some of the local consumption from external sources. In order to interpret location quotients, three assumptions are needed. First, it is assumed that the productivity of workers locally is equal to the productivity of workers nationally. The second assumption is that the demand from customers is equal both locally and nationally. The final assumption is that the products being produced are equal both locally and nationally.

Upon reviewing the data for Washington County, the location quotient for Manufacturing is the only figure above the standard cut-off of 1.25. If the lower ratio is utilized, only Construction, Wholesale Trade, and Other Services are greater than 1.0. (See Table 4). However, based upon the 1.25 ratio, the Manufacturing sector in Washington County is the only sector producing exports. Exports typically bring income into the local economy. Because of the strong ties to manufacturing, Washington County should continue to strengthen and support manufacturers in Washington County. Every effort should be made to make sure these firms continue to thrive and operate at peak efficiency. Furthermore, consideration should be given to those manufacturing firms looking to expand in Washington County or relocate.

On the other hand, because numerous industry sectors are less than 0.75, it is likely that Washington County is acquiring the supply of the goods and services from elsewhere. Mining, Information, Real Estate and Rental and Leasing, Professional, Scientific and Technical Services, Management of Companies and Enterprises, Administrative Support Waste Management, Remediation Services, Educational Services, Health Care and Social Assistance, and Unclassified Establishments are all sectors in Washington County that are at or below the minimum ratio. In order to address this situation, Washington County should review the sectors that are most likely importing a good or service and determine if that good or

**Table 4: Washington County Location Quotients
(1999)**

NAICS	NAICS Description	Location Quotients
11---	Forestry, Fishing, Hunting, and Agriculture Support	*
21---	Mining	0.40
22---	Utilities	*
23---	Construction	1.12
31---	Manufacturing	2.22
42---	Wholesale Trade	1.21
44---	Retail Trade	0.95
48---	Transportation and Warehousing	0.94
51---	Information	0.32
52---	Finance and Insurance	0.84
53---	Real Estate and Rental and Leasing	0.04
54---	Professional, Scientific and Technical Services	0.44
55---	Management of Companies and Enterprises	0.29
56---	Administrative Support, Waste Management, Remediation Services	0.53
61---	Educational Services	0.28
62---	Health Care and Social Assistance	0.75
71---	Arts, Entertainment, and Recreation	0.89
72---	Accommodation and Food Services	0.92
81---	Other Services (except Public Administration)	1.08
95---	Auxiliaries (except Corporate, Subsidiary and Regional Management)	*
99---	Unclassified Establishments	0.52

TOTAL EMPLOYMENT

A location quotient is a calculation utilized to determine a community's degree of self-sufficiency in a particular sector, determine if a community is losing its local trade dollars to nonlocal markets, and/or determine if a community is producing more than needed for its own use and is selling the excess to nonlocal markets.

Source: U.S. Census Bureau County Business Patterns, 1999. www.census.gov/epcd/cbp/view/cbpview/html
May 2002.

* Specific employment data not available.

National employment figures utilized in the equations

Data based on North American Industry Classification System (NAICS) sectors. See Appendix 1 for detailed description of the NAICS sectors.

service could feasibly be produced in Washington County. If so, perhaps those sectors would support entrepreneurship. The other option is to provide, or at least encourage, existing firms with an opportunity to improve efficiency.

Prior to discussing company efficiency, an additional exercise may be undertaken and explored to understand the Washington County economy. By expanding upon the information collected for the location quotient, basic and non-basic employment per industry can be explored. (See Table 5). By reviewing basic and non-basic employment data, we will have an additional tool in our attempts to understand our industry sectors in Washington County. For example, even though an industry may have a low location quotient, the industry may still be a strong industry to enhance and support. Specifically, those industries that have twice the number of basic employment to non-basic employment would indicate a industries that may have potential. Unfortunately in the case of Washington County, no industry sectors have the two to one ration of basic to non-basic employment.

Table 5: Washington County Basic and Non-basic Employment (1999)

NAICS	NAICS Description	Basic Employment	Non-basic Employment
11---	Forestry, Fishing, Hunting, and Agriculture Support	*	*
21---	Mining	0	76
22---	Utilities	*	*
23---	Construction	325	2,568
31---	Manufacturing	8,436	6,897
42---	Wholesale Trade	526	2,473
44---	Retail Trade	0	5,726
48---	Transportation and Warehousing	0	1,408
51---	Information	0	429
52---	Finance and Insurance	0	2,077
53---	Real Estate and Rental and Leasing	0	329
54---	Professional, Scientific and Technical Services	0	1,165
55---	Management of Companies and Enterprises	0	333
56---	Administrative Support, Waste Management, Remediation Services	0	1,840
61---	Educational Services	0	283
62---	Health Care and Social Assistance	0	4,314
71---	Arts, Entertainment, and Recreation	0	608
72---	Accommodation and Food Services	0	3,692
81---	Other Services (except Public Administration)	173	2,133
95---	Auxiliaries (except Corporate, Subsidiary and Regional Management)	*	*
99---	Unclassified Establishments	0	23
	TOTAL EMPLOYMENT	9,460	36,374

Source: U.S. Census Bureau County Business Patterns, 1999. www.census.gov/epcd/cbp/view/cbpview/html May, 2002.

* Specific employment data not available.

Data based on North American Industry Classification System (NAICS) sectors. See Appendix 1 for detailed description of the NAICS sectors.

In order to assist firms located in Washington County to become more efficient, a shift-share analysis was completed. Unfortunately, the same data was unavailable as that utilized previously to determine location quotients so results will vary. Efficiency is crucial to Washington County firms because as firms become more efficient, they can either expand their market share or expand their sales and eventually their employment, which often leads to additional profits. Efficiency improves the firm's chances for survival in the ever-changing economy. Efficiency is crucial to strengthen and support the Manufacturing sector, which Washington County so heavily relies upon, as well as build and strengthen other industry sectors.

Shift-Share analysis is one way of identifying, at least tentatively, which sectors of a local economy need to improve their efficiency. The data provides an estimate of the overall changes in employment in a given industry that are due to local conditions. The total change in employment is the difference between the employment in one year and the employment in the beginning year. For this paper, 1999 is the end year with 1990 the beginning year. (See Table 6). The only sector in Washington County to lose employees during the time period had been Mining, with a loss of 2 employees.

**Table 6: Washington County Shift-Share Analysis
(1990 - 1999)**

	Total Change	Expected Change	Competitive Share
Ag. Services, Forestry, Fishing, and Other	459	180	279
Mining	-2	-17	15
Construction	814	813	1
Manufacturing	4,023	-292	4,315
Transportation and Public Utilities	664	356	308
Wholesale Trade	1,234	184	1,050
Retail Trade	2,206	1,377	829
Finance, Insurance, and Real Estate	978	608	370
Services	4,145	3,108	1,037

A shift-share analysis is a calculation utilized to measure how many new jobs were created locally due to national economic trends. Source: Regional Economic Information System (REIS). <http://fisher.lib.virginia.edu/reis/> May 2002. Due to NAICS data not being available prior to 1997, data presented in this table is based on Standard Industry Classification (SIC) sectors

The expected change is estimated from the change at the national level. Using Mining as an example, the expected change based upon national levels would have been a change of negative 17 jobs. The competitive share, then, is calculated by simply taking the difference between the total change and the expected change. Again, Mining had a total change of negative 2 jobs in Washington County but the expected change based on national levels was negative 17. Therefore, Washington County has a competitive share of 15 jobs. This means that Washington County has 15 more employees than one would expect given the national trends in the Mining sector.

Washington County experienced all positive competitive shares for all industry sectors during the time period. Generally, positive competitive shares indicate that the companies have either lowered costs of product or have made the product more appealing and thus expanding its market share relative to the national industry. Although having positive competitive share figures is seen as a good signal, Washington County should perhaps further examine why all sectors have experienced such positive figures.

Finally, while the above data provides a glimpse into Washington County's economic base, it is important to realize that not all jobs have an equal impact on the economy. For example, manufacturing industry jobs tend to be capable of supporting far more nonbasic employment than perhaps a job in the retail sector. While it is crucial to encourage all employment opportunities, there needs to be recognition that the effects of job creation on the economy vary between sectors.

TRENDS AFFECTING WASHINGTON COUNTY

Washington County has recently experienced rapid growth, exceeding the growth rates for both the State of Wisconsin (See Appendix 2) and the nation. While Washington County ranked fourth among the 72 Wisconsin counties in percentage of population growth, Washington County grew the most based upon raw numbers. For example, Marquette County, which ranked first based upon a percentage increase of 28.5, grew by 3,511 individuals. Washington County, on the other hand, grew by 22,165 individuals from 1990 to 2000.

Washington County is expected to continue to experience the rapid growth rates experienced in the past thirty plus years. In fact, the 2000 Census population for Washington County of 117,493 is most comparable to the 2000 projected intermediate-growth population of 118,500 prepared by the Southeastern Wisconsin Regional Planning Commission. (See Table 7). The three growth rates projected create a range of growth that presumes the actual growth will not be greater than the high-growth projection and will not be lower than the low-growth projection. The projections are based on mortality rates, fertility rates and migration. The population of Washington County has grown by over 84% since 1970 and this growth rate is projected to continue for Washington County.

Table 7: Washington County Historic Population and Projected Population Levels

Census				Projected Population Levels					
1970	1980	1990	2000	2010			2020		
				High-Growth	Intermediate-Growth	Low-Growth	High-Growth	Intermediate-Growth	Low-Growth
63,839	84,848	95,328	117,493	152,800	127,500	117,300	160,000	131,500	120,000

Source: U.S. Census Bureau, 2000 Summary File 1, Wisconsin Department of Administration and the Southeastern Wisconsin Regional Planning Commission
 Prepared by: The Planning Division, Economic Development Division and GIS Division of the Washington County Planning & Parks Dept.

Within Washington County, several communities experienced dramatic growth rates while other communities have grown less drastically. (See Table 8). However, the majority of the communities in Washington County did experience growth rates above the state average of 9.6% during the time period 1990 through 2000. The population figures do not take into consideration annexations and ensuing boundary adjustments that may have occurred to the municipalities.

Table 8: Population of Washington County Civil Divisions

	Census				Change from 1990 to 2000 Census	Percent Change from 1990 to 2000 Census	Rank
	1970	1980	1990	2000			
ADDISON TOWNSHIP	2,375	2,834	3,051	3,341	290	9.5	17
BARTON TOWNSHIP	1,624	2,493	2,586	2,546	-40	-1.5	20
ERIN TOWNSHIP	1,641	2,455	2,817	3,664	847	30.1	6
FARMINGTON TOWNSHIP	1,734	2,386	2,523	3,239	716	28.4	7
GERMANTOWN TOWNSHIP	416	267	258	278	20	7.8	18
GERMANTOWN VILLAGE	6,974	10,729	13,658	18,260	4,602	33.7	3
HARTFORD CITY (Wash Co.)	6,499	7,159	8,179	10,895	2,716	33.2	4
HARTFORD TOWNSHIP	2,368	3,269	3,243	4,031	788	24.3	9
JACKSON TOWNSHIP	2,844	3,180	3,172	3,516	344	10.8	16
JACKSON VILLAGE	561	1,817	2,486	4,938	2,452	98.6	1
KEWASKUM TOWNSHIP	1,166	1,243	1,139	1,119	-20	-1.8	21
KEWASKUM VILLAGE	1,926	2,381	2,514	3,274	760	30.2	5
MILWAUKEE CITY	0	2	0	-	0	0.0	19
NEWBURG VILLAGE (Wash. Co)	527	688	853	1,027	174	20.4	10
POLK TOWNSHIP	2,846	3,486	3,540	3,938	398	11.2	15
RICHFIELD TOWNSHIP	5,923	8,390	8,993	10,373	1,380	15.3	12
SLINGER VILLAGE	1,216	1,612	2,340	3,901	1,561	66.7	2
TRENTON TOWNSHIP	2,651	3,914	3,967	4,440	473	11.9	14
WAYNE TOWNSHIP	1,214	1,471	1,374	1,727	353	25.7	8
WEST BEND CITY	16,555	21,484	24,470	28,152	3,682	15.0	13
WEST BEND TOWNSHIP	2,779	3,588	4,165	4,834	669	16.1	11
WASHINGTON COUNTY	63,839	84,848	95,328	117,493	22,165		

Source: U.S. Census Bureau, Census 2000 Redistricting Data (Public Law 94-171) Summary File and Wisconsin Department of Administration
 Prepared by: The Planning Division, Economic Development Division and GIS Division of the Washington County Planning & Parks Dept.

Although Washington County's population is growing, it is overwhelmingly white at 98.3% versus 90.0% for the State of Wisconsin and 77.1% for the nation. In order for the economy of Washington County to remain healthy, a diverse population may be needed. Immigration should be encouraged by public policy in Washington County. Many employers in the community are providing job opportunities to minorities but the cultural and social framework may not be in place, yet.

Immigration should further be encouraged because Washington County is faced with an aging population, as are many communities across the United States. The median age in Washington County had been 36.6 years, according to the 2000 Census data. The State of Wisconsin had a median age of 36.0 years and the United States had a median age of 35.3 years. Washington County has a higher percentage of citizens between the ages of 45 and 64 than Wisconsin, at 23.4% versus 22.2%. The nation had 22.0% population within that age category. Individuals in this category will likely be retiring in the next 20 years or less. Conversely, Washington County has a slightly higher percentage of individuals under the age of 19 with 29.1% of total population compared to 28.6% for the State of Wisconsin and 28.6% for the nation. Washington County will need to provide the educational resources to these individuals under the age of 19 so that they may grow into the skilled workforce needed for a healthy economy.

Although immigration has obviously occurred in Washington County, many new residents do not work in Washington County. According to the October 2001 Washington County Workforce Profile, published by the Wisconsin Department of Workforce Development, approximately 46.5% of the employed Washington County residents commute outside Washington County for work (page 3). This high percentage of commuters is yet another reason why Washington County must have a skilled workforce.

Washington County has numerous assets when it comes to providing an educated workforce. Excellent schools are abundant throughout Washington County to train elementary and high school youth. The University of Wisconsin – Washington County has a campus located in West Bend on 87-acres. The University of Wisconsin -Washington County provides pre-professional and liberal studies coursework leading to a bachelor's degree in a variety of disciplines and also awards the Associate of Arts and Science degree. Additionally, students can finish several degrees right on campus. For example, a bachelor's degree in organization administration is available with a minor in business. The University of Wisconsin – Washington County recently added over 70,000 square feet of space that will house state-of-the-art computer facilities and science

laboratories during an \$8.4 million expansion project, providing tremendous opportunities to both the employers and employees of Washington County.

Complimenting the University of Wisconsin – Washington County, Moraine Park Technical College has a facility in Washington County, also located in West Bend with satellite sites scattered throughout the area. In addition to the excellent educational opportunities for students, as well as on-site training for employers, the Moraine Park Technical College recently completed the Applied Manufacturing Technology Center at the West Bend campus. The Applied Manufacturing Technology Center will focus on retraining and building a world-class, skilled workforce with customized educational offering and services to meet the needs of the community and manufacturing industry.

While it is critical for Washington County to have a quality workforce, there are several other issues that must be addressed in order for Washington County's economy to remain successful:

- Housing Affordability
- Wage Disparities
- Transportation

Housing affordability is critical because many employees working in Washington County are finding it more difficult to locate affordable housing in Washington County. If an individual is working in one community but lives in the second, that individual will most likely spend their paycheck in the community in which they live and be more involved in that community. Community involvement by employees is important to the success of our communities. Second, the wages paid in Washington County tend to be 16.0% lower than the metropolitan area average wage paid and 5.3% lower than the aggregate wages paid in Wisconsin. (Washington County Workforce Profile, page 6). These wage disparities make it even more difficult for employees to live in the Washington County communities where they work. Finally, transportation is an issue because as housing costs increase, many people have a more difficult time affording personal vehicles, which may necessitate a community offering a variety of transportation choices.

While the trends included in this report are not all-inclusive and great detail has not been provided regarding the trends mentioned, they will provide a general overview of a handful of issues that one must take into consideration when discussing any community economic analysis.

SUMMARY

While the information presented in this Community Economic Analysis may provide a better understanding of key factors influencing the Washington County economy and how the communities may utilize opportunities presented to grow and change, it is not meant to provide all the answers. Rather than provide solutions, a community economic analysis only provides useful information for decision-making. Furthermore, it is better to view the information provided here over a period of time in order to get a better sense regarding the direction in which Washington County is heading. In addition to reviewing the information for Washington County, the community may want to compare data for Washington County to other communities in Wisconsin or other parts of the United States.

However, as mentioned, the information presented here may provide useful insight into issues affecting Washington County's economy. As highlighted throughout the paper, Washington County relied heavily on the Manufacturing sector. Based on this analysis, Washington County should continue to strengthen its strong manufacturing base but also consider what other options are available to the community. For example, Washington County could implement strategies that attract new basic or export employers, capture existing markets, encourage the start-up of new firms, help existing firms become more efficient, and/or use aids and programs from broader levels of government. Can anything else be done in Washington County to create jobs and increase incomes?

The bottom line is that Washington County cannot afford to overlook any opportunities to grow and expand our economy. This economic analysis for Washington County is meant to provide a baseline and a starting point for the conversations to occur so that Washington County does not overlook opportunity.

APPENDIX 1: NAICS Descriptions

The Agriculture, Forestry, Fishing, and Hunting sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats. The establishments in this sector are often described as farms, ranches, dairies, greenhouses, nurseries, orchards, or hatcheries. The sector distinguishes two basic activities: agricultural production and agricultural support activities. Excluded from the Agriculture, Forestry, Hunting and Fishing sector are establishments primarily engaged in agricultural research and establishments primarily engaged in administering programs for regulating and conserving land, mineral, wildlife, and forest use. These establishments are classified in Industry 54171, Research and Development in the Physical, Engineering, and Life Sciences; and Industry 92412, Administration of Conservation Programs, respectively.

The Mining sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. The term mining is used in the broad sense to include quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparation customarily performed at the mine site, or as a part of mining activity.

The Utilities sector (sector 22) comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, sewage removal. Within this sector, the specific activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution; steam supply includes provision and/or distribution; water supply includes treatment and distribution; and sewage removal includes collection, treatment, and disposal of waste through sewer systems and sewage treatment facilities. Excluded from this sector are establishments primarily engaged in waste management services classified in Subsector 562, Waste Management and Remediation Services. These establishments also collect, treat, and dispose of waste materials; however, they do not use sewer systems or sewage treatment facilities.

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction. Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing.

The Wholesale Trade sector (sector 42) comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The wholesale sector includes: merchant wholesalers who buy and take title to the goods they sell, manufacturers sales branches and offices who sell products manufactured domestically by their own company, and agents and brokers who collect a commission or fee for arranging the sale of merchandise owned by others.

Appendix 1 Continued

The Retail Trade sector (sector 44-45) comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline. Many of the establishments in this sector often operate on networks, with physical facilities, labor forces, and equipment spread over an extensive geographic area. Excluded from this sector are establishments primarily engaged in providing travel agent services that support transportation and other establishments, such as hotels, businesses, and government agencies. These establishments are classified in Sector 56, Administrative and Support, Waste Management, and Remediation Services. Also, establishments primarily engaged in providing rental and leasing of transportation equipment without operator are classified in Subsector 532, Rental and Leasing Services.

The Information sector (sector 51) of the 1997 Economic Census comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data. The main components of this sector are the publishing industries, including software publishing, the motion picture and sound recording industries, the broadcasting and telecommunications industries, and the information services and data processing services industries.

The Finance and Insurance sector (sector 52) of the 1997 Economic Census comprises establishments of firms with payroll primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions. Three principal types of activities are identified:

1. Raising funds by taking deposits and/or issuing securities and, in the process, incurring liabilities. Establishments engaged in this activity use raised funds to acquire financial assets by making loans and/or purchasing securities. Putting themselves at risk, they channel funds from lenders to borrowers and transform or repackage the funds with respect to maturity, scale and risk. This activity is known as financial intermediation.
2. Pooling of risk by under writing insurance and annuities. Establishments engaged in this activity collect fees, insurance premiums, or annuity considerations; build up reserves; invest those reserves; and make contractual payments. Fees are based on the expected incidence of the insured risk and the expected return on investment.
3. Providing specialized services facilitating or supporting financial intermediation, insurance, and employee benefit programs. In addition, monetary authorities charged with monetary control are included in this sector.

The Real Estate and Rental and Leasing sector (sector 53) comprises establishments of firms with payroll primarily engaged in renting, leasing, or otherwise allowing the use of tangible assets (e.g. real estate and equipment), intangible assets (e.g., patents and trademarks), and establishments providing related services (e.g., establishments primarily engaged in managing real estate for others, selling, renting and/or buying real estate for others, and appraising real estate). Excluded from this sector are real estate investment trusts (REITs) and establishments primarily engaged in renting or leasing equipment with operators.

The Professional, Scientific, and Technical Services sector (sector 54) of the 1997 Economic Census covers establishments with payroll that specialize in performing professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. The establishments in this sector specialize according to expertise and provide services to clients in a variety of industries and, in some cases, to households. Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services.

Appendix 1 Continued

The Management of Companies and Enterprises sector comprises (1) Industries 551111 and 551112, Holding Companies, which include establishments that hold the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions, and (2) Industry 551114, Corporate, Subsidiary, and Regional Managing Offices, which includes establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise that normally undertake the strategic or organizational planning and decision-making role of the company or enterprise. Establishments that administer, oversee, and manage may hold the securities of the company or enterprise. Data for the two groups of industries are presented in separate reports. Establishments in this sector perform essential activities that are often undertaken, in-house, by establishments in many sectors of the economy. By consolidating the performance of these activities of the enterprise at one establishment, economies of scale are achieved. Establishments primarily engaged in providing a range of day-to-day office administrative services, such as financial planning, billing, and recordkeeping, personnel, and physical distribution and logistics are classified in Industry 56111, Office Administrative Services.

The Administrative and Support and Waste Management and Remediation Services sector (sector 56) of the 1997 Economic Census comprises establishments performing routine support activities for the day-to-day operations of other organizations. These essential activities are often undertaken in-house by establishments in many sectors of the economy. The establishments in this sector specialize in one or more of these support activities and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

The Educational Services sector (sector 61) comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. They may also offer food and accommodation services to their students. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means. It can be adapted to the particular needs of the students, for example sign language can replace verbal language for teaching students with hearing impairments. All industries in the sector share this commonality of process, namely, labor inputs of instructors with the requisite subject matter expertise and teaching ability.

The Health Care and Social Assistance sector (sector 62) of the 1997 Economic Census comprises establishments providing health care and social assistance for individuals. The services provided by establishments in this sector are delivered by trained professionals. All industries in the sector share this commonality of process, namely, labor inputs of health practitioners or social workers with the requisite expertise. Many of the industries in the sector are defined based on the educational degree held by the practitioners included in the industry.

The Arts, Entertainment, and Recreation sector (sector 71) of the 1997 Economic Census includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. This sector comprises (1) establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and (3) establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure time interests.

The Accommodation and Foodservices sector (sector 72) comprises establishments providing customers with lodging and/or prepared meals, snacks, and beverages for immediate consumption

Appendix 1 Continued

The Other Services (Except Public Administration) sector (sector 81) of the 1997 Economic Census covers establishments with payroll engaged in providing services not specifically provided for elsewhere in the North American Industry Classification System (NAICS). Establishments in this sector are primarily engaged in activities such as repair and maintenance of equipment and machinery, personal and laundry services, and religious, grantmaking, civic, professional, and similar organizations. Establishments providing death care services, pet care services, photofinishing services, temporary parking services, and dating services are also included. Private households that employ workers on or about the premises in activities primarily concerned with the operation of the household are included in this sector, but are not included in the scope of the census.

In the SIC system, auxiliary establishments (i.e., those establishments primarily serving other establishments of the same enterprise) were classified in the industry of the establishments served. In NAICS, auxiliary establishments are classified according to the services performed rather than the industry served. Corporate, subsidiary and regional managing offices are included in NAICS Sector 55, Management of Companies and Enterprises (new). In NAICS-based tables from the 1997 Economic Census, all other auxiliary establishments are included in the separate category titled "Auxiliaries, except management of companies and enterprises," and further classified into several broad NAICS industry categories based on the type of service performed. Future economic censuses will probably not differentiate these auxiliary establishments from other establishments in the same NAICS industry.

Appendix 2: Population of Wisconsin Counties

Area	Population 2000	Population 1990	Change from 1990 to 2000 Census	Percent Change from 1990 to 2000 Census	Rank
Wisconsin	5,363,675	4,891,769	471,906	9.6	
Adams County	18,643	15,682	2,961	18.9	7
Ashland County	16,866	16,307	559	3.4	61
Barron County	44,963	40,750	4,213	10.3	37
Bayfield County	15,013	14,008	1,005	7.2	52
Brown County	226,778	194,594	32,184	16.5	16
Buffalo County	13,804	13,584	220	1.6	67
Burnett County	15,674	13,084	2,590	19.8	5
Calumet County	40,631	34,291	6,340	18.5	10
Chippewa County	55,195	52,360	2,835	5.4	58
Clark County	33,557	31,647	1,910	6.0	57
Columbia County	52,468	45,088	7,380	16.4	18
Crawford County	17,243	15,940	1,303	8.2	49
Dane County	426,526	367,085	59,441	16.2	19
Dodge County	85,897	76,559	9,338	12.2	30
Door County	27,961	25,690	2,271	8.8	47
Douglas County	43,287	41,758	1,529	3.7	60
Dunn County	39,858	35,909	3,949	11.0	34
Eau Claire County	93,142	85,183	7,959	9.3	43
Florence County	5,088	4,590	498	10.8	36
Fond du Lac County	97,296	90,083	7,213	8.0	50
Forest County	10,024	8,776	1,248	14.2	23
Grant County	49,597	49,264	333	0.7	70
Green County	33,647	30,339	3,308	10.9	35
Green Lake County	19,105	18,651	454	2.4	64
Iowa County	22,780	20,150	2,630	13.1	25
Iron County	6,861	6,153	708	11.5	33

Appendix 2 Continued

Area	Population 2000	Population 1990	Change from 1990 to 2000 Census	Percent Change from 1990 to 2000 Census	Rank
Jackson County	19,100	16,588	2,512	15.1	21
Jefferson County	74,021	67,783	6,238	9.2	44
Juneau County	24,316	21,650	2,666	12.3	28
Kenosha County	149,577	128,181	21,396	16.7	15
Kewaunee County	20,187	18,878	1,309	6.9	54
La Crosse County	107,120	97,904	9,216	9.4	41
Lafayette County	16,137	16,076	61	0.4	71
Langlade County	20,740	19,505	1,235	6.3	56
Lincoln County	29,641	26,993	2,648	9.8	38
Manitowoc County	82,887	80,421	2,466	3.1	62
Marathon County	125,834	115,400	10,434	9.0	46
Marinette County	43,384	40,548	2,836	7.0	53
Marquette County	15,832	12,321	3,511	28.5	1
Menominee County	4,562	3,890	672	17.3	14
Milwaukee County	940,164	959,275	(19,111)	-2.0	72
Monroe County	40,899	36,633	4,266	11.6	32
Oconto County	35,634	30,226	5,408	17.9	12
Oneida County	36,776	31,679	5,097	16.1	20
Outagamie County	160,971	140,510	20,461	14.6	22
Ozaukee County	82,317	72,831	9,486	13.0	26
Pepin County	7,213	7,107	106	1.5	68
Pierce County	36,804	32,765	4,039	12.3	27
Polk County	41,319	34,773	6,546	18.8	8
Portage County	67,182	61,405	5,777	9.4	42
Price County	15,822	15,600	222	1.4	69
Racine County	188,831	175,034	13,797	7.9	51
Richland County	17,924	17,521	403	2.3	65
Rock County	152,307	139,510	12,797	9.2	45

Appendix 2 Continued

Area	Population 2000	Population 1990	Change from 1990 to 2000 Census	Percent Change from 1990 to 2000 Census	Rank
Rusk County	15,347	15,079	268	1.8	66
Sauk County	55,225	46,975	8,250	17.6	13
Sawyer County	16,196	14,181	2,015	14.2	24
Shawano County	40,664	37,157	3,507	9.4	40
Sheboygan County	112,646	103,877	8,769	8.4	48
St. Croix County	63,155	50,251	12,904	25.7	2
Taylor County	19,680	18,901	779	4.1	59
Trempealeau County	27,010	25,263	1,747	6.9	55
Vernon County	28,056	25,617	2,439	9.5	39
Vilas County	21,033	17,707	3,326	18.8	9
Walworth County	93,759	75,000	18,759	25.0	3
Washburn County	16,036	13,772	2,264	16.4	17
Washington County	117,493	95,328	22,165	23.3	4
Waukesha County	360,767	304,715	56,052	18.4	11
Waupaca County	51,731	46,104	5,627	12.2	29
Waushara County	23,154	19,385	3,769	19.4	6
Winnebago County	156,763	140,320	16,443	11.7	31
Wood County	75,555	73,605	1,950	2.6	63

Source: U.S. Census Bureau, Census 2000 Summary File 1 and Census 1990 Summary Tape File 1

Prepared by: The Planning Division, Economic Development Division and GIS Division of the Washington County Planning and Parks Department.

APPENDIX 3: Wisconsin Employment Projections: 1998-2008

SIC Code	Industry Title	1998 Estimated Annual Average Employment	2008 Projected Employment	1998 - 2008 Employment Change	1998 - 2008 Percent Change
0	Total All Industries (1)	2,907,690	3,295,820	388,130	13.3%
A	Agricultural Services, Total	13,830	18,280	4,450	32.2%
0	Agricultural Services	13,830	18,280	4,450	32.2%
B	Mining, Total	2,750	2,700	(50)	-1.8%
10-13	Metallic Minerals and Fuels	70	60	(10)	-14.3%
14	Nonmetallic Minerals, except Fuels	2,680	2,640	(40)	-1.5%
C	Construction, Total	112,530	124,800	12,270	10.9%
15	General Building Contractors	28,100	30,600	2,500	8.9%
16	General Contractors, except Bldg.	11,860	12,680	820	6.9%
17	Special Trade Contractors	72,570	81,520	8,950	12.3%
D	Manufacturing, Total	616,720	642,200	25,480	4.1%
D1	Durable Goods Manufacturing, Total	377,870	391,000	12,130	3.5%
24	Lumber and Wood Products	31,200	33,200	1,980	6.3%
25	Furniture and Fixtures	17,690	20,100	2,410	13.6%
32	Stone, Clay, and Glass	10,870	12,100	1,230	11.3%
33	Primary Metal Industries	25,570	26,300	730	2.9%
34	Fabricated Metal Products	68,770	73,100	4,330	6.3%
35	Industrial Machinery and Equipment	115,490	115,800	310	0.3%
36	Electronic & Other Electrical Equipment	46,440	47,600	1,160	2.5%
37	Transportation Equipment	32,550	32,800	250	0.8%
38	Instruments and Related Products	17,940	18,400	460	2.6%
39	Misc. Manufacturing Industries	11,320	11,600	280	2.5%
D2	Nondurable Goods Manufacturing, Total	238,850	251,200	12,350	5.2%
20	Food & Kindred Products	64,990	64,900	(90)	-0.1%
22	Textile Mill Products	2,820	2,200	(620)	-22.0%
23	Apparel and Textile Products	6,240	5,700	(540)	-8.7%
26	Paper & Allied Products	53,020	53,700	680	1.3%
27	Printing & Publishing	55,220	61,000	5,780	10.5%

**APPENDIX 3:
Continued**

SIC Code	Industry Title	1998 Estimated Annual Average Employment	2008 Projected Employment	1998 - 2008 Employment Change	1998 - 2008 Percent Change
28	Chemicals & Allied Products	14,690	16,600	1,910	13.0%
29	Petroleum and Coal Products	370	400	30	8.1%
30	Rubber & Misc Plastics Products	37,120	43,800	6,680	18.0%
31	Leather & Leather Products	4,390	2,900	(1,490)	-33.9%
E	Transportation, Communications, Utilities, Total	142,560	157,680	15,120	10.6%
E1	Transportation, Total	107,930	120,420	12,490	11.6%
40	Railroad Transportation	3,990	3,110	(880)	-22.1%
41	Local and Interurban Transit	15,570	20,310	4,740	30.4%
42	Trucking and Warehousing	51,610	55,680	4,070	7.9%
43	U.S. Postal Service (2)	15,710	16,880	1,170	7.4%
44	Water Transportation	2,040	2,050	10	0.5%
45	Transportation by Air	12,370	14,170	1,800	14.6%
46	Pipe Lines, except Natural Gas	110	100	(10)	-9.1%
47	Transportation Services	6,530	8,130	1,600	24.5%
E2	Communications and Utilities, Total	34,630	37,260	2,630	7.6%
48	Communications	17,950	20,660	2,710	15.1%
49	Utilities and Sanitary Services	16,680	16,600	(80)	-0.5%
F	Wholesales and Retail Trade, Total	609,470	672,300	62,830	10.3%
F1	Wholesale Trade, Total	136,410	152,800	16,390	12.0%
50	Wholesale Trade, Durable Goods	79,180	87,180	8,000	10.1%
51	Wholesale Trade, Nondurable Goods	57,230	65,620	8,390	14.7%
F2	Retail Trade, Total	473,060	519,500	46,440	9.8%
52	Bldg. Materials & Garden Supplies	23,450	25,160	1,710	7.3%
53	General Merchandise Stores	61,580	66,000	4,420	7.2%
54	Food Stores	64,460	68,200	3,740	5.8%
55	Auto Dealers & Service Stations	55,560	61,400	5,840	10.5%
56	Apparel and Accessories Stores	16,420	14,530	(1,890)	-11.5%
57	Furniture & Home Furnishing Stores	17,610	20,100	2,490	14.1%

**APPENDIX 3:
Continued**

SIC Code	Industry Title	1998 Estimated Annual Average Employment	2008 Projected Employment	1998 - 2008 Employment Change	1998 - 2008 Percent Change
58	Eating and Drinking Places	165,340	181,280	15,940	9.6%
59	Miscellaneous Retail Stores	68,660	82,840	14,180	20.7%
G	Finance, Insurance, and Real Estate, Total	143,780	163,800	20,020	13.9%
60	Depository Institutions	43,330	46,200	2,870	6.6%
61	Nondepository Institutions	6,730	9,250	2,520	37.4%
62	Security & Commodity Brokers	7,070	10,660	3,590	50.8%
63	Insurance Carriers	54,110	48,700	3,590	8.0%
64	Insurance Agents, Brokers, & Services	15,670	18,490	2,820	18.0%
65	Real Estate	19,190	22,960	3,770	19.6%
67	Holding & Other Investment Offices	6,680	7,550	870	13.0%
H	Services, Total	1,097,070	1,327,500	230,430	21.0%
70	Hotels & Other Lodging Places	29,530	36,750	7,220	24.4%
72	Personal Services	25,420	29,820	4,400	17.3%
73	Business Services	134,910	182,800	47,890	35.5%
75	Auto Repair Services and Parking	20,410	29,750	9,340	45.8%
76	Misc Repair Services	5,190	5,840	650	12.5%
78	Motion Pictures	7,190	8,220	1,030	14.3%
79	Amusement & Recreation Services	28,860	39,090	10,230	35.4%
80	Health Services (3)	224,900	270,430	45,530	20.2%
81	Legal Services	13,150	17,230	4,080	31.0%
82	Educational Services (3)	235,470	26,730	31,960	13.6%
83	Social Services	70,470	95,600	25,130	35.7%
84	Museums, Botanical, Zoological Garden	1,270	1,840	570	44.9%
86	Membership Organizations	65,720	76,000	10,280	15.6%
87	Engineering & Management Services	37,060	51,520	14,460	39.0%
H1	Self-Employed, Unpaid Family Workers, Private Household Workers, Total	197,040	214,510	17,470	8.9%
881(4)	Private Households	6,450	5,400	(1,050)	-16.3%
883(5)	Self-Employed	188,410	206,840	18,430	9.8%
884(6)	Unpaid Family Workers	2,180	2,270	90	4.1%

**APPENDIX 3:
Continued**

SIC Code	Industry Title	1998 Estimated Annual Average Employment	2008 Projected Employment	1998 - 2008 Employment Change	1998 - 2008 Percent Change
89	Services, n.e.c.	480	680	200	41.7%
I	Government, Total	168,970	186,560	17,590	10.4%
91	Federal Government (2)	13,960	13,220	(740)	-5.3%
92	State Government, exc. Education & hospital (7)	34,100	38,370	4,270	12.5%
93	Local Government, exc. Education & hospital (7)	120,910	134,970	14,060	11.6%

(1) Totals include all self-employed and unpaid family workers but only Agricultural Services (SIC 07) from the Agriculture Industry.

(2) Postal Service employment was taken out of Federal Government employment and is shown as SIC 43.

(3) Includes State & Local Government employment.

(4) This code is used for occupational projection purposes. This code includes all people who are employed by private households.

(5) This code is used for occupational projection purposes. This code includes all people who are self-employed, regardless of industry.

(6) This code is used for occupational projection purposes. This code includes all family members who work unpaid in family-owned business, regardless of the industry.

(7) State & Local Government employment in Education and Hospitals is removed and included with Educational Services (SIC 82) and Health Services (SIC 80).

Employment rounded to nearest 10.

Numbers may not add due to rounding.

Employment derived using data from 1998 current Employment Statistics (1999 Benchmark), 1998 Covered Employment and Wages, and unpublished data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau.

Source: DWD, Bureau of Labor Market Information and Customer Services, Projections Unit. February 2001.

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