

INDUSTRY CLUSTER AND ECONOMIC IMPACT ANALYSIS

Edina, Minnesota, USA

January 2017

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Prepared for the Edina Chamber of Commerce

This report presents an analysis of Industry Clusters and their economic impact in the city of Edina, Minnesota, USA. This report has been produced as part of the development of a long-term economic development initiated by the Edina Chamber of Commerce.

January 2017

PREPARED BY:

future→iQ



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1.0 INTRODUCTION

The City of Edina is a prosperous, inner ring suburb in the southwestern area of the Twin Cities region of Minneapolis and St. Paul, Minnesota. The region has an extensive economic history, first as an agrarian and forestry center, then a manufacturing hub to service those industries along with a thriving mining industry, and more recently as a national and global leader in financial services, biomedical sciences, and information technology. Edina's residents have played a critical role in the growth of many of these sectors and the community continues to enjoy the region's prosperity. The community boasts a reputation as a sought-after address, world-class schools, and extensive amenities.

Over the past several years, a number of Edina's community leaders have started to consider the ways that the community has adapted and continues to evolve to meet the challenges and opportunities of the twenty-first century.

These conversations resulted in the Vision Edina initiative in 2014 and the adoption of a regional action strategy in 2015. The dialogue addressed a range of community assets extending from housing to education and cultural and environmental amenities. The study presented here continues this conversation by serving as the analytic basis for a broad consideration of the structure and growth of the community's economy.

The Edina Chamber of Commerce has contracted with Future iQ to guide the development of an organizational strategy for the Edina Chamber of Commerce that considers its role in the economic development activities of the region. There is a growing recognition that the community faces intense competition from other communities throughout the region for business and residents. In order to ensure a strategic advantage, the community and its leaders must first understand the significance of its assets and then craft a comprehensive strategy that leverages these assets for future growth.

The industry cluster and economic impact analysis that follows represents a glimpse into Edina's business community. The concept of analyzing a community's economy through the identification of industry clusters has been a principle of economic development practice for the past two decades. It allows us to both consider which industries are currently prominent in the community as well as those whose growth may lead to future prominence. Such an approach also gives us some sense as to how the community's economy is integrated into the Twin Cities' regional economy at large.



The analysis identifies the character of the community as one of a robust service-oriented economy. In doing so, it further indicates that the community's economic vitality is increasingly tied to the attractiveness of its businesses to residents throughout the region, both for the services they provide and employment opportunities. This points to the prominence of the community's businesses within the immediate region and the possibility of additional growth both in existing clusters and new opportunities.

The Edina community economy has the potential to play an impactful role in the Twin Cities economy. This potential is formed both by the prominence of the local clusters identified in this analysis as well as the significant redevelopment opportunities considered as part of a comprehensive economic development strategy. The community is well-positioned to engage in a thoughtful conversation, in the tradition of Vision Edina, regarding what it wishes its economy to be in the next several decades. This analysis will help to inform this conversation.

1.1 ABOUT VISION EDINA

The Vision Edina initiative was an ambitious, broad-based and inclusive community visioning process, and serves as an important foundation for the City's Comprehensive Plan. Future iQ researched emergent future trends in cities across North America and the world to understand how urban living and generational values are changing. Through a scenario-based strategic planning process, this information was linked to local aspirations, values and citizen's desires for the future. This enabled a clear understanding of the future vision citizens' have for Edina in 2030 and beyond.

Future iQ's Roles Included:

- Designed and facilitated the 12-month planning process during 2014 and 2015.
- Conducted unique background research on urban and city trends.
- Benchmarked Edina against similar high-end inner ring city locations.
- Facilitated the Edina future 'Think-Tank' process to develop future scenarios.
- Engaged over 800 stakeholders in detailed discussions and surveys.
- Through detailed data analysis, defined a shared vision and preliminary action plan.

You can find more information on Vision Edina at: <http://visionedina.com>.

2.0 COMMUNITY PROFILE

We must understand the basic character of Edina's community and its economy before more carefully considering the nature of its prominent industry clusters. In doing so, this section updates certain elements of the Vision Edina Community Profile and Benchmark Analysis and expands the conversation by also considering a series of supplemental characteristics. In sum, we see that Edina is currently enjoying another period of significant population and economic growth. This again presents community leaders with a prime opportunity to consider their economic future.

2.1 POPULATION CHARACTERISTICS

The city of Edina, Minnesota is located in southwestern Hennepin County and is part of the Minneapolis – St. Paul Metropolitan Statistical Area. The Twin Cities region is home to more than 3.4 million residents and is the sixteenth largest metropolitan area in the United States. Edina's population of 50,766 in 2015 represents a community that is a vibrant, inner ring suburb in a growing metropolitan region. The city's population has increased by more than 2,800 residents since 2010, including more than 1,100 new households.

The city of Edina has grown from an agrarian center in the nineteenth century to a vibrant suburban community, benefiting from its proximity to Minneapolis and the broader economic and social trends that shaped much of post-World War II America. It has further developed to boast a vibrant and diverse economy along with significant civic and private investments. The high standard of living enjoyed by many of the community's residents is both a source of pride, as well as an asset that attracts both young families and mature residents.

Figure 1: Edina's Population in Brief

Population	50,766	Population under age 18	19.2%
Population Growth (since 2000)	7.50%	Population over age 65	20.3%
Median Age	44.5 Years	Population with a Bachelor's Degree or Higher	67.9%
Male	47.6%	Home Ownership Rate	70.0%
Female	52.4%	Median Home Value	\$393,100

Source: American Community Survey 2010-2014 Five-Year Sample, United States Census Bureau

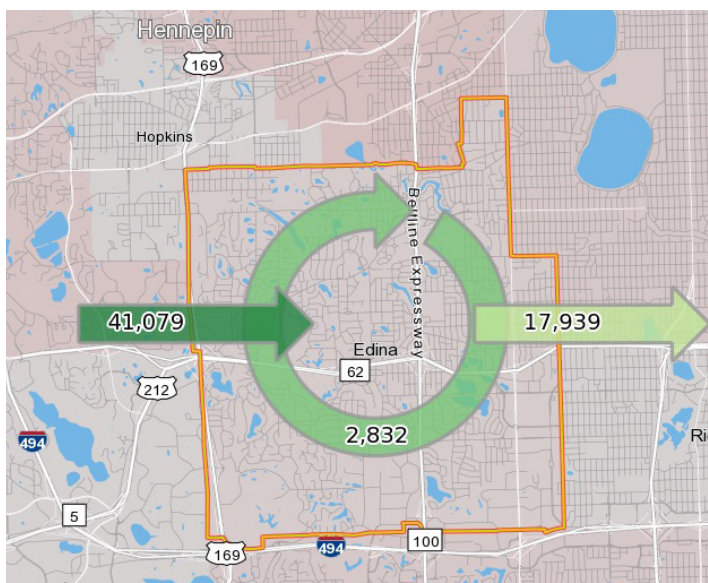
2.2 HOUSEHOLD INCOME CHARACTERISTICS

The median household income of Edina's residents of \$86,968 is nearly 63 percent above the national average, yet is only near the median when compared to other suburbs in the Minneapolis-St. Paul region. What distinguishes the city of Edina from its neighbors, however, is its close proximity to the central business district of downtown Minneapolis. The community compares favorably against other inner-ring suburbs in the region, as well as those destination communities identified in the benchmark cohort.

Forty-three percent of Edina's households earn more than \$100,000 annually. Also of note is the fact that 42 percent of the community's households are single-worker households, a percentage that is well above both the national and benchmark average. The mean income in these households is also 90 percent higher than the cohort average at more than \$330,000. Edina boasts three of the wealthiest zip codes in Minnesota. This suggests the potential for significant future income growth as more young families are attracted to the community.

2.3 EMPLOYMENT AND WAGE CHARACTERISTICS

Our attention now turns to the employment characteristics of the region. Specifically, we will focus on the characteristics of those who work in Edina. This focus is important as the intent of the proposed economic development strategy is to build new businesses and employment within the community. Further, this focus also sheds light on the importance of a broader regional labor shed in serving the needs of the community's employers. This is depicted in Figure 2.

Figure 2: Inflow and Outflow of Workers in Edina

Source: On The Map, United States Census Bureau, 2014

We first see that, in 2014, 43,911 individuals were employed by Edina firms. Of this, 93.6 percent of workers came from outside of the community. Conversely, 17,939, or 86.6 percent of Edina residents worked outside of the community. This disparity is not entirely surprising given the close proximity of the community to downtown Minneapolis (5,396 residents commute there daily), and other large employment centers. This pattern is also exhibited in a number of other communities throughout the region, pointing to the presence of a large and dynamic labor market. This realization is important as it is clear that the Edina employment base could not be filled by solely relying on community residents.

2.3.1 EMPLOYMENT CHARACTERISTICS OF EDINA INDUSTRIES

Now that we have identified the levels of employment bases in the Edina economy, we must next consider different levels of industry employment. The industry distribution of jobs in the Edina economy is presented in Figure 3.

Figure 3: Industry Employment of Edina Employment

	Number of Employees	Share	Employment Change Since 2010
Agriculture, Forestry, Fishing and Hunting	6	0.0%	500.0%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0.0%
Utilities	0	0.0%	0.0%
Construction	771	1.8%	53.3%
Manufacturing	1,692	3.9%	-14.8%
Wholesale Trade	1,828	4.2%	5.4%
Retail Trade	3,343	7.6%	-13.6%
Transportation and Warehousing	211	0.5%	1.0%
Information	557	1.3%	-15.7%
Finance and Insurance	2,848	6.5%	-82.1%
Real Estate and Rental and Leasing	1,369	3.1%	-4.0%
Professional, Scientific, and Technical Services	4,084	9.3%	3.4%
Management of Companies and Enterprises	1,557	3.5%	-57.9%
Administration & Support, Waste Management and Remediation	5,775	13.2%	21.8%
Educational Services	2,239	5.1%	-2.1%
Health Care and Social Assistance	9,544	21.7%	32.0%
Arts, Entertainment, and Recreation	688	1.6%	93.3%
Accommodation and Food Services	4,943	11.3%	6.0%
Other Services (excluding Public Administration)	2,047	4.7%	24.5%
Public Administration	409	0.9%	-36.4%
Totals	43,911	100%	14.1%

Source: Local Employment Dynamics, United States Census Bureau, 2014

The community's most dominant industry is Health Care and Social Assistance (21.7 percent of employment). The community has a large and regionally-important health care industry. The shape of this sector will be more fully explored in the industry analysis that follows. Other large industries include Accommodation and Food Services (11.3 percent), Professional and Technical Services (9.3 percent), and Retail Trade (7.9 percent). When considered in total, these four industries account for more than half of the jobs in the community. This significance will again be discussed in further detail in the industry analysis.

One final note that should be considered here is the role and importance of the Administration and Support, Waste Management and Remediation industry. This industry accounts for 13.2 percent of total employment, or nearly 5,800 jobs. The industry character does not strictly align with its title as the largest industry sub-sector in the category is Employment Services, which includes employment attributed to staffing agencies. As such, much of this employment is actually engaged in other industries ranging from manufacturing to health care rather than engaged in trash removal and recycling.

Turning our attention to employment growth over a four-year period we see that a number of industries have exhibited tremendous growth over the course of this period. One outlier – Agriculture, Forestry, Fishing, and Hunting can be ignored as it represents an increase of five workers. Other prominent industries have been especially dynamic.

HEALTHCARE INCREASED BY 2,143 POSITIONS

Employment in the community's largest industry – Health Care and Social Assistance has increased by 32.3 percent or 2,143 positions.

WASTE MANAGEMENT INCREASED BY 2,143 POSITIONS

Considerable employment growth also occurred in the Administration and Support, Waste Management and Remediation (1,032 positions), and Construction industries (288 positions). Construction growth is especially important as the community has experienced significant residential and commercial construction activity over this period.

CONSTRUCTION INCREASED BY 288 POSITIONS

There have also been a number of industries that have experienced significant employment losses over this same period. Of particular note are the losses observed in the Finance and Insurance (-13,099 positions), and Management of Companies and Enterprises industries (-2,143 positions) over the four-year period. This period was punctuated by the relocation of the Great Clips corporate headquarters and the consolidation and relocation of Nash Finch. These losses are both a function of the lingering effects of the global recession of 2007-2009 and the competitiveness of the regional real estate market. Large firms are frequently courted to relocate to other commercial developments in the region, leading to the relocation of companies without a loss in regional employment. Edina and other inner-ring suburbs are especially susceptible to these forces as other communities may offer more and desirable land for development. The Pentagon Park redevelopment site offers a significant opportunity to reverse this trend.

A secondary characteristic of local employment is compensation. We know that many of Edina's residents are high wage earners. When we look at the distribution of earnings by those who are employed by local firms, we see that there is a normal distribution of wage levels, as presented in Figure 4.

Figure 4: Employment by Earnings

	Count	Share
\$1,250 per month or less	10,003	22.8%
\$1,251 to \$3,333 per month	13,013	29.6%
More than \$3,333 per month	20,895	47.6%

Source: Local Employment Dynamics, United States Census Bureau, 2014

It is important to note that the wage levels presented in Figure 4 are monthly averages and do not account for variations in earnings, such as commission wages or seasonal employment. It is also important to note that the annual average wages indicated in this distribution vary from \$15,000 to nearly \$40,000. We know that a significant share of wage earners in the highest third earn significantly more than the lower bound, making a specific comparison difficult. This distribution has changed slightly since 2010, with fewer workers earning at the top end of the distribution (47.6 percent compared to 54.4 percent). It is again difficult to ascertain what changes this may have had on the wage distribution, though it is likely that the losses experienced in the Finance and Insurance and Management of Companies and Enterprises industries had a significant impact.

2.3.2 EMPLOYMENT CHARACTERISTICS OF EDINA RESIDENTS

Shifting our attention to the employment characteristics of those who live in Edina, we see that the industry distribution of these workers differs from that of local firms. This points first to the nature of a regional labor market. The industry employment distribution of Edina residents is presented in Figure 5.

Figure 5: Industry Employment for Edina Residents

	Number of Employees	Share
Agriculture, Forestry, Fishing and Hunting	13	0.1%
Mining, Quarrying, and Oil and Gas Extraction	11	0.1%
Utilities	41	0.2%
Construction	527	2.5%
Manufacturing	1,303	6.3%
Wholesale Trade	1,281	6.2%
Retail Trade	1,666	8.0%
Transportation and Warehousing	391	1.9%
Information	597	2.9%
Finance and Insurance	1,946	9.4%
Real Estate and Rental and Leasing	660	3.2%
Professional, Scientific, and Technical Services	2,265	10.9%
Management of Companies and Enterprises	1,410	6.8%
Administration & Support, Waste Management and Remediation	1,056	5.1%
Educational Services	2,017	9.7%
Health Care and Social Assistance	2,985	14.4%
Arts, Entertainment, and Recreation	293	1.4%
Accommodation and Food Services	1,190	5.7%
Other Services (excluding Public Administration)	616	3.0%
Public Administration	503	2.4%
Total	20,711	100%

Source: Local Employment Dynamics, United States Census Bureau, 2014

The first and perhaps most significant disparity is the concentration of employment in the Health Care and Social Assistance industry. Employment of Edina residents in this industry is seven percent less than the employment concentration in Edina. The concentration of employees in the Finance and Insurance, Management of Companies and Enterprises, and Professional, Scientific, and Technical Services industries is slightly higher among Edina residents than among Edina companies. Manufacturing employment concentration is also higher.

These differences point to a few general conclusions. First, we know that the industry composition in any regional economy is diversified. As such, we should not expect the concentration of employment to be the same in the industries in Edina and the greater region. Second, we know that the labor market for both the companies in Edina and its residents extends well beyond the city's boundaries. A few prominent industries have already emerged through this preliminary analysis, with recent growth pointing to further concentration in these key sectors. This builds a strong case for the use of industry clusters as a means of understanding how these industries and firms relate to each other. We must first identify those industries that are the most prominent in the Edina economy. This will be the focus of the next section.

3.0 EDINA COMMUNITY INDUSTRY ANALYSIS

The industry analysis presented in this section builds off of the data presented in the community profile. We already have a sense that a number of industries, such as Health Care and Social Assistance and Professional and Business Services play a prominent role in Edina's economy. The industry analysis will provide greater clarity to these assumptions by determining the specific significance of these industries and their growth potential.

3.1 INDUSTRY ANALYSIS DATA AND METHODOLOGY

The first step in compiling an industry analysis of the Edina economy is to determine the most appropriate data source. In most cluster studies, analysts rely on data from a number of public sources, such as the United States Bureau of Labor Statistics and Census Bureau to provide data on industry employment and revenue. Unfortunately, this is not possible in the case of the Edina economy as most public data sources are not published at the city or community level.

As a consequence, our analysis depends, to a large degree on self-reported data gathered from the community's businesses. There are a number of data services that collect this data for use in the banking, credit and other sectors. Data was obtained from two of these services – Infogroup and Dun and Bradstreet. Data was collected from 1,356 businesses with a mailing address in Edina. This does not consider all businesses in the community as there are a number of home-based businesses and sole proprietorships that report no employment. The data presented here is reported for 2014, the most recent year for which data from all reporting businesses is available.

The dataset collected in this analysis contains an extensive level of detail on the community's businesses, including firm name, address, date of establishment, and ownership type. Of particular importance to the current analysis are four data elements:

- **Business industry sector, as identified by their primary North American Industrial Classification Series (NAICS) code. Firms may actually have as many as six different NAICS codes assigned, but the first represents their principal activity.**
- **Current employment levels by firm. This is represented by the actual employment level at the time of survey contact.**
- **2009-2014 employment growth. This is reported as a percentage, rather than a count of employees.**
- **2014 annual revenue by firm. This is either publicly-reported or estimated at the time of survey contact.**

The dataset presented a pair of substantial challenges. First, data was not reported for all categories for all firms. Any firm that had missing data was excluded from the analysis. This largely applies to property development firms and a small number of sole proprietorships.

Second, there are a number of firms whose corporate headquarters are located in Edina. These firms may choose to report all or some of its employment and revenue at this location. This was true of two firms – Century Link Communication and Regis Corporation. These two firms combined account for more than 100,000 reported employees and \$16.5 billion in revenue in 2014. This is substantially more than any other employers in the community. These firms were excluded from the analysis since local employment and revenue levels for these firms cannot be verified. These firms will, however play an important role in their respective industry clusters.

3.1.1 ABOUT LOCATION QUOTIENTS

The most common method to identify and measure the strength of industries in any region is through the calculation of location quotients (LQ). A location quotient is the representation of the concentration of employment, establishments, or revenue in a given region compared to the concentration of the same measure in a reference area. This provides a rough approximation of the importance of an industry to the regional economy as it suggests that the industry cluster has a larger impact on the region than to a standard benchmark.



Average employment data for 2014 was compiled for every industry sector (3-digit NAICS-level) in Edina. This was compared to 2014 annual average employment data for the Minneapolis-St. Paul Metropolitan Statistical Area (MSA). This data was compiled from the United States Census Bureau's Local Employment Dynamics program. The selection of the Twin Cities region is significant as the industry clusters identified here represent regional leaders. Similar specifications were calculated for the State of Minnesota and the United States. However, the most impactful and statistically significant location quotients were identified at the MSA level, as presented in these findings.

Any location quotient with a value over one suggests that the industry has an employment or revenue concentration greater than the reference area. In this case, this suggests that the industry is more prominently located here than in other part of the Twin Cities.

3.2 THE MOST PROMINENT LOCAL INDUSTRIES

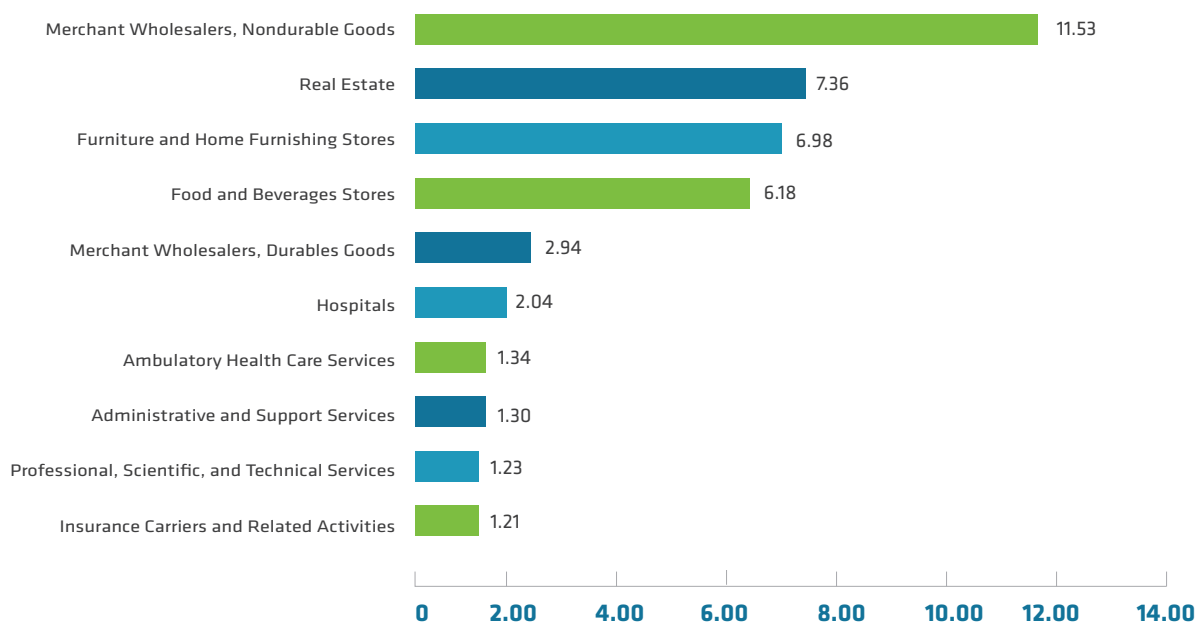
Employment location quotients were calculated for seventy industry sectors in Edina. It is important to note that local employment does not exist in every industry in the broader region. This is especially true of many manufacturing sectors, transportation and logistics sectors, and certain levels of government employment. The location quotients range from a low of 0.01 for the Motor Vehicle and Parts Dealers sector to a high of 14.21 for Beverage and Tobacco Product Manufacturing. Since a location quotient is a relative measure, industries may have a low LQ despite high levels of local employment, such as Food Service and Drinking Places (1,060 employees, LQ of 0.59), or a high LQ and low levels of location employment, as is the case in the Rail Transportation sector (8 local employees, LQ of 10.08). To determine which industries are the most prominent, a base employment threshold of 500 local employees in the industry sector was established. The characteristics of these industries are included in Figure 6.



Figure 6: Characteristics of Edina's Most Prominent Industries

	Industry	Twin Cities Location Quotient	2014 Employees	2014 Revenue/Year	5-Yr. Employment Growth
424	Merchant Wholesalers, Nondurable Goods	11.53	5,730	\$4,526,698,781	20.4%
531	Real Estate	7.36	3,963	\$978,288,747	19.5%
445	Food and Beverage Stores	6.18	3,701	\$703,216,962	14.5%
541	Professional, Scientific, and Technical Services	1.23	2,764	\$522,753,777	20.9%
423	Merchant Wholesalers, Durable Goods	2.94	2,547	\$1,681,234,520	23.4%
561	Administrative and Support Services	1.30	2,382	\$330,046,809	16.3%
622	Hospitals	2.04	2,255	\$328,954,740	5.7%
621	Ambulatory Health Care Services	1.34	2,049	\$418,235,753	15.0%
524	Insurance Carriers and Related Activities	1.21	1,177	\$157,629,625	43.5%
442	Furniture and Home Furnishings Stores	6.98	889	\$193,423,028	6.1%
452	General Merchandise Stores	1.37	871	\$273,025,104	44.0%
312	Beverage and Tobacco Product Manufacturing	17.81	810	\$18,027,986	69.6%
333	Machinery Manufacturing	2.39	806	\$466,213,044	23.4%
511	Publishing Industries (except Internet)	3.02	730	\$87,451,314	10.7%
813	Religious, Grant Making, Civic, Professional, and Similar Organizations	1.45	619	\$1,960,027,845	14.0%
448	Clothing and Clothing Accessories Stores	2.54	612	\$78,891,397	20.2%
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	1.79	582	\$152,895,106	39.7%
713	Amusement, Gambling, and Recreation Industries	1.43	570	\$7,164,921	34.7%
Total			33,057	\$12,884,179,459	24.5%

Source: Dun and Bradstreet, Infogroup, Local Employment Dynamics, U.S. Census Bureau, and Author's Calculations

Figure 7: Location Quotients of Edina's Most Prominent Industries

Source: Dun and Bradstreet, Infogroup, Local Employment Dynamics, U.S. Census Bureau, and Author's Calculations

A number of notable findings emerge in this analysis. First, we see that the industry with the highest relative location quotient is the Merchant Wholesalers, Nondurable Goods industry sector (LQ of 11.53). This industry is represented by a number of large grocers and other food distribution concerns. The high location quotient suggests that the region and larger market greatly benefits from the concentration of these firms in Edina. This industry is joined by wholesalers of durable goods (LQ of 2.94) to form a strong wholesale distribution industry in the community. This industry is bookended by counterpart industry sectors on the retail side (Furniture and Home Furnishing Stores and Food and Beverage Stores) to form a more generalized traded goods.

A second notable industry cluster grouping clearly emerges around medical care. This is represented most prominently by Hospitals (LQ of 2.04) and Ambulatory Health Care Services sectors (LQ of 1.34). These two large industries are further supported by employment and activities in the Administrative and Support Services and Professional, Scientific and Technical Services industry sectors (LQ of 1.30 and 1.23). This forms the basis of the second prominent industry cluster in the Edina regional economy.

A third industry cluster is loosely defined around personal and institutional financial services, as represented by the Real Estate (LQ of 7.36) and Insurance Carriers and Related Activities industries (LQ of 1.21). These two sectors are joined by others with smaller location quotients throughout the Financial Activities industry to represent an important industry cluster that both supports the activities of the other prominent local clusters as well as customers throughout the region.

Two other industry clusters bear mentioning in light of the exclusion of the three large firms referenced earlier. The telecommunications industry has a significant presence in the Edina region. This includes a large number of executive and technical personnel. Similarly, the educational services industry plays a notable role in the regional economy, with employment and revenue extending beyond Edina Public Schools and its partner institutions to include other supportive industries. A clear intention to further develop each of these sectors was noted in the community focus groups that were recently held around the economic development strategy. The strong presence of existing firms in these industries points to some future development potential.

The most prominent industry sectors identified in the location quotient analysis are populated by several large and important local firms. While it is outside of the scope of this analysis to detail the characteristics of every firm in the community, an accompanying project delivered to the Edina Department of Economic Development will provide this detail for local decision making. It is still important to consider the dynamics of several firms to ground these prominent sectors in a local context. The firms presented in Figure 8 are those local firms with a minimum of 200 employees. They are further identified by a potentially relevant industry cluster.

Figure 8: Characteristics of Local Firms in Prominent Industry Clusters

Business Name	Industry Description	Local Employment	Local Revenue	5 Year % Employee Growth	Industry Cluster
Spartan Nash (regional employment)	General Line Grocery Merchant Wholesalers	4,685	\$4,492,915,000	0.0%	Trade
Edina Realty	Offices of Real Estate Agents and Brokers	3,080	\$729,960,000	67.8%	Personal and Financial Services
Universal Hospital Services Inc.	Medical, Dental and Hospital Equipment and Supplies Merchant Wholesalers	2,087	\$1,448,378,000	0.0%	Health Care Sciences and Services
Fairview Southdale Hospital	General Medical and Surgical Hospitals	2,000	\$318,897,000	-7.0%	Health Care Sciences and Services
Regis Corporation	Beauty Salons	999	\$1,910,000,000	0.0%	Trade
Gabberts Furniture & Design	Furniture Stores	728	\$158,704,000	0.0%	Trade
Western National Insurance Group	Insurance Agencies and Brokerages	454	\$56,750,000	42.9%	Personal and Financial Services
Barr Engineering Co	Engineering Services	432	\$82,512,000	0.0%	Telecommunications
Evolution1	Data Processing, Hosting, and Related Services	350	\$70,044,975	34.1%	Telecommunications
Design Studio Of Gabberts	Interior Design Services	333	\$39,302,159	0.0%	Personal and Financial Services
Southdale YMCA	Child and Youth Services	333	\$56,610,000	38.9%	Personal and Financial Services
Interlachen Country Club	Golf Courses and Country Clubs	244	\$25,041,720	9.5%	Personal and Financial Services
Edina Country Club	Golf Courses and Country Clubs	220	\$22,578,600	27.5%	Personal and Financial Services
Altair Ventures	Offices of Real Estate Agents and Brokers	211	\$51,322,184	0.0%	Personal and Financial Services
Macy's	Department Stores	200	\$227,772,000	91.6%	Trade
Edina Care Center	Nursing Care Facilities	200	\$20,000,000	0.0%	Health Care Sciences and Services
Total		16,566	\$9,717,787,638		

Source: Dun and Bradstreet, Infogroup. The data does not include information on a number of companies such as the City of Edina and Edina Public Schools that report employment for multiple locations.

We see that four firms – Spartan Nash, Edina Realty, United Hospital Services, Inc., and Southdale Hospital each account for more than 2,000 employees. These four firms combine to account for 11,852 positions, which is more than half of the total reported employment in the community. It is important to note that the employment figures cited above are estimates and may not reflect true local employment. The fact holds, nonetheless that each of these firms plays a significant role in the local economic landscape.

It is important to note that one industry – educational services is not represented by one of the largest employers listed in Figure 7. We know that Edina Public Schools employed nearly 900 teachers, administrators and staff in 2014. However, the focus of the educational services cluster is somewhat more aspirational as the community's stakeholders have signaled a desire to attract a higher education campus following the departure of DeVry University in 2015. Edina Public Schools along with Minnesota State University Mankato and other area higher ed campuses offer an opportunity for community stakeholders to collaborate.

Now that we have identified those industries that play a notable role in the local Edina economy, we can next consider the dynamics of these industries. This is important as one characteristic of any successful industry cluster is a strong sense of dynamism.

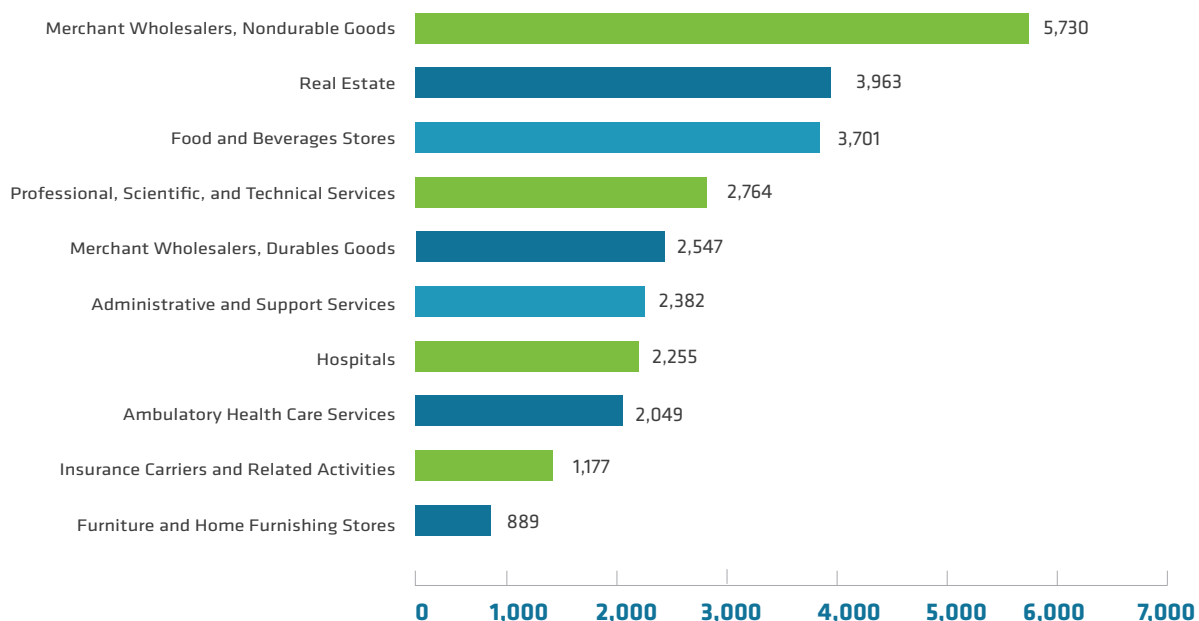
3.3 DYNAMICS AND SIGNIFICANCE OF THE MOST PROMINENT INDUSTRIES

Each of the main industries has a varying level of prominence in the Twin Cities regional economy. They also have exhibited a number of interesting and disparate dynamics over the past several years. Some, such as the financial services industry have experienced significant employment losses in the past decade and therefore may represent legacy industries in the community. Others, such as the healthcare science and services cluster have experienced significant development and growth.

We will consider three notable metrics and trends in this section, beginning with industry employment, moving to employment growth trends, and concluding with revenue estimates. We see that several industries rise to prominence beyond their base location quotients through these dynamics.

We will begin with a consideration of current employment levels. The 2014 annual average employment levels for each of the most prominent industry clusters is presented in Figure 9.

Figure 9: Employment Levels of Edina's Most Prominent Industries

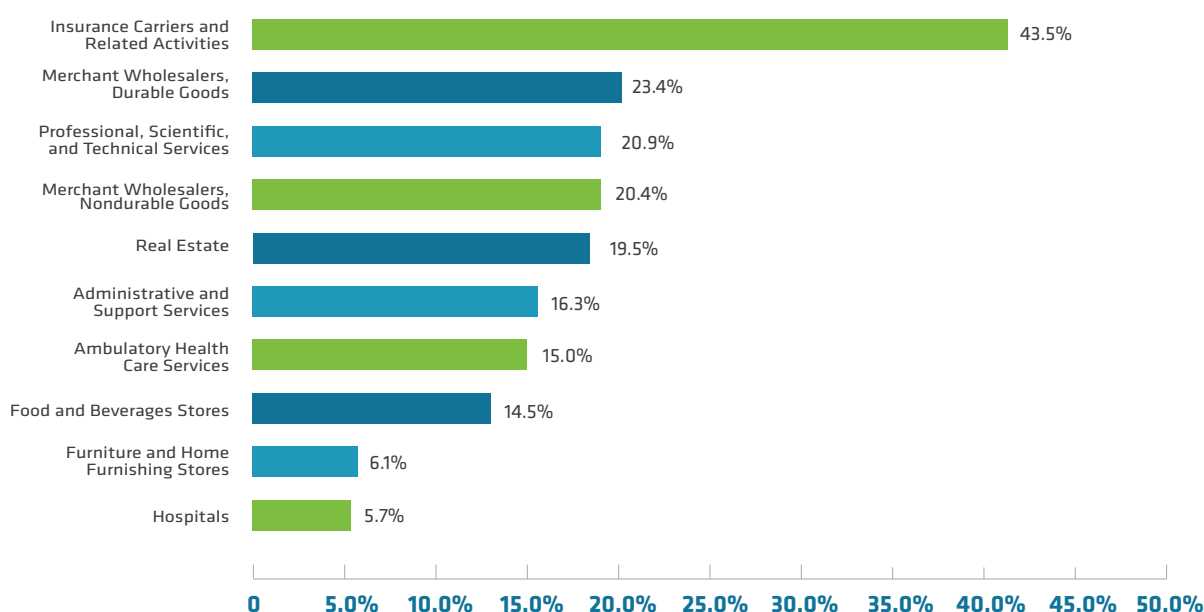


Source: Dun and Bradstreet, Infogroup

We first see that the two largest industries – nondurable goods wholesalers and real estate also have the highest levels of employment (5,730 employees and 3,963 employees respectively). Beyond this, however, there are a number of notable differences. The third most prominent industry as measured by location quotient – Furniture and Home Furnishing Stores reports the lowest average annual employment of any of the industries here. This suggests that total employment in this industry throughout the Twin Cities region is relatively low. Finally, we see that the healthcare science and services industry accounts for more than 4,300 employees, once again demonstrating its local importance. The somewhat lower location quotients also suggest that this industry is important throughout the Twin Cities.

Next, we can consider the dynamics of employment growth in these same industries as a means of determining which are emerging and which may be declining. Employment growth from 2009 to 2014 is presented in Figure 10.

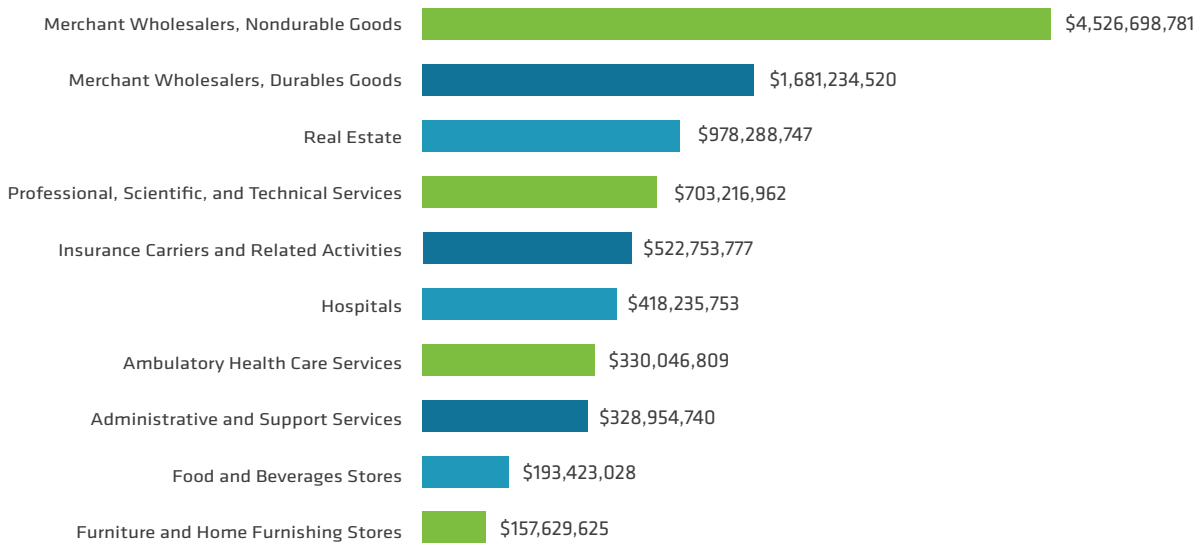
Figure 10: 2009-2014 Employment Growth in Edina's Most Prominent Industries



Source: Dun and Bradstreet, Infogroup

We again see another disparate result when examining industry growth trends. Employment among firms in the insurance carriers and related industries grew by an average of 43.5 percent. This resulted in an increase of 511 employees as a number of new firms opened locations in Edina. Conversely, average employment in one of the region's most established industry sectors in its hospitals increased by only 5.7 percent, or 128 employees. This growth was joined by a more than 300 person increase in the Ambulatory Health Care Services industry, further cementing the importance of this industry.

A final trend that bears note is the average annual revenue of these prominent industries. This data is presented in Figure 11.

Figure 11: Average Annual Revenue of Edina's Most Prominent Industries

Source: Dun and Bradstreet, Infogroup

The first, and most important note here is how significantly larger the average revenue of the nondurable goods wholesaler industry is than any of the other prominent sectors. This is nearly wholly influenced by one firm – Spartan Nash – that reported nearly \$4.5 billion in revenue in 2014. This accounts for nearly all revenue (and employment) in this industry. This firm was included in the analysis where others were excluded due to its significant and historical presence in the community.

High levels of revenue are similarly observed throughout the other prominent industries. It is important to note that revenue in the healthcare sciences and services industry are underreported as most institutions are not-for-profit. A closely-related firm in the durable goods wholesale merchant industry – United Hospital Services, Inc. reported more than \$1.4 billion in revenue in 2014 and is both locally and nationally prominent.

In sum, we see that each of the prominent industries are substantially large and dynamic. It is also important to note that many of these sectors are aligned with a stated growth objective that has been identified in the recent community focus groups. This points to a clear alignment between the outcomes of this industries analysis and the developing economic development strategy.

We will next consider a final important characteristic of the most prominent industries by estimating their economic impact. This will enable us to begin to consider the scope of these industries in terms of defining the industry clusters in which they have agglomerated.

4.0 ECONOMIC IMPACT OF PROMINENT LOCAL INDUSTRIES

A final defining characteristic of industries beyond their local importance is that they have a notable economic impact beyond their principal activities. This expands the presence of these industries beyond the boundaries of their firms and communities and into the broader region. Measuring the economic impact of each of the prominent industries identified in the preceding analysis will also provide some context into the development potential of each.

Economic developers typically turn to the estimation of economic multipliers in order to measure the economic impact of any industry. An economic multiplier is a measure of the additional economic activity that is created either directly or indirectly by the activity within a given industry. For example, a multiplier of 1.5 assumes that 50 percent additional activity is generated for all activity within a principal industry.

A series of economic impact multipliers were estimated for the Edina community economy for this purpose. A baseline series of multipliers were obtained from the United States Bureau of Economic Analysis through the Regional Input-Output Multiplier Series (RIMS II). These multipliers were adjusted to account for community context by inflating those multipliers for industries with particular local importance while deflating those multipliers with little local presence.

The multipliers for each of these industry clusters along with the total economic impact of employment and revenue are included in Figure 12.

Figure 12: Estimated Economic Impact of Edina's Most Prominent Industries

Industry	2014 Employees	2014 Revenue/Year	Economic Multiplier	Employment Effects	Revenue Effects
Merchant Wholesalers, Nondurable Goods	5,730	\$4,526,698,781	1.33	1,874	\$1,480,094,451.64
Real Estate	3,963	\$978,288,747	1.14	562	\$138,671,857.32
Furniture and Home Furnishings Stores	889	\$193,423,028	1.43	380	\$82,777,503.99
Food and Beverage Stores	3,701	\$703,216,962	1.44	1,631	\$309,986,060.28
Merchant Wholesalers, Durable Goods	2,547	\$1,681,234,520	1.33	833	\$549,713,158.61
Hospitals	2,255	\$328,954,740	1.40	893	\$130,301,937.92
Ambulatory Health Care Services	2,049	\$418,235,753	1.38	778	\$158,817,353.38
Administrative and Support Services	2,382	\$330,046,809	1.40	952	\$131,927,823.86
Professional, Scientific, and Technical Services	2,764	\$522,753,777	1.26	711	\$134,543,203.09
Insurance Carriers and Related Activities	1,177	\$157,629,625	1.70	823	\$110,166,783.77
Total	27,457	9,840,482,742	None	9,437	\$3,227,000,134

Source: Dun and Bradstreet, Infogroup, U.S. Bureau of Economic Analysis

Taken as a whole, the prominent industries presented here generate 9,437 additional positions and more than \$3.2 billion in added revenue throughout the Twin Cities region and nationally. If we exclude the impact of the nondurable goods wholesale merchant industry, the added revenue still exceeds \$1.7 billion. This suggests that the sum of the impact of these prominent industries is quite sizable.

Another important point to note is that not every economic multiplier shares the same impact. For example, the multipliers for the Real Estate and Professional, Scientific, and Technical Services industries are relatively low, where the multiplier for the Insurance Carrier and Related Activities industry is significantly higher.

This disparity reflects the difference in the business patterns of these industries and the extent to which employment and revenue from these activities extend throughout the region. Real estate services are typically restricted to a single or handful of related firms whereas insurance carriers provide services to a number of customers.

This points to an important observation regarding the nature of Edina's prominent industry. One industry, the wholesale and retail trade has impacts that extend far beyond the local region. However, other industries, such as educational services and healthcare sciences and services are more local in character. As such, the growth in these industries may be more dependent on local activity than others. This is important to consider with respect to how these industries align in clusters fit within the context of the economic development strategy that is currently in development.

4.1 TAX IMPACTS OF PROMINENT INDUSTRIES

There is one final item which bears mention with respect to the local industries identified throughout this analysis. There has been extensive discussion among community stakeholders regarding the potential tax impact of the local industries. We can make some general inferences with respect to scope and scale by revisiting the economic impact estimates provided earlier.

Figure 14 depicts the balance of fiscal recipients and contributors in the Twin Cities, per data provided by the Metropolitan Council. We see that Edina is a net contributor to the metropolitan tax base, meaning that the Edina tax base supports several neighboring communities.



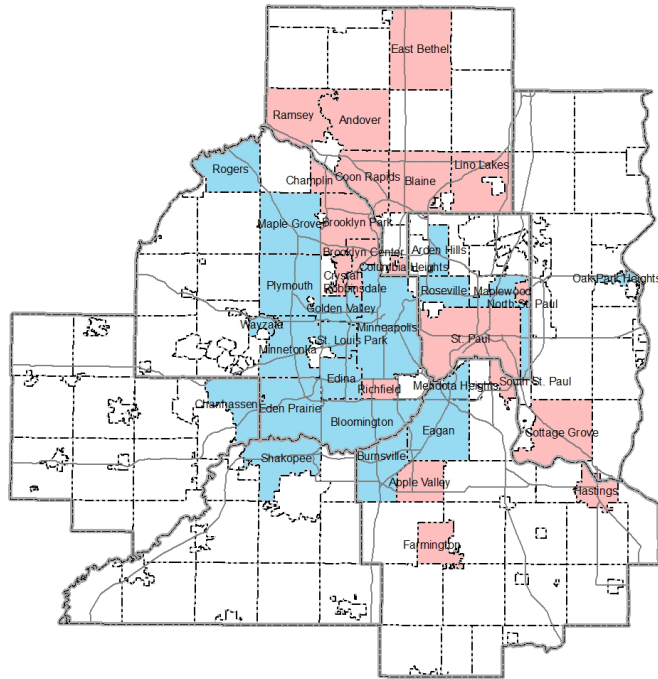
Figure 14: Fiscal Disparities in the Twin Cities Metro Area

FISCAL DISPARITIES PROGRAM IN THE TWIN CITIES METRO AREA TOP 20 NET RECIPIENTS AND TOP 20 NET CONTRIBUTORS

Taxes Payable 2015

Net Recipients Net Contributors

Andover	Arden Hills
Apple Valley	Bloomington
Blaine	Burnsville
Brooklyn Center	Chanhassen
Brooklyn Park	Eagan
Champlin	Eden Prairie
Columbia Heights	Edina
Coon Rapids	Golden Valley
Cottage Grove	Maple Grove
Crystal	Maplewood
East Bethel	Mendota Heights
Farmington	Minneapolis
Hastings	Minnetonka
Lino Lakes	Oak Park Heights
North St. Paul	Plymouth
Ramsey	Rogers
Richfield	Roseville
Robbinsdale	Shakopee
South St. Paul	St. Louis Park
St. Paul	Wayzata



Source: Metropolitan Council

To get a general sense of this effect, we can apply the region's combined tax rates to the estimated base and secondary revenue. Using this basic data, we see that the main local industries combine for an estimated tax contribution of \$115 million annually. While it is difficult to estimate how much of the community's tax base is covered by this estimate, we know that the local industries provide a sizable tax impact.

5.0 THE CASE FOR CLUSTER ANALYSIS

Cluster analysis is one of the most prominent means of economic analysis conducted at the local and regional level in the United States. The concept of an industry cluster is commonly utilized in a number of settings, whether discussing a specific region of the country such as Silicon Valley or North Carolina's Research Triangle, or referring to a specific industry, such as the automotive industry. While the use of the term is fairly ubiquitous, it is important to have a basic understanding of the concept and its importance.

Industry clusters are the key organizational unit for understanding and improving the performance of any local or regional economy. The foundation of a local economy is a group of clusters, not a collection of unrelated firms. For example, Edina is recognized for having both a vibrant retail and medical cluster. Firms cluster together within a region because each firm benefits from being located near other similar or related firms. The firms in a cluster have common competitive strengths and needs.

We can think of the importance of co-location from the perspective of firms that are heavily dependent on proximity to a common resource. The paper industry is an ideal example, as this sector historically developed around two principal resources – wood and water. For example, the river valleys of Northern Wisconsin are filled with paper mills to take advantage of these common inputs. As multiple firms begin to aggregate, they take advantage of other common resources, such as shared labor pools, common customers, or shipping providers. This further cements the identity of the industry cluster in the particular region.

Industry cluster thinking matters within the context of a comprehensive economic development strategy because it orients economic development policy and practice toward groups of firms and away from individual firms. It is more important and fruitful to work with groups of firms on common problems (such as training or industrial modernization) than to work with individual firms. This is also true of business attraction strategies as economic development professionals can focus their energies on targets that can most effectively utilize other existing local firms.

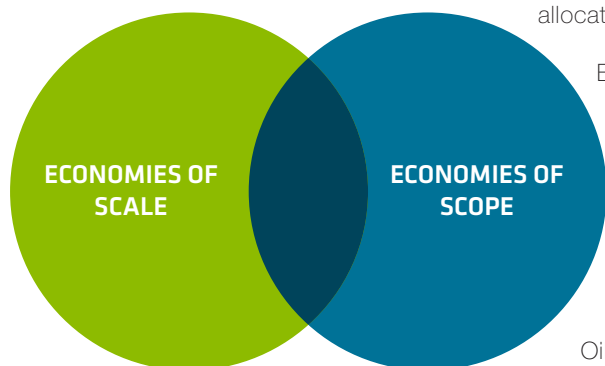
5.1 HOW WE DEFINE INDUSTRY CLUSTERS

In order to fully understand the benefits of conducting an industry cluster analysis of Edina's community economy, we must first gain a better understanding how clusters are defined. There has been an extensive literature written over the past thirty years regarding the nature and importance of industry clusters. Several common themes have emerged which are germane to the current analysis.

The principle of industry clustering is based on the economic concept of agglomeration effects. Agglomeration effects represent the most efficient distribution of resources across multiple firms or organizations. The effect of doing so generates significant economic benefit to all participating organizations and may create spillover benefits within the larger region.

AGGLOMERATION EFFECTS

Agglomeration effects are generally divided into two different categories – economies of scale and economies of scope. Each represents a different model of efficient resource allocation and can be observed in a number of regional contexts.



Economies of scale effects are most commonly associated with a related economic concept of vertical integration that is familiar to anyone who learned about the industrial trusts of the late Nineteenth Century. In a vertically-integrated process, one or a group of firms or organizations controls all aspects of the production of a good or service within a defined market or supply chain. In doing so, the controlling firms eliminate duplication of production and can therefore produce more of an end product than could be produced if each firm acted on its own. Large firms such as Standard Oil and U.S. Steel took this concept to its natural conclusion in practices that are now considered illegal.

Economies of scale are both complemented and contrasted by a second agglomeration effect, economies of scope. This is most commonly associated with horizontal integration and can also be connected to monopolies. In order to generate scope economies, a number of organizations or firms that offer different, but related products or services decide to collaborate to serve a common customer base. By specializing, these partner firms can concentrate on what they do best while ensuring their customers receive a comprehensive suite of services.

An example of scope economies can be observed by walking into an automobile dealership. A typical dealership sells and leases new and used vehicles, arranges financing for these vehicles, and also offers maintenance and repair services.

Industry clusters have been defined in a number of ways in relation to these agglomeration effects. The preeminent scholar in cluster economics, Harvard University's Dr. Michael Porter (1998) views industry clusters as including:

- **Linked industries and other entities, such as suppliers of specialized inputs, machinery, services, and specialized infrastructure.**
- **Distribution channels and customers, manufacturers of complementary products, and companies related by skills, technologies, or common inputs.**
- **Related institutions such as research organizations, universities, standard-setting organizations, training entities, and others.**

Further, the relationship between firms can be defined within a number of different scopes, including industry, market, supply chain, or geography. Most industry sectors have historically been defined by more than one of these factors, though the globalization of industry has expanded our understanding of industry clusters by removing the physical limitations of many of these definitions.

For the sake of the current analysis, we will focus on defining clusters among businesses that are geographically co-located, specifically within the city of Edina. The industry clusters that will be discussed in the next section likely extend well into the region but may be concentrated within the community. Similarly, other industries that may not have a significant presence in Edina may be part of a larger regional cluster. The industry clusters that are most concentrated in the community may not depend on the co-location for access to common resources, but are dependent on the region for access to customers and markets.



5.2 THE KEY LESSONS FOR INDUSTRY CLUSTER THINKING

Industry cluster thinking offers important lessons for economic development policy and practice. It teaches policymakers and practitioners to:

- Build on the unique strengths of their regions rather than try to be like other regions. Different regions have different sets of economic development opportunities. Not every place can or should become another Silicon Valley.
- Go beyond analysis and engage in dialogue with industry cluster members. Many policymakers and practitioners treat research on and analysis of clusters as the only elements of a cluster strategy. In fact, they are only a starting point for an industry cluster strategy. Identifying a cluster's competitive strengths and needs requires an ongoing dialogue with the firms and other economic actors in the cluster. Although the public sector cannot be the exclusive driver of cluster policy, it can play a central role in convening cluster members and working with private-sector cluster organizations.
- Develop different strategies for different clusters. Clusters vary from industry to industry and from place to place and operate in many different dimensions. Different clusters have different needs. There is no one set of policies that will make all clusters successful. For example, a technology cluster may require help with research or capital, while a metals industry cluster may require assistance with job training or technology deployment.
- Foster an environment that helps new clusters emerge rather than creating a specific cluster from scratch. It is difficult for public policy to create new clusters deliberately. Instead, policymakers and practitioners should promote and maintain the economic conditions that enable new clusters to emerge. Such an environment might, for example, support knowledge creation, entrepreneurship, new firm formation, and the availability of capital. Cluster policy is not about "picking winners" or excluding industries.

The value of cluster analysis and development is of particular importance to Edina's community leaders given the potential of the redevelopment opportunities available. Each of the key lessons suggested here will assist the community in utilizing the analysis in maximizing the value of each of its principal clusters. We will consider each of these clusters in the next section.



6.0 EDINA'S PROMINENT INDUSTRY CLUSTERS

We have identified several of the most prominent industry sectors in the Edina local economy and discussed their impacts within the context of employment and revenue generation. We can now turn our attention to a discussion of how these industry sectors relate as clusters. These clusters have the potential to generate significant additional growth and enhance the community's regional influence.

Figure 13: Characteristics of Prominent Industry Clusters

Industry Cluster	2014 Employment	2014 Revenue
Traded Goods	14,350	\$7,456,489,792
Health Care Science and Services	4,304	\$747,190,493
Personal and Financial Services	5,140	\$1,501,042,524
Telecommunications and Information Technology*	696	\$186,443,977
Educational and Innovation Services*	1,116	N/A

Source: Dun and Bradstreet, Infogroup

It is important to first note that the two asterisked clusters – Telecommunications and Information Technology and Educational and Innovation Services represent estimated employment and revenue. The telecommunications and information technology cluster excludes Century Link Communications as its national employment and revenue are reported to its Edina headquarters. Similarly, no revenue estimates are available for the educational services and innovation cluster as most of its employment is represented by Edina Public Schools, a not-for-profit institution. We know that the availability of a high-quality education has a significant economic and reputational impact on the community regardless of our inability to estimate this numerically.

The clusters combine to account for more than 25,500 regional employees and nearly \$10 billion in regional revenue. The estimated employment within the five clusters exceeds the specific employment reported in Edina and includes employees throughout the Twin Cities region. This inclusion is intentional as the relocation of these employees to facilities in Edina may prove to be a successful economic development strategy.

It is somewhat difficult to place the employment and revenue size of each of the industry clusters in comparative context due to the availability of data on comparable regions. The employment and revenue levels reported within the five local clusters represent a large concentration of activity in a community the size of Edina. As such, this confirms the central argument of this analysis, namely that the importance of the Edina economy is that it supports a large share of the southeastern Twin Cities region.

6.1 FURTHER DEVELOPING EDINA'S INDUSTRY CLUSTERS

A common final step in any industry cluster analysis is to consider what, if any future cluster development could occur within a region. Discussions of this nature tend to immediately focus on the emergence of new clusters, rather than considerations of existing strengths. This is a far more difficult task as data may not support such speculation and little information may be known regarding future industry trends.

There are several potential refinements that exist within the three initial cluster areas identified in the Edina local economy. The analysis and focus group discussion have focused on three areas – the development of a sophisticated retail goods sector, the establishment of Edina as a regional medical care leader and the emergence of a bioscience technology cluster that connections health care and higher education. Each of these clusters has significant growth potential.

Health Care Services and Sciences Cluster

- The reputation of Southdale Memorial Hospital and several local healthcare practitioners should be leveraged to market the community as a health care destination.
- A potential model exists in the positioning of Rochester and the Mayo Clinic.
- The cluster could also serve as a vital resource to connect to new techniques or technologies.
- Additional development, such as additional outpatient, specialized, or laboratory services could occur in Pentagon Park and elsewhere.

Traded Goods Cluster

- Cluster development can occur in both wholesale trade (distribution and business-to-business sales) and retail trade sectors.
- Development already occurring in the Southdale corridor could transition and link to proposed developments in Pentagon Park.
- Edina can be a destination for domestic and other international design firms establishing locations in the Twin Cities.
- Further retail development potential exists in other neighborhood nodes providing additional dining and personal services offerings. An example is ongoing development at 50th and France.
- The cluster has the potential to both drive additional high-end customers and spending to the Southdale area as well as link firms in the professional and financial services cluster to their retail partners.

Bioscience Technology Cluster

- There has been considerable discussion regarding the development of an advanced bioscience cluster in the Pentagon Park area or elsewhere in the community.
- This cluster would primarily capitalize on the presence of Southdale Memorial Hospital and medical practices.
- Other cluster inputs would be required to maximize the potential of this future cluster, including a strong postsecondary research partner such as the University of Minnesota – Twin Cities, and other technology partners.
- The presence of several telecommunications and software development firms in Edina points to the possibility of future growth in bioinformatics and smart monitoring technologies, such as wearable or implanted devices.
- Partnerships could be formed with local innovative firms in these fields, including Evergreen Life Science, Medtronic and NorTech Life Sciences, among others.



7.0 CONCLUSION

The importance of industry clusters in the economic development of any region is measured both in terms of their size as well as the influence they exert within a broader context. The Edina local economy provides a fertile ground both for the growth of several existing clusters as well as the development of additional future clusters due to the outsize influence that it plays within its local region. These clusters can play a critical role in supporting both the employment of the community's and region's residents and the local and regional tax base. The revenue generated by one cluster may support others as the payroll of one industry supports spending in others.

The initial five existing industry clusters identified in this analysis – educational and innovation services, financial and personal services, health care sciences and services, telecommunications and information technology, and traded goods all play a prominent role in defining the economic character of Edina and the Twin Cities. However, a local Edina economic development strategy needs to consider several potential enhancements, including:

- **The growth of several of the prominent industry clusters, including traded goods and health care sciences and services are driven largely by local spending behavior, and drawing from a regional catchment. An increase in the community's visibility through strong leadership could expand this scope.**
- **The promotion of any future industry cluster depends on the engagement of partners in education, government and industry. The Edina Chamber of Commerce can play a vital role in this development by coordinating partnerships.**
- **The Pentagon Park development represents the strongest opportunity to expand an already prominent industry cluster such as health care sciences and services, or see the formation of a potential new industry cluster, such as bioscience technology.**
- **An industry cluster approach can serve to connect community assets by fostering a strong entrepreneurial base to support the emerging clusters and to build greater connectivity among firms within and across clusters.**

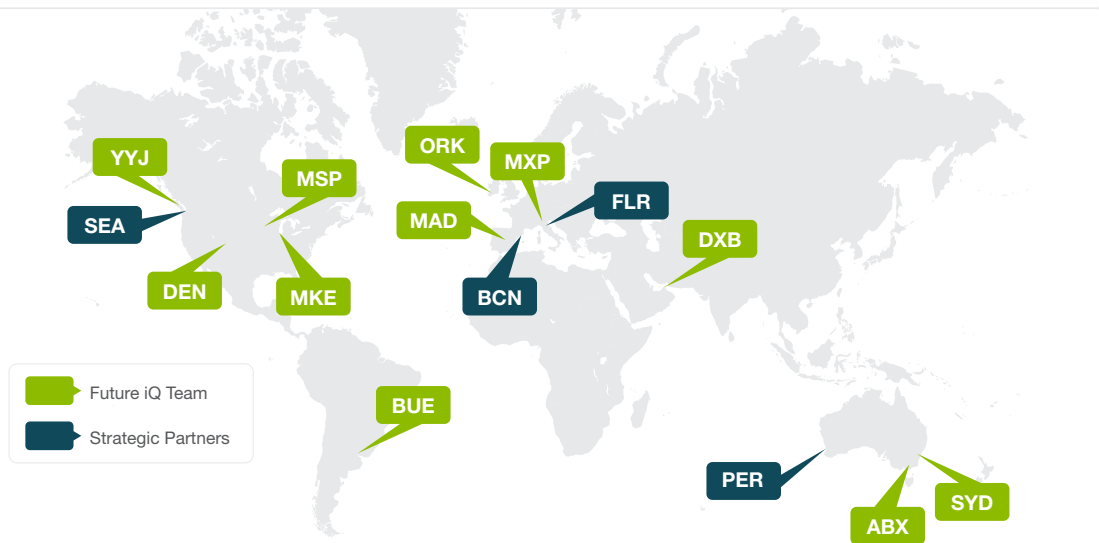
The driving principle of cluster development is collaboration. The level of collaboration needed to support the further development of Edina's industry clusters will depend heavily on the engagement of an array of partners in the public and private sectors.

8.0 ABOUT FUTURE IQ

Future iQ is a market leader in the development and application of scenario planning; network analysis, industry and regional analysis, and community engagement and capacity building. We specialize in applying innovative tools and approaches to assist organizations, regions and industries shape their economic and community futures. We take a practical, hands-on approach to working with groups and communities. With over a decade of business experience, the company has grown to have a global clientele spanning three continents.

To learn more about Future iQ, and our recent projects visit www.future-iq.com or by email at info@future-iq.com

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9.0 REFERENCES

The data used in this analysis was compiled from three principal sources:

- Dun and Bradstreet <http://www.dnb.com/>
- Infogroup <http://www.infogroup.com/>
- United States Census Longitudinal Employer-Household Dynamics <http://lehd.ces.census.gov/>

The Harvard Business School's Institute for Strategy and Competitiveness has developed U.S. Cluster Mapping to present more information regarding industry clusters and cluster methodology. <http://www.clustermapping.us/>

10.0 MORE INFORMATION

FOR MORE INFORMATION ON THE INDUSTRY CLUSTER STUDY, AND THE EDINA CHAMBER OF COMMERCE ECONOMIC DEVELOPMENT STRATEGY, PLEASE CONTACT:

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