

2006/2007 Twin Cities Greater Metropolitan Workforce Regional Assessment for a Competitive Economy Report

Workforce RACE Report

Acknowledgements

This report was commissioned by the Twin Cities Greater Metropolitan Workforce Council (GMWC) – a body that provides oversight and direction to publicly-funded workforce development services in the Twin Cities region. The GMWC includes the Chief Elected Officials of the City of Minneapolis and 11 counties of the metropolitan region; the business leaders who serve as Chairs of each of the seven Local Workforce Investment Boards in the region; and staff leaders responsible for implementing publicly-funded workforce programs throughout the region. Tom Bodin, Chair of the Hennepin-Carver Workforce Investment Board also serves as Chair of the GMWC and was a key driver in moving this report to production.

The Employer Services Partnership (ESP) – an alliance of metropolitan workforce development and higher education leaders – functions as an “operating arm” of the GMWC. With representation from metropolitan Local Workforce Investment Boards, the Metropolitan Customized Training Consortium (from the MN State Colleges and Universities System), the University of Minnesota, and the region’s Adult Basic Education service providers and policymakers, the ESP coordinates joint training and education efforts that serve metro-wide employers and/or industries. Members of the ESP Steering Committee were instrumental in shaping the Workforce RACE Report and the accompanying “Cordially Invited” Summary and Action Agenda.

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I. Methodology and Definitions

This report provides an overview of the current state of the Twin Cities workforce and an assessment of the challenges facing workers and employers in a rapidly changing global economy. In commissioning the report in early 2006, the GMWC asked MN Dept of Employment and Economic Development staff to:

- Identify the geographic characteristics of employment and industry mix and the demographic characteristics of the labor force in the Twin Cities metropolitan area;
- Evaluate the regional and global competitiveness of the Twin Cities economy against other metropolitan areas;
- Assess current, short- and long-term occupational demand in the Twin Cities and their impact on area employment patterns and potential gaps;
- Analyze unemployment and job growth, in light of demographic expectations and the future realities of an aging population and labor force;
- Develop a beginning list of significant implications requiring action by regional stakeholders.

Through additional discussion among stakeholders, a list of workforce implications and strategies for the region was identified and an action agenda was developed. It is the intention of the GMWC to gather and analyze data such as this on a biennial basis; and to create an annual action agenda for which the GMWC is accountable for some portions; and engages other stakeholders in advancing economic growth strategies for the Twin Cities region.

Data included in this report is based on the following geographies:

- As used in this report, the “Twin Cities Greater Metropolitan Area” refers to the Minneapolis-Saint Paul, MN-WI Metropolitan Statistical Area (MSA) which includes Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright counties in Minnesota and Pierce and St. Croix counties in Wisconsin.
- The “Twin Cities Planning Region” and “Economic Development Region 11” include seven counties—Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. This region is referred to as the “Twin Cities region” in this report.

I. Is It Really A Race?

This report could be called a “regional scan” or a “state of the workforce report” – for it is indeed each of these. However, the GMWC did not want to produce a static report – but rather an actionable vision that could help individuals and businesses in the metropolitan area mutually benefit and prosper. In gathering and analyzing the data, it became clear that there is urgency to our task. Individuals and businesses are racing for their own prosperity and, sadly in many cases, their own survival. And, as a region, we are competing nationally and internationally for high-growth, high-wage jobs, sustainable industries, and to maintain and further the high quality of life we have come to expect in the Twin Cities. Our challenge is to identify our competitors and understand our competitive advantage relative to each challenger in multiple venues. Like the Olympics or a multi-staged triathlon, we need to be competitive in each individual contest; and, ensure that we can remain competitive over time.

If we truly understand this to be a race, the immediate question that comes to mind is: How will we win? The simplistic answer is that we will win by being better, faster, smarter and more effective than our competition. However, we have multiple competitors in many individual contests and in each our solution may depend on speed, quality, preparation, endurance, or some other factor. A strategy is needed for us to win where we can based on sheer size or strength, advance in places we are weak, and find the “hidden strengths” of our regional economy. The Workforce RACE Report provides the factual foundation for that strategy as a two-year snapshot of our regional economy. The “Cordially Invited” Action Agenda serves as an annual action plan that, with the participation of many other stakeholders, will help us compete and win.

II. Understanding the Scoreboard: Major Economic Indicators

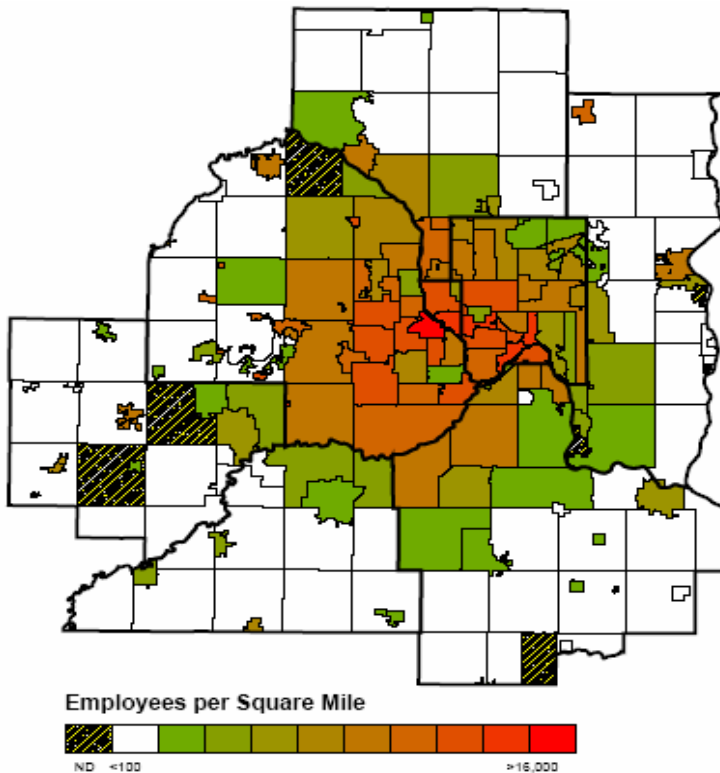
A scan of seven significant indicators helps to establish the economic environment of the Twin Cities in early 2006. Following are data points on key sectors; distinguishing industries; unemployment; wages; and entrepreneurship. Following that is additional data on the Twin Cities’ competitiveness as a region relative to other US metropolitan areas and internationally. These data help us understand the course, the track, the

conditions on the field – whatever metaphor is meaningful to you – to establish the environment in which we are racing. The major economic indicators are also, for better or for worse, strong examples of how we keep score.

A. Sector Size and Density The Twin Cities region is home to about 83,400 private sector firms with 1,397,000 jobs. This is about 62% total jobs in Minnesota. The region’s greatest employment concentrations—jobs per square mile—are found in the core cities of Minneapolis and Saint Paul, and the southern and western suburbs. (See Figure 1.)

The largest sectors of economic activity are manufacturing, healthcare and social assistance, and retail trade. The manufacturing sector accounts for 13.3% of all jobs and 16.2% of payroll wages; healthcare and social assistance, 12.5% of jobs and 10.6% of payroll wages. Retail trade accounts for 12.2% of all jobs, but only 6.6% of payroll wages.

Figure 1. Private Sector Employment Density in the Twin Cities Region, 1Q, 2005



Source: DEED, Quarterly Census of Employment and Wages (QCEW).

B. Growing and Shrinking Industries Private sector employment in the Twin Cities region increased generally by 2.2% between 2003 and 2005 as the region continues to recover from the 2001 recession. However, some sectors experienced higher than average growth rates including: hospital and ambulatory health care services at 5.5% and manufacturing associated with medical equipment and surgical supplies (labeled as miscellaneous manufacturing) at 12.3%. Sectors with higher than average growth often correlate with shortages in specific occupational specialties. For a full listing, see Table 1 below.

Table 1. Private Sector Industries with Greatest Recent Growth in the Twin Cities Region

Industry Categories (per federal codes)	Average employment, 2005	Average employment, 2003	Numeric Change, 2003 to 2005	Percent growth, 2003 to 2005	Average annual wage, 2005
Food Services and Drinking Places (722)	107,297	101,478	5,819	5.7%	\$13,676
Social Assistance (includes rehab and counseling) (624)	35,951	31,854	4,097	12.9%	\$21,580
Administrative and Support Services (561)	87,730	83,802	3,928	4.7%	\$28,236
Ambulatory Health Care Services (621)	57,451	54,444	3,007	5.5%	\$56,316
Management of Companies and Enterprises (551)	56,228	53,674	2,554	4.8%	\$96,460
Specialty Trade Contractors (238)	51,602	49,461	2,141	4.3%	\$48,776
Miscellaneous Manufacturing (339)	16,842	14,995	1,847	12.3%	\$58,864
Educational Services (611)	24,399	22,593	1,806	8.0%	\$33,644
Publishing Industries (511)	19,060	17,393	1,667	9.6%	\$65,832
Computer and Electronic Product Manufacturing (334)	38,729	37,312	1,417	3.8%	\$69,836
Clothing and Clothing Accessories Stores (448)	15,372	14,064	1,308	9.3%	\$16,328
General Merchandise Stores (452)	35,208	34,076	1,132	3.3%	\$20,800
Construction of Buildings (236)	18,012	16,906	1,106	6.5%	\$57,928
Professional and Technical Services (541)	95,048	94,040	1,008	1.1%	\$68,640
Credit Intermediation and Related Activity (includes commercial banking) (522)	40,012	39,139	873	2.2%	\$57,512
Total, All Industries, Private Sector	1,397,148	1,367,272	29,876	2.2%	\$46,852

Source: DEED, Quarterly Census of Employment and Wages (QCEW).

Numerous industries are still feeling the effects of the 2001 recession and have continued to lose employment recently. Some industries are shrinking due to changing demands of the market, industry consolidation, restructuring, business closure or relocation out of the area. The food manufacturing, machinery manufacturing, and insurance carriers and related activities sectors have shown decreases in employment since 2003. Overall job loss in manufacturing industries has stabilized over the past two years with total private sector employment losing just 1,290 jobs in the Twin Cities region. This is a dramatic improvement over the 2001 to 2003 time period when 19,120 manufacturing jobs were shed from the regional economy.

C. Distinguishing Industries “Distinguishing industries” are defined as industries that can disproportionately shape the character of a regional economy. Distinguishing industries can be identified by calculating the region’s share of the national payroll in each industry—or location quotient (LQ). A few commonly used yardsticks are available to assess distinguishing industries including, average industry wages and recent industry growth. Location quotients also demonstrate industrial competitiveness over time. The change in LQ values over time is useful in comparing the relative position of regional industries to their national competitors.

Overall, the Twin Cities region represents approximately 1.5% of the nation’s covered employment and wages. A sorting of industry statistics reveals 23 “distinguishing industries” in which the region has a higher percentage of industry employment than the national employment distribution. In the Twin Cities region, management, printing, manufacturing, insurance carriers and other industries all appear to be high value-added industries with above-average wages (See Table 2).

As for growth, the LQ increased between 2001 and 2004 in seven of the Twin Cities region's distinguishing industries. These industries were more competitive than U.S. rivals because the share of the region's industry employment increased relative to U.S. counterparts. Eight industries experienced lower LQs; the share of the region's industry employment decreased in comparison with U.S. firms. For industries with an increasing LQ, six added employment faster than the U.S. rate (Table 2, +/+). Those industries were printing and related support activities, computer and electronic product manufacturing, miscellaneous manufacturing, publishing, personal and laundry services, and durable goods merchant wholesalers. The remaining industry—performing arts and spectator sports—with a higher LQ were coupled with employment loss (Table 2, +/-), this is an indication that jobs were being shed at a slower rate than the U.S. average.

Table 2. “Distinguishing Industries” in the Twin Cities Region

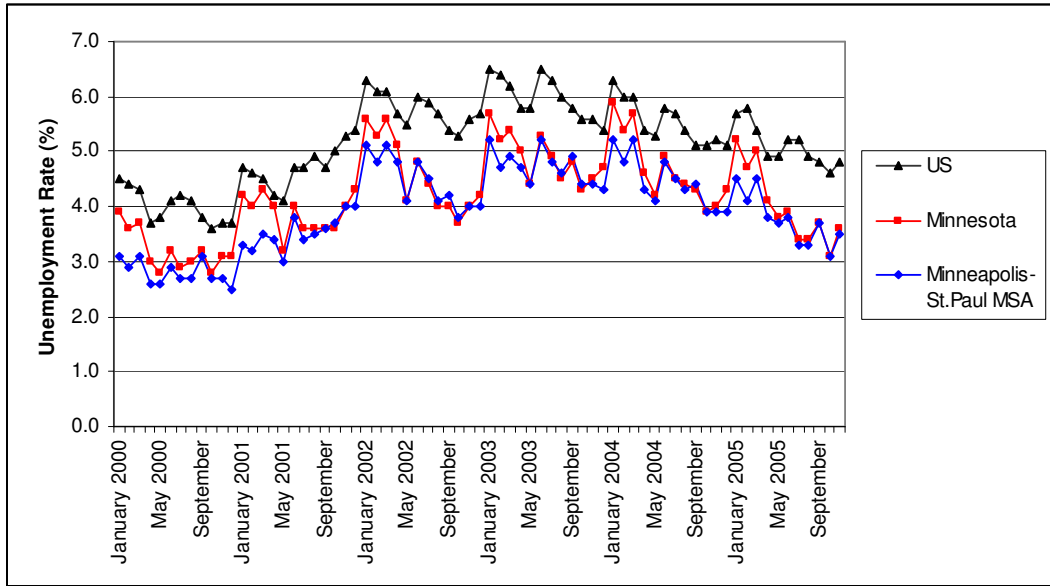
Industry (NAICS)	Average employment, 2005	Location Quotient 2004	Location Quotient	LQ Change / US Employment Change (2003 to 2005)	Average annual wage, 2005	Percent growth, 2003 to 2005
Management of Companies and Enterprises (551)	56,228	2.69	2.71	-/+	\$96,640	4.8%
Printing and Related Support Activities (323)	19,776	2.32	2.10	+/+	\$50,700	0.7%
Computer and Electronic Product Manufacturing (334)	38,729	2.26	1.85	+/+	\$69,836	3.8%
Miscellaneous Manufacturing (339)	16,842	1.91	1.65	+/+	\$58,864	12.3%
Insurance Carriers and Related Activities (524)	44,878	1.67	1.69	-/-	\$73,892	-3.0%
Publishing Industries (511)	19,060	1.62	1.53	+/+	\$65,832	9.6%
Electronic Markers and Agents/Brokers (425)	13,122	1.47	1.59	-/+	\$50,700	0.7%
Machinery Manufacturing (333)	20,116	1.46	1.50	-/-	\$61,672	-7.7%
Performing Arts and Spectator Sports (711)	6,501	1.36	1.23	+/-	\$63,596	-2.0%
Social Assistance (includes rehab and counseling) (624)	35,951	1.32	1.96	-/+	\$21,580	12.9%
Fabricated Metal Product Manufacturing (332)	25,001	1.30	1.36	-/+	\$50,908	1.0%
Transit and Ground Passenger Transport (485)	6,458	1.28	1.32	-/+	\$21,424	6.2%
Personal and Laundry Services (812)	20,267	1.25	1.23	+/+	\$24,492	2.7%
Merchant Wholesalers, Durable Goods (423)	45,978	1.23	1.21	+/+	\$61,724	1.2%
Nonstore Retailers (454)	6,939	1.20	1.35	-/+	\$44,148	3.6%
Total, All Industries, Private Sector	1,397,148				\$46,852	2.2%

Source: DEED, Quarterly Census of Employment and Wages (QCEW). Note: Of the 23 industries with a location quotient of 1.2 or higher in 2004, 15 have disclosable data and are presented here.

D. Unemployment The Twin Cities Greater Metropolitan Area monthly unemployment rate was at or below the state and nation's rates throughout 2005 ending the year at an average rate of 3.8% (see Figure 2). Overall, the number of people engaged in the labor force was higher in 2005 than in previous years. This is consistent with current conditions as individuals' re-enter the labor market after periods of economic downturn.

E. Wages and Compensation In general, Minnesota is a good place to work. Our median hourly pay, \$15.95, is the 10th highest in the nation and a full \$1.62 per hour, or 11% higher than the nation's overall median rate of \$14.33.¹ Minnesota's high wage rates exist, in part, because of our generally low unemployment rates, high educational attainment and the larger share of jobs in the skilled professional field. However, we also tend to earn more within occupations—the vast majority of occupational level wage rates exceed the national average. The Twin Cities greater metropolitan area has the highest median wage for all jobs at \$17.23 as compared to other metropolitan areas within the state and the 18th highest median wage of all metropolitan areas nationwide.

Figure 2. U.S., State and Minneapolis-St. Paul MSA Unemployment Rate,

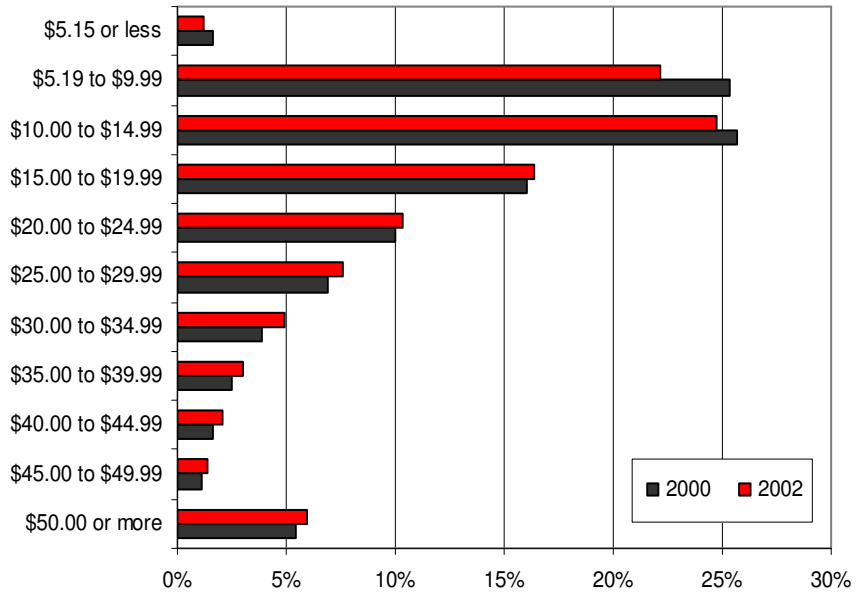


Source: DEED, Local Area Unemployment Statistics (LAUS) 2005.

Wage record analysis indicates that between 2000 and 2002, the number of workers in the Twin Cities earning less than \$10.00 an hour fell from 27% to 23%.² Workers making \$30.00 an hour or more increased during these two years from 15% in 2000 to 17% in 2002 while the percentage of individuals making \$10.00 to \$29.99 remained virtually unchanged (see Figure 3).

F. Entrepreneurship The role of entrepreneurship in economic growth is an important and often overlooked topic. Entrepreneurs start typically small firms which introduce new concepts and innovative ideas, products and services to the marketplace. If able to survive a few years, expansion by these firms can add significant numbers of jobs to the economy. Since 1989, firms with fewer than 20 employees saw the most net job growth and contributed the most to job growth in Minnesota.³ And the smallest firms are the

Figure 3. Hourly Wages Earned by Workers in the Twin Cities Region, 2000 and 2002



Source: DEED, Wage Record Analysis using Quarterly Census of Employment and Wage (QCEW) data. All industry data are included here

fasting growing in every industrial sector in the state. In fact, between 1999 and 2002, firms with fewer than 20 employees added more than 68,000 jobs to Minnesota's economy and the majority of this growth occurred in firms with fewer than five employees.⁴ Similarly in the Twin Cities Greater Metropolitan Area, the largest employment growth between 1999 and 2002 occurred in firms with fewer than 20 employees according to the U.S. Small Business Administration.⁵

Entrepreneurial activity continues to generate growth beyond the jobs created directly by new firms. It also impacts national, state and industry productivity or economic output. Growth in the sheer number of firms that exist increases competition, specialization and diversity further pushing economic growth as incumbent firms are forced to improve or lose. In 2004, the Twin Cities Greater Metropolitan Area ranked first nationally for large cities as the best place for entrepreneurs.⁶ Driving this top ranking was strong job growth for existing small businesses.

Hispanic entrepreneurship is also very strong in Minnesota. A recent report from the U.S. Census Bureau indicated that in 2002 Hispanics owned just under 4,000 businesses in Minnesota in 2002 generating \$463 million in sales. This represents a 10% growth over the number of Hispanic-owned businesses in 1997 and an 18% growth in sales.⁷

G. Competitiveness of the Twin Cities Economy The indicators reviewed above suggest that Minnesota is generally doing well and that the Twin Cities, by virtually all accounts, remains the engine of the Minnesota economy. It's important to also establish how the Twin Cities fares relative to other metropolitan areas nationally and internationally.

Economic performance of Minnesota as a state and sub-regions within the state may be measured through fairly traditional measures including: the value of the Gross State Product, the number of Fortune 500 business headquarters located here, the presence of higher education institutions and research facilities. (The Twin Cities ranked as the 18th best place for business in 2005 according to Forbes magazine and has 34 Fortune 500 company headquarters – a density surpassed by only seven other metro areas). Performance may also be measured according to newer indices like those in economist Richard Florida's "Rise of the Creative Class" which considers the concentration of creative people who live and work in the Twin Cities.

In terms of sheer population size, the Twin Cities Greater Metropolitan Area ranks 16th across all other metropolitan areas with over 3.1 million residents.⁸ The Twin Cities Greater Metropolitan Area ranks 7th nationwide among regions with a population over one million, and 10th among all regions⁹ using the "creative class" index. Economist Florida's definition puts approximately 36% of employment in the Twin Cities Greater Metropolitan Area in the "creative class" – creative professions such as: computer and mathematical; architecture and engineering; life, physical and social science; arts, design, entertainment, sports, and media; management; business and financial operations; legal; healthcare practitioners and technical; and high-end sales and sales management. The presence of creative people doing creative jobs leads in part to a competitive advantage when comparing regions of the country or world against each other. Creativity is ultimately an economic resource and may act as a magnet to draw individuals with similar occupations and talents to a region. And, creative talent along with technological innovation can spell success for a region. Between 2002 and 2012,

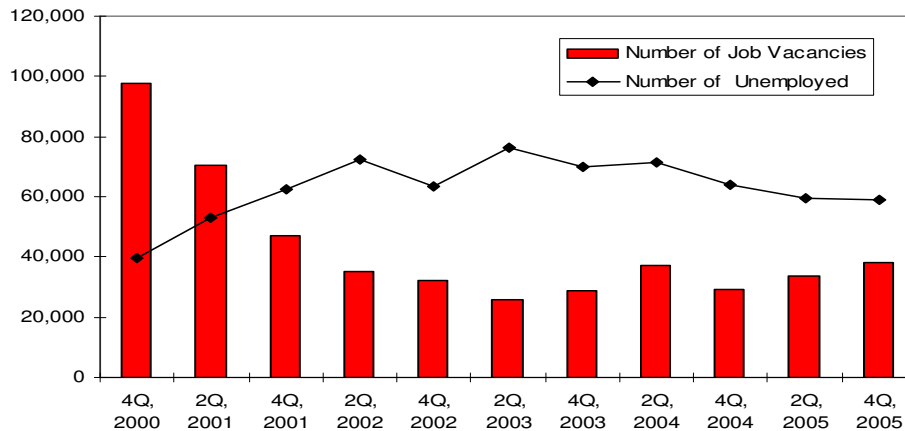
employment in these creative occupations is expected to grow by 20.6% or over 123,800 jobs in the Twin Cities seven-county metro region.

III. Defining Demand

A core component of any regional economic scan is to look closely at actual jobs/occupations in demand. This is the “demand” side of the supply-demand equilibrium that the labor market seeks. In our race, it is the demand side that is chasing us, compelling us to run, telling us how far to run and in what direction. In addition to the overall economic context, what data do we have about the job market as it looks to current job seekers? Twice each year, DEED surveys a representative sample of employers from 20 industry sectors. This survey assesses job market conditions through analysis of current hiring needs. From the responses collected in 4Q, 2005, there are an estimated 38,400 job openings in the Twin Cities region—or 2.5 openings for every 100 filled or existing jobs.

Job vacancies in the Twin Cities region are up by 30.6% over the year, but still remain considerably lower from their peak during 4Q, 2000 (see Figure 4). The number of unemployed workers in the Twin Cities region is also higher than it was in 4Q, 2000. These changes are consistent with the 2001 recession.

Figure 4. Comparison of Unemployment and Job Vacancies in the Twin Cities



Source: DEED, Local Area Unemployment Statistics (LAUS) and Minnesota Job Vacancy Survey.

“Market-clearing matches”— where employers and workers successfully find one another — keep both unemployment and job vacancy rates low in many fields, but not in all fields. Some segments of the market will have imbalances.

Survey data and administrative data maintained by DEED allow for the identification of fields with surpluses as well as fields with unmet demand. Insured unemployment (Unemployment Insurance weeks claimed) as a share of all jobs is a proxy for supply, or workforce availability. If there are many unemployed workers, this results in greater competition for employment. On the flip side, job vacancies as a share of all jobs is an indicator of job opportunity. If there are few opportunities in a given field, some jobseekers will be frustrated in finding employment or reemployment.¹⁰

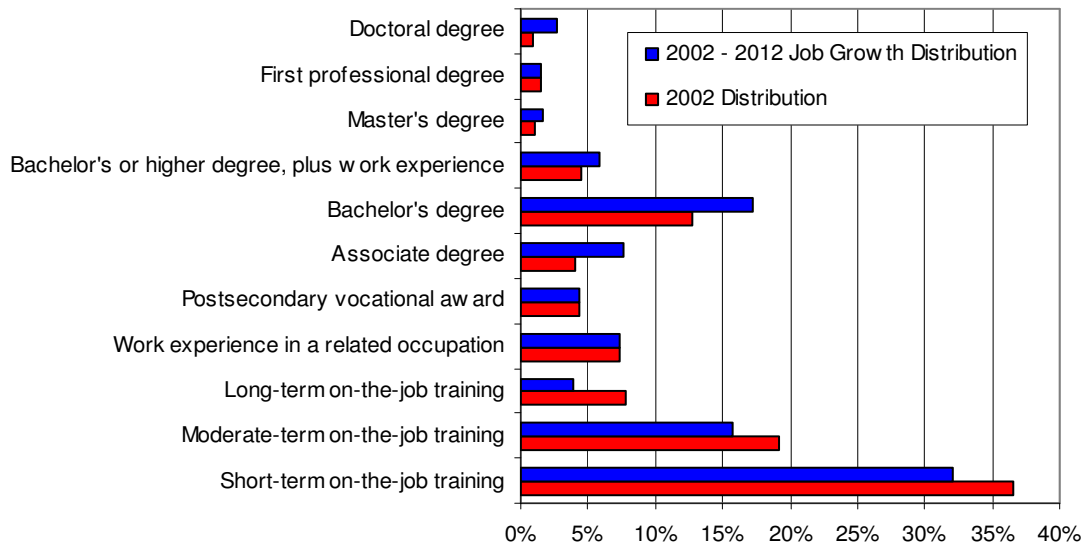
Insured unemployment rates exceed job vacancy rates by more than one percentage point in a few areas suggesting a difficult, competitive market for jobseekers in the Twin Cities region in occupational groups including: agricultural processing workers, secretaries and administrative assistants, woodworkers, and selected sales-related positions.

At the opposite end of the spectrum, eight fields have high levels of hiring demand, with job vacancy rates exceeding insured unemployment rates by more than four percentage points. These fields may have acute shortages of workers. In other words, conditions may be advantageous for jobseekers interested in occupation groups including:

- nursing, psychiatric and home health aides;
- retail sales workers;
- occupational and physical therapy assistants and aides;
- life scientists;
- health technologists and technicians;
- other food preparation and serving related workers;
- other personal care and service workers; and,
- personal appearance workers (beauticians, hairdressers, etc.).

These data, together with other occupational outlook data, tell us specifically where there are shortages and surpluses in the labor market and can point us to particular

Figure 5: Education and Training Requirements of Projected Job Openings in Minnesota, 2002-2012



Source: DEED, Minnesota Employment Projections, 2002-2012

areas needing short-term investment; or, perhaps requiring a shifting of resources or emphasis so that “suppliers” (education programs and other worker preparation sources) do not direct more people into fields for which there is already an ample supply relative to current or projected future demand. We can also look broadly at the kind of demand that will be needed based on education and or skill attainment. Between 2002 and

2012, over 1,100,000 new entrants to the job market will be needed to satisfy the state's industry growth and net replacement demand according to DEED's employment projections; and, it appears that education and training requirements for those jobs will increase as well. Figure 5 uses the 11 national categories of education/training requirements to assess anticipated employment growth in Minnesota between 2002 and 2012. The jobs that are growing the fastest will ultimately require some form of post-secondary education. A summary analysis of all occupations reveals growth across occupational sectors, but some will fare better than others. In percentage terms, white-collar occupations such as computer-related professions are expected to bounce back with very high growth rates, despite the experience of the recent recession. Some blue-collar occupations, such as production, are expected to see little growth while construction; installation, maintenance, and repair; and transportation occupations are expected to grow, but at below average rates over the decade. Ultimately, healthcare occupations will be among the fastest growing occupations as the state's population ages. More than one-fourth of the new jobs will be either an education (higher ed and other classifications included) or health related job.

The opportunities and wages available to tomorrow's workforce will depend greatly upon skills and ability to acquire new skills. As noted earlier, an increasing number of jobs are expected to require some level of post-secondary training. Table 3 highlights the fastest growing occupations through 2012 by their experience and educational requirements. Annual salaries for jobs requiring higher levels of education and experience are typically higher than those requiring only on-the-job training.

Table 3. Top 50 Fastest Growing Occupations by Experience and Education in the Twin Cities Region, 2002 to 2012

Job Title	2002 Estimated Employment	2002 to 2012% Change	2002 to 2012 Numeric Change	2005 Median Annual Salary
Jobs Requiring Work Experience Plus Bachelor's or Higher Degree				
Computer and Information Systems Managers	5,646	34%	1,913	\$99,914
Education Administrators, Postsecondary	1,441	43%	616	\$78,090
General and Operations Managers	22,642	19%	4,266	\$90,590
Management Analysts	9,993	33%	3,328	\$69,088
Medical and Health Services Managers	2,791	26%	730	\$76,031
Sales Managers	5,883	26%	1,539	\$102,243
Jobs Requiring A Professional, Master's or Bachelor's Degree				
Accountants and Auditors	17,417	21%	3,651	\$54,057
All Other Counselors, Social, and Religions Workers	6,456	31%	2,002	\$34,748
All Other Teachers, Primary, Secondary and Adult	7,480	24%	1,787	\$45,948
Business Operations Specialists, All Other	29,746	32%	9,533	\$50,332
Child, Family, and School Social Workers	4,215	24%	998	\$49,735
Computer Software Engineers, Applications	9,685	41%	4,013	\$75,751
Computer Software Engineers, Systems Software	4,363	47%	2,068	\$79,932
Computer Systems Analysts	8,317	35%	2,913	\$68,705
Database Administrators	1,904	41%	787	\$70,945
Graphic Designers	2,835	28%	805	\$42,518

Job Title	2002 Estimated Employment	2002 to 2012% Change	2002 to 2012 Numeric Change	2005 Median Annual Salary
Medical and Clinical Laboratory Technologists	1,831	33%	612	\$47,698
Medical and Public Health Social Workers	1,370	36%	497	\$41,039
Network and Computer Systems Administrators	3,693	37%	1,363	\$61,514
Network Systems and Data Communications Analysts	3,409	50%	1,715	\$65,907
Postsecondary Teachers	15,106	51%	7,648	\$51,777
Public Relations Specialists	3,133	35%	1,081	\$46,434
Training and Development Specialists	3,722	27%	985	\$50,040
Jobs Requiring An Associate Degree or Post-Secondary Vocational Training				
Computer Specialists, All Other	8,433	32%	2,702	\$66,701
Computer Support Specialists	9,180	31%	2,822	\$43,703
Dental Hygienists	3,086	36%	1,114	\$66,093
Emergency Medical Technicians and Paramedics	1,139	45%	507	\$38,771
Fitness Trainers and Aerobics Instructors	1,920	49%	932	\$26,728
Medical Records and Health Information Technicians	2,061	49%	1,000	\$28,943
Police and Sheriff's Patrol Officers	3,556	25%	883	\$52,592
Registered Nurses	28,072	29%	8,176	\$59,613
Jobs Requiring Long-Term On-the-Job Training or Work Experience in a Related Occupation				
Coaches and Scouts	1,793	36%	645	\$34,057
Electricians	6,075	22%	1,332	\$66,633
First-line Supervisors/Managers of Personal Service Workers	2,861	26%	745	\$32,408
Self-Enrichment Teachers	1,879	44%	832	\$42,513
Telecommunications Line Installers and Repairers	2,331	32%	734	\$41,016
Jobs Requiring Moderate-Term On-the-Job Training				
Customer Service Representatives	30,040	21%	6,272	\$32,225
Demonstrators and Product Promoters	2,857	33%	945	\$19,457
Dental Assistants	2,400	36%	863	\$37,553
Medical Assistants	3,870	44%	1,707	\$28,134
Pharmacy Technicians	4,132	33%	1,347	\$31,555
Sales and Related Workers, All Other	16,395	23%	3,772	\$44,103
Social and Human Service Assistants	5,866	53%	3,078	\$27,125
Jobs Requiring Short-Term On-the-Job Training				
Combined Food Preparation and Serving Workers, Including Fast Food	24,926	31%	6,272	\$16,088
Home Health Aides	8,015	43%	945	\$22,679
Personal and Home Care Aides	10,028	54%	863	\$20,649
Receptionists and Information Clerks	15,606	28%	1,707	\$24,545
Security Guards	10,473	29%	1,347	\$22,670
Truck Drivers, Light or Delivery Service	9,602	21%	3,772	\$29,904
Waiters and Waitresses	25,630	18%	3,078	\$13,906

Source: DEED, Minnesota Employment Projections, 2002-2012

These data give us a picture of the kind of overall demand we will have for workers, and a glimpse of which industries and occupations are likely to need workers. With that foundation, we look closely at our “worker supply” – current and future residents who will be available to meet these labor market demands.

IV. Understanding the Worker Supply Chain

To address the supply/demand gaps identified above, we begin with presumably “trained and ready” workers whose potential barrier to work is literally getting to work. From there, we move further down the “supply chain” to working-age adults in need of additional work skills and ultimately to our education systems which are intended, in part, to prepare children to become working adults. This “supply chain” analysis begins with data on commuting patterns followed by data on skill development for working-age adults (both currently employed and unemployed), followed by data on our educational systems’ success at preparing children and young adults for work.

As a starting point, however, we must first acknowledge that we are blessed in Minnesota with the second highest total labor force participation rate in the nation—7.2 out of every 10 Minnesotans work. In the Twin Cities specifically, almost three-quarters of the population is engaged in the labor force.¹¹ So, we begin with a high bar of engagement and can now look further what keeps those who are engaged from being more productive and how we will strengthen the supply chain of current and future workers.

A. Commuting and transportation for current workers The Twin Cities region is a large labor market consisting of 1.8 million jobs and a labor force of 1.7 million workers. Of the 7 counties in the region, Hennepin and Ramsey Counties are net importers of labor — these counties have more jobs than working residents. Almost 98% of the residents of the Twin Cities region work within the seven counties (see Figures 6 and 7).

Figure 6: Place of Work Residence for Twin Cities Region Residents

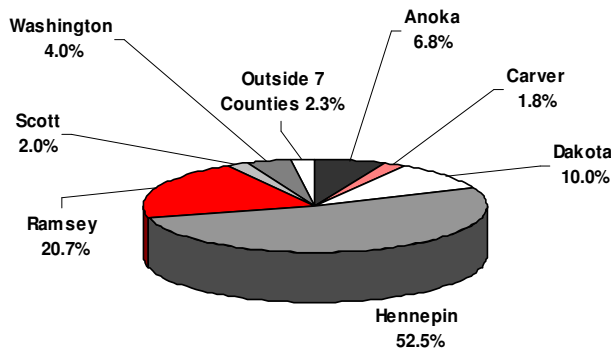
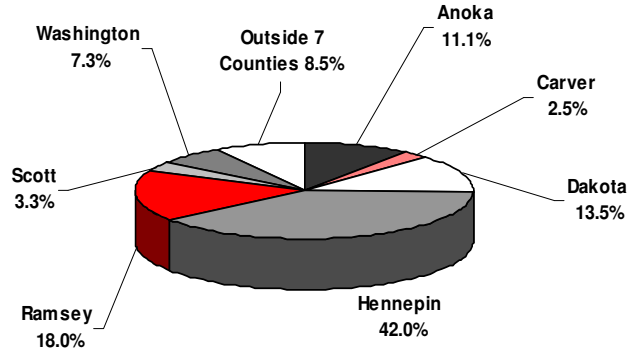


Figure 7: Place of Work for Twin Cities Area Workers



Source: U.S. Census 2000.

The largest numbers of regional workers who live outside of the seven-county Twin Cities region commute from the Wright, Sherburne, Chisago, Isanti, Rice and Goodhue counties in Minnesota and St. Croix, Pierce and Polk counties in Wisconsin.

A 2005 public opinion poll of Twin Cities Greater Metropolitan Area residents ranked traffic congestion or other transportation challenges as the region's "single most important problem."¹² Overall, 60% of residents surveyed indicated traffic as one of the top three issues facing the region and 84% think traffic congestion is getting worse.¹³ A 2005 report estimated the costs of traffic congestion in the Twin Cities Greater Metropolitan Area to include 57,737,000 wasted person-hours due to delay and 37,000,000 gallons of wasted fuel, for a total annual estimated cost of \$975 million.¹⁴

Although our region has the second lowest travel time to work relative to the largest 25 metropolitan areas nationwide¹⁵, metropolitan county residents are spending more time traveling and half of these trips consist of individuals driving alone.¹⁶ Commuting time to work in the Twin Cities Greater Metropolitan Area is also on the rise; a home-based work trip took 24 minutes in 2000, up from 21 minutes in 1990.¹⁷ In addition to inconvenience and a dip into perceived quality of life, excessive commuting time has the potential to divide our labor market. The metro area currently operates as a single labor market, in part, because residents are willing to travel from Anoka to Burnsville or from Andover to St. Paul for work. However, as transportation becomes a barrier to that mobility, we risk a more divided and less efficient labor market.

Affordable access to various reliable modes of transportation may be critical for jobseekers to compete for jobs across the geographic area. For instance, a recent report by the Brookings Institution Metropolitan Policy Program indicates that "[w]hile [the cities of] Minneapolis and Saint Paul have only 30% of the region's employment, they have 58% of legal occupations, 40% of healthcare jobs, and 35% of computer jobs."¹⁸ The suburbs, on the other hand, contain the bulk of the region's employment, but have more than their share of lower-skill, lower wages jobs.

As such, access to regional transportation or a vehicle may be indispensable for some individuals to find a job somewhere within the region's labor market with a given skill set. The vast majority of residents own or have access to a car and 78% of the region's residents drive alone to work. On the other hand, about 8% percent of household and rental units in the Twin Cities Greater Metropolitan areas do not have access to a vehicle; approximately 22% of which are minority households.¹⁹ Additionally, dependence on public transportation to get to work is highest among African-Americans (19%) and Latinos (12%) in the Twin Cities region.²⁰ Clearly, these transportation issues impact the workforce and business competitiveness and disproportionately contribute to the ethnic and racial gaps cited by the Itasca Group's "Mind The Gap" study produced by the Brookings Institution²¹.

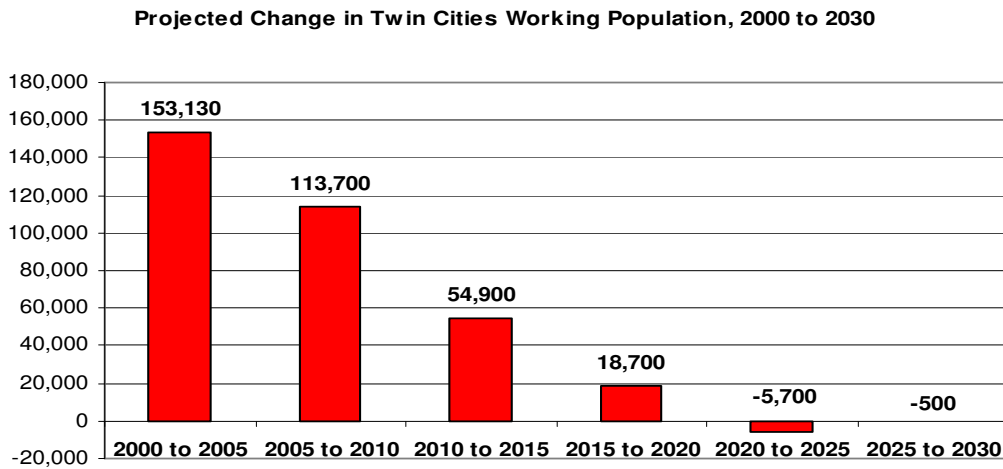
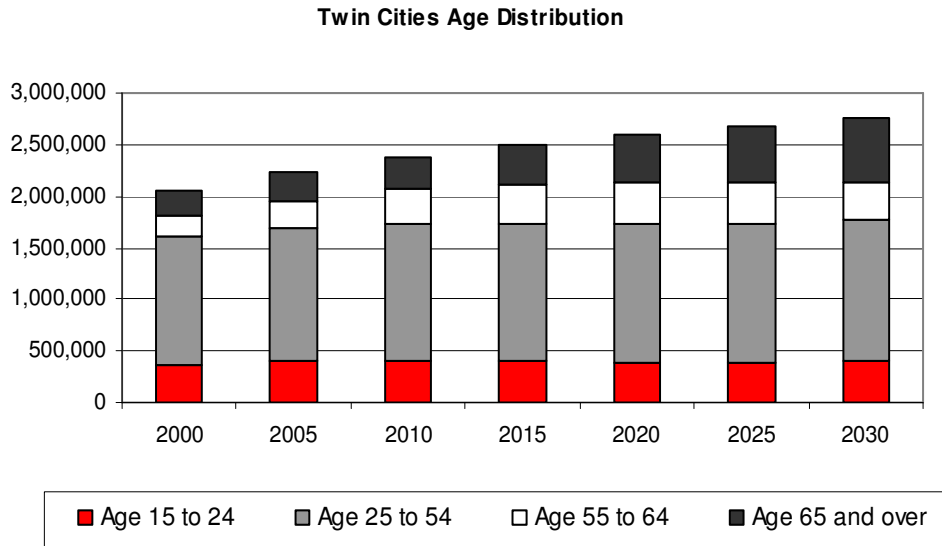
B. Future Labor Supply and Skills Projections Long-term forecasts suggest that our labor supply is shrinking due to the slow growth rate of the working-age population. This may keep unemployment low, but will also create workforce supply constraints in the coming decades.

In the 1990s, working age (15-64) population growth in the Twin Cities averaged 1.5% per year. Minnesota's State Demographer projects continued growth at about that pace until 2010. Then, by 2015, workforce growth will slow dramatically as members of the Baby Boom generation, currently the largest share of the workforce, begin to retire. By 2025, the number of retirement-age workers is expected to exceed the number of replacement workers entering the workforce (see Figure 8).

For individuals considered to be in the prime of their working life (age 25 to 44) labor force growth is projected to increase between 2005 and 2025, albeit at declining rates. Overall the largest growth in the labor force between 2000 and 2030 will be for individuals aged 60 and over with a growth rate of over 200%. In the Twin Cities, Ramsey County will have positive labor force growth only among the cohorts age 45 and over between 2000 and 2030, suggesting that it has a slightly more rapidly aging population than other metro area counties.

The overall impact of aging Baby Boomers cannot be emphasized enough – and that wave begins in less than five years when the oldest Baby Boomers turn 65 and start to retire in large numbers in 2011.²² To illustrate the impact the aging population has on the labor force, consider the following example. In 2000 total jobs in the Twin Cities were 1,600,500 with approximately 1,679,800 Twin Cities residents in the labor force.²³ By 2012 employment is projected to be 14.9% higher, or a total of 1,978,200 jobs with an approximate 1,779,200 people in the labor force.²⁴ That's not enough people to fill the jobs.

Figure 8. Working Age Distribution and Population Projections in the Twin Cities Region, 2000 to 2030



While the number of people of working age will continue to increase, the projected slowdown in the rate of growth poses a challenge for the region and its employers. In the long run, job growth is constrained by population. Future employment growth, if it is to happen, will require a trend change in the region’s demographics. We will increasingly need to look towards other solutions to meet our work force needs including technology advancements to help workers be more productive; and, continued serious effort to engage “nontraditional” or underutilized pools of labor to fill jobs, including immigrant populations and expanding the presence of people with disabilities and special needs in the workplace. Individuals at retirement age may also choose to stay in the labor force longer or be wooed by high wages, shorter hours or good working conditions to stay longer. In the Twin Cities, we can tap these additional sources of labor that, with investment in education and training, will bring necessary and reliable participants into the labor market in the coming decades.

C. Education and the Workforce Preparation Pipeline Growing industries, growing occupations and the associated skill sets define workforce pipeline needs. Industries and occupations that are growing draw new workers into the market and create opportunities for incumbent workers to advance into positions of greater complexity and responsibility.

An assessment of our pipeline begins with investments in early childhood. Research has consistently demonstrated that investments made by parents during the first five years of a child's life towards his or her language, motor and cognitive skills are equated with success in school and increase the child's societal contribution. The absence of support in early childhood is demonstrably linked to higher school drop-out rates, and likelihood for future poverty and incarceration.

Ultimately, a goal of K-12 education is to prepare students for either entry into a post-secondary educational program or entry into the workforce. Student success is highly correlated to socio-economic factors, including race and ethnicity, family income, and location — often with a bright line divide between students living in suburban versus central cities.

Table 4. Enrollment in Twin Cities Region Schools, 1997-2006

	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Anoka	62,777	63,683	64,033	64,458	64,902	64,749	64,755	65,380	65,769
Carver	10,950	11,379	11,830	12,284	12,818	13,108	13,430	13,851	14,392
Dakota	70,102	71,138	72,390	72,767	73,395	73,760	74,281	74,051	74,401
Hennepin	156,464	158,752	158,742	159,905	159,445	157,951	156,835	154,728	153,648
Ramsey	86,687	87,769	89,007	88,768	88,056	87,408	85,802	84,916	84,039
Scott	12,477	12,995	13,459	14,064	14,937	15,572	16,499	17,599	18,371
Washington	35,455	35,786	36,103	36,627	36,851	37,180	37,404	37,086	38,184
Total Twin Cities Region	434,912	441,502	445,564	448,873	450,404	449,728	449,006	447,611	448,804

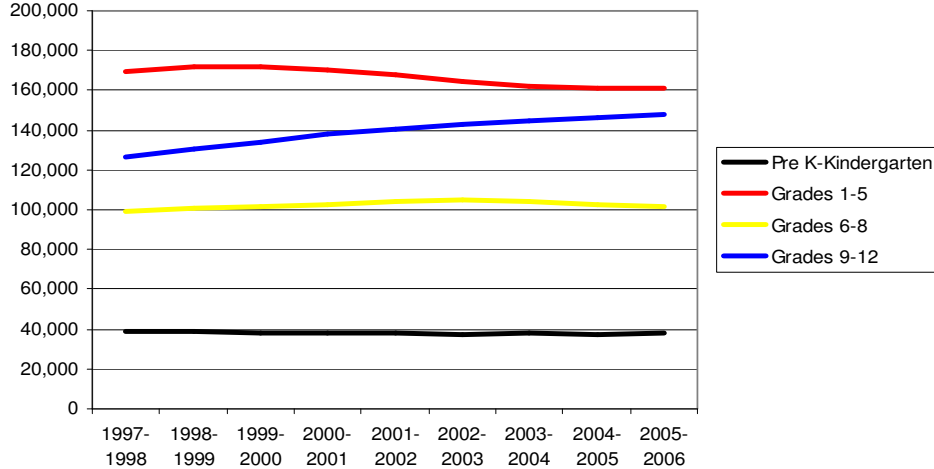
Source: Minnesota Department of Education. Note: These counts include pre-kindergarten through 12th grade enrollment in public or nonpublic schools as of October 1 of each year.

K-12 enrollment and performance has remained fairly stable over the last few years in the Twin Cities region. In fact, enrollment for the 2005 to 2006 school year is up by less than one% from enrollment during the 2000 to 2001 school year (see Table 4). In addition, enrollment growth over the past six years has been strong in some Twin Cities region counties, with particular gains in Scott County (up by 30.6%) and Carver County (up 17.2%). On the other hand, enrollments in Hennepin and Ramsey counties have been on the decline since the 2000 to 2001 school year. These numbers likely reflect the residential growth in Scott and Carver relative to Hennepin and Ramsey.

By grade, the number of students in Twin Cities schools shows fewer students enrolled in elementary grades and more students in high school (grades 9 to 12). Comparing the 2000 to 2001 school year with the 2005 to 2006 school year, there were 2.1% more students enrolled in pre-kindergarten or kindergarten, and 3.7% more students enrolled in grades 9 to 12. Fewer students were enrolled in the elementary (-2.2%) and middle school (-3.2%) grades (see Figure 9).

However, one of the most striking trends is the increasing diversity of our education pipeline, particularly in suburban areas. Some Twin Cities suburban schools had large increases in minority K-12 enrollment with Anoka-Hennepin (#0011) and Osseo (#0279) school districts

Figure 9. Enrollment in the Twin Cities Region Schools by Grade,



Source: Minnesota Department of Education. Note: Counts include pre-k through 12th grade enrollment in public or nonpublic schools as of 10/1 of each year.

districts gaining more than 2,000 minority students between the 2000-2001 and 2004-2005 school years (see Table 5).

The Hispanic student population saw the largest enrollment increase statewide at 44% with the largest numeric gains in the Minneapolis (#0001), St. Paul (#0625), Richfield (#0280), and Rosemount-Apple Valley-Eagan (#0196) school districts.²⁵ In total, 20% of students enrolled in Minnesota public schools are students of color.

Table 5. Twin Cities Region School Districts with the Largest Gains and Losses in Minority Enrollment, 2000-2001 to 2004-2005

District Name (and Number)	County	Change in Enrollment
Largest Gains in Minority Enrollment		
Anoka-Hennepin (0011)	Anoka	2,382
Osseo (0279)	Hennepin	2,259
Robbinsdale (0281)	Hennepin	1,386
Rosemount-Apple Valley-Eagan (0196)	Dakota	1,317
South Washington County (0833)	Washington	1,105
Bloomington (0271)	Hennepin	770
Shakopee (0720)	Scott	713
Richfield (0280)	Hennepin	698
Largest Losses in Minority Enrollment		
Minneapolis (0001)	Hennepin	-6,294
St. Paul (0625)	Ramsey	-661
New Voyage Academy Charter School (4019)	Ramsey	-26

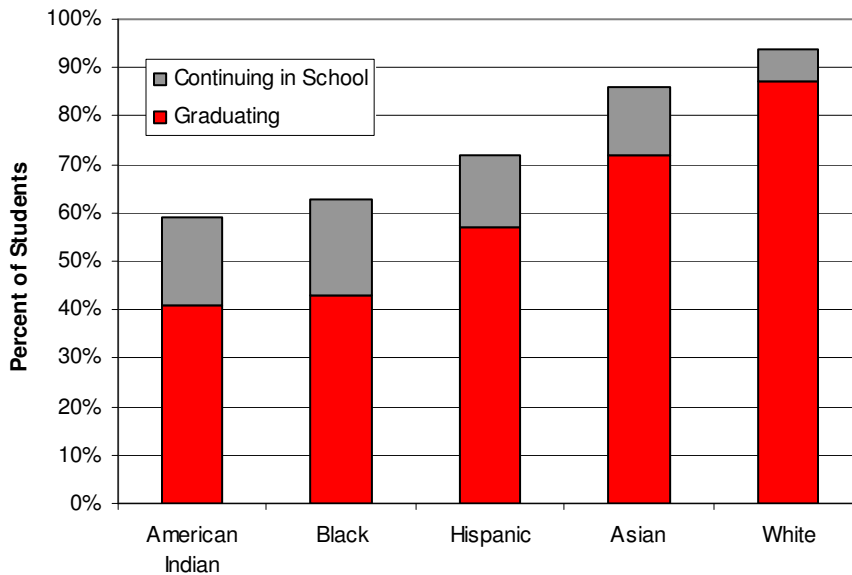
Source: Minnesota Department of Education via Minnesota State Demographic Center

As mentioned previously, performance disparities in schools often exist on socio-economic divides. Consider results from the Minnesota Comprehensive Assessments (MCA) given to third-grade students. While the overall number of students passing these tests has increased between 1999 and 2005, White students have consistently scored higher than students of color in both in reading and mathematics.²⁶ This achievement gap is particularly troublesome for Black students who have performed below all ethnic/racial groups.

A similar pattern exists in the eighth-grade Basic Skills Test (BST) given in reading and mathematics. While the overall number of students passing these tests has increased over the past 5 years, achievement gaps remain. In 2005, statewide data show 89% of White students passed the BST in reading compared to 76% of Asian students, 67% of American Indian students, 64% of Hispanic students, and 56% of Black students.²⁷

Not surprisingly, disparities in performance also extend to on-time graduation (referring to students who graduate four years after entering the ninth grade). White students have the highest rate of on-time graduation (87%) followed by Asian (72%), Hispanic (57%), Black (43%), and American Indian (41%) students (see Figure 10).

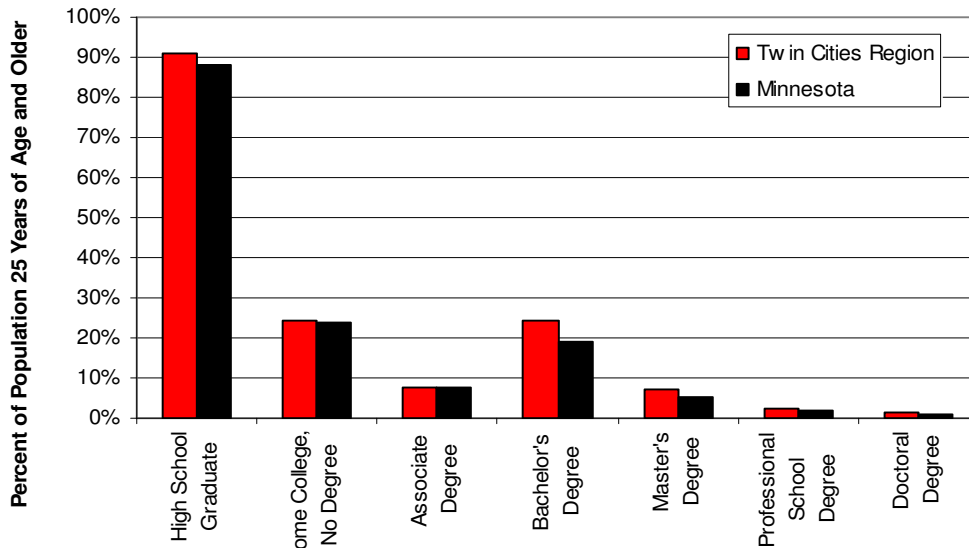
Figure 10. On-Time Graduation Rates for Twin Cities Region Students, 2001



Source: Wilder Research Center, Metro Trend Watch, 2004. Data are from the MN Department of Education.

Minnesota has a proud tradition of higher education and generally speaking, residents of the Twin Cities region have high levels of educational attainment. In the Twin Cities, 91% of individuals 25 years of age and older have a high school diploma or equivalency compared to 88% across Minnesota (See Figure 11). Additionally, 67% have gone on to complete some form of post-secondary training, including 24% who have a Bachelor’s degree and 7% with a Master’s degree.

Figure 11. Educational Attainment of Residents Age 25 and Over in the Twin Cities Region, 2000



Source: U.S. Census 2000

Educational attainment by race or ethnic group in the Twin Cities region, however, reveals disparities. Mexicans and Hmong have the lowest shares of adults without a high school diploma or equivalency, and the trend continues into higher education. The number of Black (19%), Mexican (11%), Native American (11%) and Hmong (8%) adults with a Bachelor’s degree lag the regional average of 23%.

In addition to core classes in high school, most students are required to take a college entrance exam to enroll in a four-year college. In fact, 68% of Minnesota’s high school seniors take with the ACT college entrance exams.²⁸ Minnesota’s average ACT score in 2006 was 22.3 and Minnesota ranked 1st among states in which more than half of their college bound students took the test.²⁹ Overall, 41,563 high school juniors and seniors in Minnesota—or 27%—participated in college preparatory activities including post-secondary enrollment options, advanced placement and international baccalaureate programs. Participation/enrollment rates following high school are weaker among non-Whites than among White students. However, the more salient point here is that larger numbers of students of color drop out of school prior to high school graduation. According to the Minnesota Office of Higher Education, this is an indicator of whether post-secondary education is accessible to a broad socio-economic range of high school graduates, as well as whether Minnesota and the nation are preparing people with skills to meet future workforce demands.³⁰ Metro data from Wilder Research shows that likelihood of on-time graduation is markedly lower for Black (43%) and American Indian (41%) students while White students are most likely to graduate on time (87%) followed by Asian (72%), and Hispanic/Latino (57%).³¹

When students do matriculate to college, we are improving in our ability to move them through that preparatory phase and into the labor market. Enrollment and graduation rates in Minnesota post-secondary institutions are up from a decade ago. Table 6 illustrates total enrollment by institution type across Minnesota in the last five years. In the fall of 2004, over 348,400 students were enrolled in Minnesota’s post-secondary

institutions. However, students of color accounted for only 13% enrollment. Compared to 1995, the number of black enrolled students has more than doubled from 7,086 to 17,175. The number of Asian and Hispanic (56%), and American Indian (15%) students is also up and at a greater percentage than White enrollment (9%) between 1995 and 2004.³²

Table 6. Total Enrollments by Post-Secondary Institution Type in Minnesota, 2000-2004

	2000	2001	2002	2003	2004	2003-2004 Change	2000-2004 Change
University of Minnesota	59,183	60,433	62,789	63,769	65,247	2.3%	10.2%
State Universities	58,073	60,523	62,704	63,686	63,542	-0.2%	9.4%
Community and Technical Colleges	101,875	105,267	109,844	113,408	112,582	-0.7%	10.5%
Private College and Universities	57,351	57,649	59,948	60,480	61,912	2.4%	8.0%
Private Graduate and Professional	3,423	3,661	3,108	4,812	4,132	-14.1%	20.7%
Private Career Schools	9,705	9,624	12,845	33,511	40,967	22.2%	322.1%*
Total	289,610	297,157	311,238	339,666	348,384	2.6%	20.3%

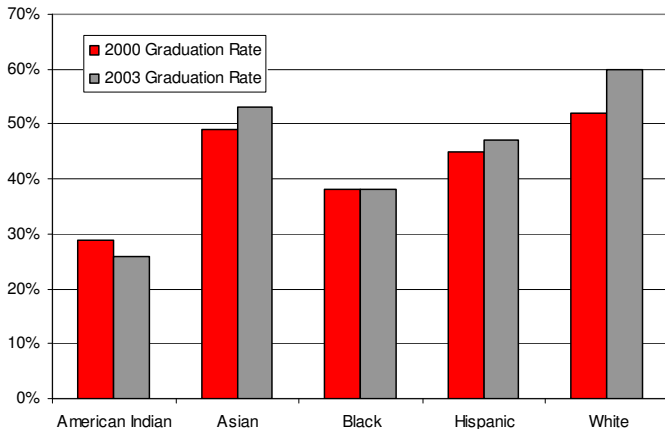
*Large increase due to more schools reporting data; increases in private career school enrollment; and enrollment reporting by Capella and Walden Universities-nationwide online institutions with corporate offices in Minnesota.

Source: Minnesota Office of Higher Education Basic Data Series, 2004

The majority of Minnesota students who attend a post-secondary institution do so in Minnesota. Only 15% of Minnesota high school graduates attend a college out-of-state. Of those students remaining in Minnesota, 40% attend a community or technical college; 21% attend a state university; 20% attend a private college or career college; and 19% attend the University of Minnesota.³³

It is estimated that in 2003, 58% of new degree seeking students who entered in 1997 has graduated from Minnesota four-year higher education institutions.³⁴ This statistic is higher (72%) for students who attended private colleges and universities in Minnesota. Overall, graduation rates in Minnesota’s four-year post-secondary institutions are up for White, Hispanic and Asian students between 2000 and 2003 (see Figure 12). Graduation rates for Black students remained the same at 38% and declined by three percentage points for American Indian students.

Figure 12. Graduation Rates for Students in Minnesota’s Four-Year Post-Secondary Institutions



Not surprisingly, just as graduation rates have increased so to have the number of degrees awarded at Minnesota post-secondary institutions over the last decade. The number of Master’s degrees awarded in Minnesota increased the most—101%—over the decade. Associate degrees (28%), Bachelor’s degrees (21%) Doctorates (10%) and first Professional degrees (8%) awarded were also up during the 1994-1995 to 2003-2004 academic years.

Source: Minnesota Office of Higher Education

So while the data suggests that we are improving, there is still a significant achievement gap by race/ethnicity of students graduating from high school and continuing to higher education. While the data presented here are generally statewide, there is ample evidence that the metro area at least mirrors these trends, if not experiencing an even larger gap than suggested by these data.

D. Shaping Stronger Supply and Demand Matches

As students and working adults flow through the education and workforce preparation pipeline, we have concerns about overall volume and the rate at which individuals move through a program of study in preparation for work. As noted earlier, we also have concerns about specific areas of study and the (mis)match between preparation and demand for current skills in the workplace.

Table 7 lists the number of certificates and diplomas awarded by select programs of study in programs that are generally less than two years. Certificates and diplomas awarded in health sciences almost doubled between the 1998-1999 and 2003-2004 school years. On the other hand, awards in precision production declined by 63% over the same time period.

Table 7. Certificates and Diplomas Awarded by Select Programs of Study, 1999-2004

	1998-1999	2000-2001	20001-2002	2002-2003	2003-2004
Business, Management and Marketing	2,912	2,560	2,042	1,398	1,614
Communications Technologies and Journalism	304	199	105	158	174
Computer and Information Sciences	488	1,372	1,223	547	529
Construction Trades	706	NA	1,189	1,233	1,403
Engineering Technologies/Technicians	406	269	284	439	498
Health Sciences	2,686	2,381	2,029	3,160	5,266
Mechanic and Repair Technologies/Technicians	1,384	NA	999	1,298	1,205
Personal and Culinary Services	1,789	1,130	1,814	2,036	1,563
Precision Production	1,346	3,282	898	564	494
Transportation and Materials Moving	543	383	416	406	430
Visual and Performing Arts	415	317	268	217	192

Source: Minnesota Office of Higher Education. Data are from the U.S. Department of Education, IPEDS Surveys. Note: Programs in this category are generally less than 2 years in length and are offered predominately at private career schools and public community colleges. Double majors are included. Some variance in awards conferred by program may be due to fluctuations in types of private career schools that report data from year to year, and the types of programs offered at these institutions. NA= Not Available

The largest numbers of associate degrees awarded by program of study are health sciences; liberal arts and sciences; and business, management and marketing degrees. Awards in the health sciences field have been relatively stable over time, but have increased by 43% between the 2000-2001 and 2003-2004 school years (see Table 8).

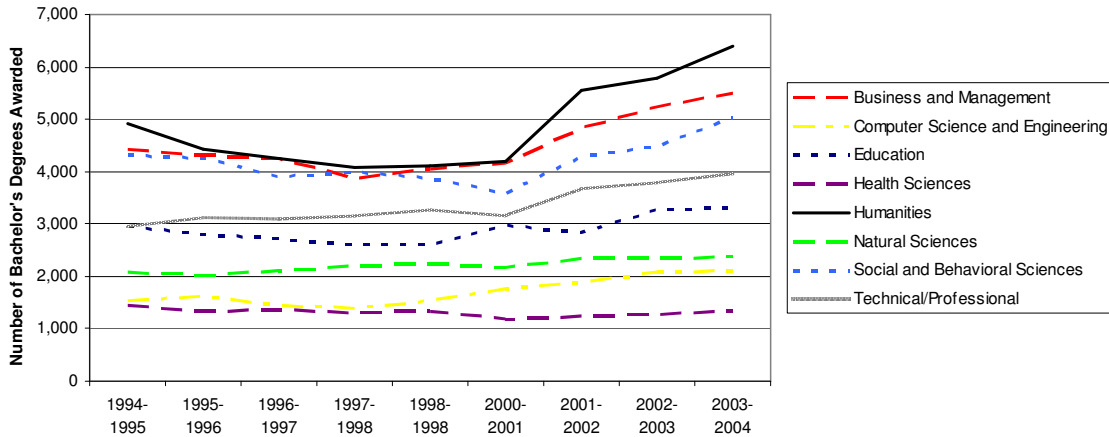
Humanities, business and social sciences account for the highest number of Bachelor’s degrees awarded by program of study in both 1994 and 2004.³⁵ Health sciences, computer and engineering, and natural sciences account for the smallest number of Bachelor’s degrees awarded (see Figure 13). In fact, the number of humanities (52%) and social and behavioral sciences (40.9%) degrees has increased the most between the 2000-2001 and 2003-2004 school years. Natural science (9.7%) and health sciences (10.7%) have increased the least over the same time period.

Table 8. Associate Degrees Awarded by Select Programs of Study, 1995-2004

	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	2000-2001	2001-2002	2002-2003	2003-2004
Business, Management and Marketing	1,464	1,693	1,508	1,399	1,566	1,886	2,069	1,765	1,681
Communications Technologies and Journalism	135	1,345	284	256	234	472	490	400	371
Computer and Information Sciences	50	30	37	87	127	69	249	1,189	931
Construction Trades	235	131	268	92	138	NA	160	179	202
Engineering Technologies/Technicians	719	1,347	642	455	499	572	613	852	980
Health Sciences	2,264	2,057	2,232	2,242	2,216	2,151	2,323	2,577	3,081
Liberal Arts and Sciences	4,185	4,153	4,414	4,623	4,454	3,704	3,781	4,102	4,174
Mechanic and Repair Technologies/Technicians	377	217	356	140	121	NA	163	284	291
Securities and Protective Services	528	550	551	5	472	401	451	507	625
Precision Production	327	110	393	178	278	733	402	30	26

Source: Minnesota Office of Higher Education. Data are from the U.S. Department of Education, IPEDS Surveys. Note: Double majors are included starting in 2001. NA= Not Available

Figure 13. Bachelor’s Degrees Awarded by Program of Study at Post-Secondary Institutions in Minnesota, 1995 to 2004



Source: Minnesota Office of Higher Education. Data are from the U.S. Department of Education, IPEDS Surveys. Note: Data for 1999 are not available and starting in 2001, double majors are included.

The number of individuals completing a Baccalaureate degree in Minnesota is expected to decline by almost 12% between 2007 and 2017 according to a report by the Minnesota Private College Research Foundation.³⁶ This decline is largely driven by falling numbers of high school graduates between 2003 and 2013 and will mean, on average, 3,100 fewer individuals with Bachelor degrees in Minnesota’s workforce each year.³⁷

The individual trends in post-secondary education attainment are favorable. However, taken together, the data also show that Minnesota is awarding as many certificates and Associates degrees combined as bachelor’s degrees³⁸ although we continue to have a growing demand for workers with Bachelor’s degrees. Approximately, 9,800 new jobs will be added to the economy between 2002 and 2012 that will require a Bachelor’s degree.³⁹ This represents about 23% of all new job growth over the decade. In 2002, only 17% of existing jobs required four years of post-secondary education.

A specific disruption in both the flow and content match of the education pipeline is the growing number of students who need remedial or developmental courses along the

way. Within two years of high school graduation in 2002, 49% of students enrolled in a Minnesota public post-secondary institution. Of these students, 36% took one or more developmental courses in mathematics, writing or reading.⁴⁰

Mathematics was the most common developmental course taken with 28% of 2002 graduates enrolled either alone or in combination with another remedial course; 17% were enrolled only in mathematics courses.⁴¹ Two-year public colleges were more likely to enroll recent graduates in developmental classes (7,906 individuals or 46% of their entering students) than Minnesota's four-year state universities (1,979 individuals or 29% of their entering students) or the campuses of the University of Minnesota (434 individuals or 8% of their entering students).⁴²

Overall, the need for remedial classes in 2001 and 2002 is higher than comparable data from 1999 and 2000. At the same time, however, the two year enrollment rates in public higher education increased and could indicate that more high school graduates who did not plan for college are enrolling in post-secondary education.⁴³ Additionally, individuals who return to school after having entered the workforce after high school may need developmental classes to relearn skill sets they have lost.

College degree attainment rates, disparities among ethnic/racial groups, and concerns regarding remedial education collectively suggest that we may be creating weaker supply/demand matches and producing a labor market that will become further segregated by race or ethnicity over time. As labor market conditions tighten, bringing up the educational standards of all Minnesotans becomes an issue of not just equity but is vital to our own economic performance.

Finally, in looking at how we shape supply/demand matches, we must recognize that Minnesota's economy mirrors our national economy in becoming an increasingly knowledge-based economy where every sector now demands unprecedented knowledge and technological sophistication. In 2004, approximately 31% of employment in Minnesota could be described as "knowledge employment" including everything from management and computer occupations to healthcare and legal fields.⁴⁴ Knowledge employment makes up almost one-third of total employment the Twin Cities Greater Metropolitan Area.

One obvious question then is what skills and knowledge will be needed for the jobs of the future. Table 9 contains a fairly broad list of skills identified with the fastest growing occupations in Minnesota between 2002 and 2012. Topping the list are skills that are needed by employers all the time, such as communication skills needed across occupations regardless of skill level. Customer service, mathematics and clerical knowledge areas also rank very high.

The workforce preparation pipeline has a few points of significant blockage and needs continual refining so that it not only has greater throughput, but also produces skills needed for the labor market in a timely fashion.

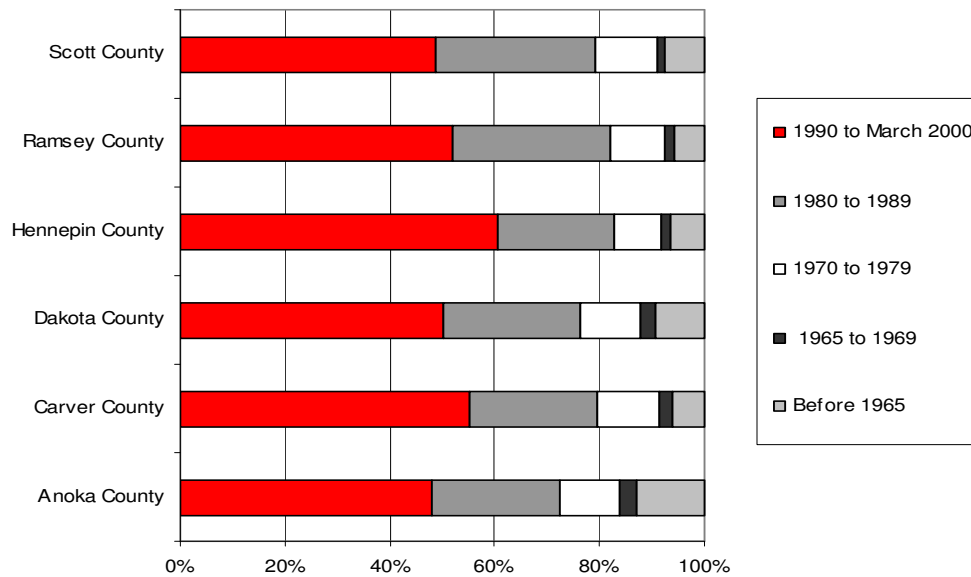
Table 9. Skills and Knowledge Areas Projected to be Most Utilized by Future Occupations in Minnesota, 2002 to 2012	
Skills areas projected to be most utilized by future occupations	Knowledge areas projected to be most utilized by future occupations
Reading Comprehension	Customer Service
Active Listening	Mathematics
Speaking	Clerical
Writing	Education/Training
Active Learning	English
Coordination	Sales/Marketing
Monitoring	Psychology
Instructing	Computer/Electronics
Critical Thinking	Administration/Management

Source: DEED, Minnesota Employment Projections, 2002-2012

E. Special Considerations Regarding Immigrants All the data thus far on our supply of workers suggests that we will continue to need more people than Minnesotans are naturally producing; and, that we have specific skill needs that must be addressed if we are to remain competitive. Minnesota attracted approximately 100,000 (2% of total population) as new residents from other states in 2005.⁴⁵ However our greatest available asset in building a future workforce is likely to be the significant number of foreign-born individuals who increasingly call Minnesota home. Results from the 2000 Census indicated that Minnesota’s foreign-born population had increased substantially over the decade topping 260,000 or 5.3% of the state’s population. Although Minnesota’s concentration of foreign-born residents is below the national rate (11.1%), immigrants arriving from Africa and Latin America had increased by 621% and 577%, respectively.⁴⁶ In fact, Minnesota has the highest concentration of African immigrants (compared to total immigrants) then any other state, the majority of whom are from Somalia, Ethiopia or Liberia and live in Minneapolis. Additionally, during the 1990s, the largest single country of origin for new Minnesotans was Mexico—contributing 16% or 41,600 people to Minnesota’s foreign-born population.⁴⁷ Between 1990 and 2000, Minnesota’s Hispanic or Latino population grew 168%—to over 143,000.⁴⁸ It is expected that by 2030 at least 6.5% of Minnesota’s population will be Hispanic or Latino.⁴⁹

The “immigrant advantage” is of particular value to the Twin Cities. In 2000, the majority of the state’s foreign-born population— 206,000 individuals—resided in one of the seven Twin Cities region counties. Over 115,000 individuals arrived during the 1990s alone thereby doubling the number of foreign-born individuals in the Twin Cities region in just 10 years (see Figure 14).

Figure 14. Year of Entry for Foreign-Born Population in the Twin Cities Region



Source: U.S. Census 2000

Since 2000, an additional 43,000 foreign-born individuals now call Minnesota home (see Table 10). Most recently, 11,708 legal immigrants came to Minnesota in 2004 according to the Department of Homeland Security. Minnesota ranked 16th nationally among number of immigrants arriving in 2004; California, New York, Texas, Florida and New Jersey had the most immigrants, accounting for 61% of all legal immigration to the United States. The majority of legal immigrants arrived from Africa or Asia. Five countries - Somalia, Ethiopia, India, Mexico and the Philippines - accounted for 36% of immigrants who arrived in Minnesota in 2004.⁵⁰ Additionally, 47% of Minnesota’s legal immigrants who arrived in 2004 were between ages 18 and 35 – early working years.⁵¹

The vast majority (9,814) of immigrants arriving in Minnesota came to the Twin Cities Greater Metropolitan Area in 2004. It is estimated that 11.9% of Hennepin County’s population in 2003 was foreign-born.⁵² Similar estimates are available for Ramsey County (11.6%), Dakota County (7.2%), and Anoka County (3.9%).

Table 10. Legal Immigrants to Minnesota by Region of Birth, 2000 to 2004

	Minnesota					Minneapolis-St. Paul MSA
	2000	2001	2002	2003	2004	2004
Africa	1,900	2,641	4,277	2,775	4,319	3,693
Asia	3,050	3,878	4,288	2,814	3,697	3,175
Europe	1,900	2,421	2,597	1,362	1,620	1,369
North America	1,356	1,606	1,736	626	1,510	1,080
Caribbean	139	132	121	88	122	96
Central America	238	312	403	252	406	335
Other North America	64	120	NA	626	NA	649
Oceania	49	62	51	0	51	40
South America	391	541	549	400	456	408
Unknown	25	17	24	10	NA	49
All Countries	8,671	11,166	13,522	8,406	11,708	9,814

Source: Department of Homeland Security.

Additionally, immigrants may enter the U.S. intending to live in another state and subsequently move to Minnesota or enter the U.S. destined for Minnesota and move outside of the state. In 2004, about 11% of people moving to Minnesota from other states are foreign-born; numerically, this is about the same number of individuals who immigrate from abroad.⁵³

2000 Census data also tracks the number of foreign-born residents who had lived in a different residence—within the state or out of state—in 1995. Approximately 42% of Minnesota’s foreign-born population (five years of age and over) had lived in the same residence in 1995 and 2000; and an additional 38% lived somewhere else in Minnesota in 1995. Of the remaining foreign-born residents (35,800) who migrated to Minnesota from another state, the majority came from California, Texas, New York and Wisconsin.⁵⁴

Language is a potential barrier for immigrants when entering the labor force. In the Twin Cities region, 11% of the population age 18 to 64—or 184,730 individuals—speak a language other than English at home. Of those, 53% speak English “very well,” 23% speak English “well,” 19% speak English “not well, and 6% do not speak English at all.⁵⁵

In 2000, approximately 32,900 individuals or 56% of the population 18 years of age or older who had limited English proficiency—defined as those who speaks English “not well” or “not at all”—were engaged in the labor force.⁵⁶ Of those who were employed, 37% worked in production, transportation and material moving occupations; 28% were employed in service occupations; 13% were employed in management, professional and related occupations; and 13% worked in sales and office occupations.

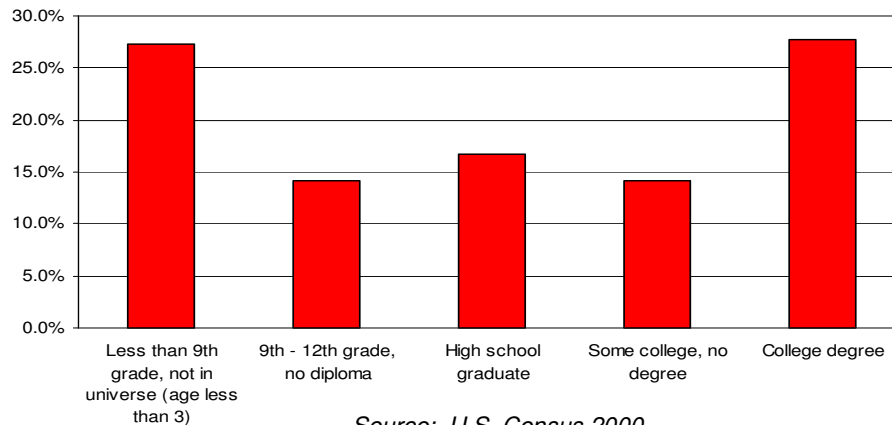
Furthermore, at least 102 different languages were spoken in Twin Cities’ schools in 2005-2006. Out of 443,987 K-12 Twin Cities school children, 85% speak English.⁵⁷ After English, the top 10 languages most spoken in Twin Cities region schools are:⁵⁸

- Hmong (21,761 students)
- Spanish (19,684 students)
- Somali (6,058 students)
- Vietnamese (2,586 students)
- Russian (1,989 students)
- Chinese (1,378 students)
- Laotian (1,291 students)
- Cambodian (1,205 students)
- English – Creolized (1,149 students)
- Arabic (918 students)

Teaching English to children who are new Americans is largely accomplished by the school system’s English as a Second Language (ESL) program. Most of these children will complete school and enter the workforce with strong English skills. However, teaching English to adults who are new Americans is the job of Minnesota’s Adult Basic Education (ABE) programs. In fiscal year 2002, 82,778 individuals participated in ABE programs in Minnesota—45% of which were ESL participants.⁵⁹ The demand for ABE classes is high— enrollment in ABE has increased by 83% since 1995 largely due to interest in ESL classes.⁶⁰

According to the 2000 Census, approximately 27.7% of all foreign-born residents living in the Twin Cities region have a college degree and another 14.2% have taken some college courses (See Figure 15). It is not clear from these data what level of educational attainment immigrants have when they arrive in Minnesota or the Twin Cities region.

Figure 15. Educational Attainment of Foreign-Born Residents Living in the Twin Cities Region, 2000



However, English language skills and education are related. In 2000, approximately 37% of the foreign-born population 18 years of age or older who had limited English proficiency—defined as those who speak English "not well" or "not at all"—had less than a 9th grade education. Twenty percent had a high school diploma or equivalency and 14% had an Associate, Bachelor's or graduate or professional degree.

The impact of immigration on our workforce cannot be understated. Between 1996 and 2000, foreign-born workers comprised half of the net increase in the U.S. labor force.⁶¹ This trend has continued; from 2002 to 2004, the number of foreign-born labor force participants grew by about 1.2 million nationally and accounted for a little less than half of total labor force growth over the same period.⁶² In Minnesota, Nobles County had the highest proportion of employed persons who (in 1999) were foreign-born. Three counties in the Twin Cities region—Ramsey County (10.3%), Hennepin County (10.2%), Dakota County (5.5%)—also had high proportion of foreign born workers in 1999.⁶³

Besides bringing a wealth of diversity to the workplace, the impact on immigrants on the economy is significant. It is estimated that immigrants contribute up to \$10 billion to our gross domestic product (GDP) and more than 10 times that in federal, state and local tax dollars nationwide.⁶⁴

V. Future Workforce Realities

Like the rest of the nation, the Twin Cities region is experiencing structural shifts in economic activity. Shifting employment patterns may produce supply or demand gaps for different industries. Innovations in biotechnology, materials engineering, communications and information technology are making new products and services available. While new technologies often create entirely new fields of employment, the deployment of new technologies in production processes continues to displace workers in less-skilled fields. Worker displacement is particularly evident in fields involving routine and repetitive tasks.

As technology and competition continue to displace workers and structurally change Twin Cities employment patterns, workforce readiness becomes increasingly important. To avoid future gaps in specific industries or skills, education and training must enable

displaced workers and new workers alike to meet the challenges of increasingly technical work roles. Opportunities exist as the development of more sophisticated products and services are expected to create more jobs than are destroyed.

The impact of a globalized economy, as noted earlier, cannot be understated. The competitiveness of the Twin Cities region reaches beyond our nation's borders whether through importing, exporting, foreign direct investment, or offshoring. Inevitably, the issue of offshoring or outsourcing of Minnesota jobs has become a topic of concern. A 2004 survey conducted by DEED and Minnesota Technology Inc. (MTI) illustrated that larger sized firms (250 or more employees) are more likely to offshore the production of goods or other services (see Table 11).⁶⁵

Table 11. Percent of Minnesota Firms Engaged in Global Activities, April 2004

	Business Size		
	Small (10 to 99 employees)	Medium (100 to 249 employees)	Large (more than 250 employees)
Exporting	25%	50%	55%
Importing	22%	50%	47%
Offshoring back-office/call center services	2%	4%	18%
Offshoring goods production	16%	38%	42%
Offshoring IT services	7%	3%	11%
Offshoring professional, technical, or business services	5%	11%	16%

Source: DEED and Minnesota Technology Inc., April 2004 Business Survey

The number of Minnesota firms involved in global activity has also increased substantially since 1998. In 1998, 14% of firms outsourced the production of goods to non-U.S. locations, while three% outsourced any type of services. By 2003, that number doubled; 28% outsourced goods or services. The majority of businesses, however, anticipate no changes to employment due to increased globalization.⁶⁶

Nationally, it is estimated that U.S. companies will create 200,000 to 300,000 offshore jobs per year over the next 30 years.⁶⁷ In the near term, offshoring is expected to affect less than two percent of all service jobs. In fact, only one percent of service layoffs involving more than 50 employees in the first quarter of 2004 were due to offshoring activities according to the Bureau of Labor Statistics.⁶⁸

These broad shifts will continue to impact the Twin Cities labor market in the short-term; and, will likely create more significant change over the longer-term which will not be limited to this region; but, clearly will shape our overall economy for decades to come. While there may not be specific actions by local policymakers that would be meaningful in response to these trends, it is critical that local efforts not try to fight these trends individually or with protectionist tendencies, as this is likely to isolate and weaken the local economy relative to state and national economic growth.

VI. How Will We Win The Race?

The data presented above sets the context for action and clearly calls out for a few specific steps to be taken by policymakers, business leaders, and other stakeholders in the Twin Cities to strengthen the Twin Cities labor market and address some of the most obvious concerns highlighted in the data. Leaders from the Greater Metropolitan Workforce Council and other stakeholders have reviewed the data above and conclude that the most salient concerns to be addressed include:

- Workforce preparation/education pipeline “throughput” is being blocked by high school completion rates and higher education graduation rates. In addition, projections suggest that we will simply need more people moving through the pipeline achieving at higher rates of achievement if we are to begin meeting business demand.
- We can create stronger supply/demand matches by focusing attention on specific skill demands identified by the job market and developing “fast track” approaches to meeting those immediate (1-2 years) and near-term (3-5 years) demands.
- The metro area continues to have a spatial mismatch between available skilled labor supply and demand – particularly as it impacts metro area commuters. This may be addressed through short-term transit services and/or longer-term economic development and land use planning.
- Disparities by race and ethnicity in education attainment, earnings, and productivity create broader weaknesses in the regional economy and seriously limit our ability to meet current and short-term business demand for skilled labor.
- There are significant opportunities to engage more foreign-born immigrants, welfare participants, ex-offenders, people with disabilities, and others who can fill available jobs with appropriate education, training, and support. There are tangible service delivery issues associated with tapping these populations; and, in some cases, important policy conflicts which need to be resolved if we are to consider the broadest possible range of people in the potential workforce supply.

Based on these most salient issues, and the forgoing analysis, the GMWC proposes to pursue the following steps during 2007 and beyond:

1. The education/preparation “pipeline” must be strengthened and broadened

The aging of the existing workforce, a growing immigrant population, and academic performance disparities along ethnic and racial represent opportunities to strengthen the workforce preparation pipeline. These specific areas represent “blockages” in the flow of prepared workers for Twin Cities’ economic growth. Further, K-12 programming, higher education, immigration issues, welfare programs, and services for people with disabilities should not be treated as separate policy arenas. Each contributes significantly to the future labor supply for the Twin Cities and should be considered in that light. To that end, the GMWC suggests that political and civic leaders from the metro area focus energy between 2007 and 2010 to:

- Ensure that all children are prepared for K-12 education

- Eliminate significant disparities in educational performance among K-12 students and benchmark performance to other advanced countries
- Remove barriers for Twin Cities residents to pursue continuous life long education and retraining within the Twin Cities (addressing financial aid, English language training, family support needs, and educational access issues)⁶⁹

2. Provide high quality, timely career information on high growth, high demand industries and occupations.

The data show specific growth opportunities in eight high-demand occupational clusters and also the “distinguishing industries” in the region. The GMWC proposes to focus delivery of high quality, timely career information for jobseekers and job-changers to pursue high-demand occupations and career paths in the Twin Cities’ “distinguishing industries”. In many cases, efforts are already underway in manufacturing, printing, health care, and other fields. The GMWC will support existing efforts and serve as a convener/facilitator to spur new efforts in needed occupational groups/industries.

Further, as multiple individual metro area workforce councils choose to focus education and training resources on specific high-growth, high-demand occupations, the GMWC will work to create metro-wide approaches to promoting, training, and filling current vacancies in selected occupations and industries.

3. Continue to build an effective, long-term “advocacy voice” for regional economic stability and growth

Working closely with other area leaders in business, labor, education, and among civic institutions, the GMWC sees opportunity to create a metropolitan agenda that will pursue local, state, and federal financial and policy support for key issues facing the metro area beginning with transportation and future economic growth patterns. Recent efforts by other metropolitan leaders have advanced the basic agenda regarding transportation. However, in addition to basic traffic congestion and better public transit options, there is a critical need to improve the connection between the supply of workers throughout the metro area and the location of job centers. Leadership is required to focus workforce and economic development resources to address issues of spatial mismatch. The GMWC will advance this by serving as a convener/facilitator among local economic development practitioners and workforce development providers who can initiate specific projects that address spatial mismatch and/or improve communications and planning efforts to avoid growth patterns that exacerbate spatial mismatch. The GMWC wishes to create an expectation among business leaders, workforce and economic development practitioners, and elected officials for a regular flow of workforce/labor market information that is contextualized and actionable.

A BEGINNING ACTION AGENDA

Strategy	Action / Activity	Other potential partners (starting list)	Possible Local Workforce Councils Roles
Strengthen Education / Workforce Prep Pipeline	Increase investments in early childhood learning	<ul style="list-style-type: none"> • MN Early Learning Fund • MN School Readiness Business Advisory Council • Ready4K • MN Child Care Referral Network 	Advocate support
	Support / expand efforts to strengthen K-12 completion rates specifically for low-income and lower-performing student groups including New Americans	<ul style="list-style-type: none"> • Local School Boards • Achieve! Minneapolis • Citizens League • MN State Colleges and Universities • English Language Learner service providers 	Advocate support
	Support / expand school-age workforce-focused services, specifically summer jobs programs	<ul style="list-style-type: none"> • Achieve! Minneapolis 	Lead efforts to consider a metro-wide summer jobs initiative?
	Educate future workers about career assessment and planning	<ul style="list-style-type: none"> • iSeek Solutions • Adult Basic Education partners • MN Office of Higher Ed • MN State Colleges and Universities 	
	Support more affordable and accessible educ for low-income/low-skilled workers	<ul style="list-style-type: none"> • Power of You program • MN State Colleges and Universities • University of MN • MN Campus Compact 	Engage in a fundraising effort?

Strategy	Action / Activity	Other potential partners (starting list)	Possible Local Workforce Councils Roles
Fulfill High Growth-High Demand Occupations	Manufacturing	<ul style="list-style-type: none"> • MN Mfg Alliance • MN Precision Manufacturers Assn • MN Dept of Employment and Economic Dvlpt • MN State Colleges and Universities • University of MN 	ESP (including U of M, private colleges, and Adult Basic Education Partners) to convene partnerships and lead future grant-funded opportunities
	Nursing/Health Care	<ul style="list-style-type: none"> • MN Hospitals Assn • Healthcare Education Industry Partnership • MN Dept of Employment and Economic Dvlpt • MN State Colleges and Universities • University of MN 	
	Transportation	<ul style="list-style-type: none"> • Industry and Business Partners • MN State Colleges and Universities • University of MN 	
	Security	<ul style="list-style-type: none"> • Industry and Business Partners • MN State Colleges and Universities • University of MN 	
	Other sectors/ occupations	<ul style="list-style-type: none"> • Economic Dvlpt Assn of MN • Governor’s Workforce Development Council • Industry and Business Partners • MN Job Skills Partnership Board • MN Dept of Employment and Economic Dvlpt • MN State Colleges and Universities • University of MN 	GMWC will convene and facilitate “fast track” efforts among key stakeholders to address one or two acute occupational shortages facing the metro area
Build Regional Advocacy Voice	Promote regular flow of information and analysis on regional economic trends	<ul style="list-style-type: none"> • Great North Alliance • ‘Accelerate Business Today’ Chamber Consortium • Other public and private businesses 	Lead efforts to bring sources and/or reporting opportunities together and build awareness among civic and business leaders
	Promote regular flow of information and analysis on regional disparities and inequities	<ul style="list-style-type: none"> • Itasca Group • Wilder Foundation • Great North Alliance 	
	Identify legislative champions for workforce development concerns	<ul style="list-style-type: none"> • Business leaders • Elected officials • State agencies • Political leaders • Other workforce stakeholders 	GMWC partner with other organizations to purposefully cultivate relationships with selected elected officials

ENDNOTES

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- ¹⁴ Citing 2003 data from Texas Transportation Institute, Texas A&M University. *2005 Urban Mobility Study*, May 2005.
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- ¹⁸ Sohmer, Rebecca. "Mind the Gap: Disparities and Competitiveness in the Twin Cities," Brookings Institution Metropolitan Policy Program, October 2005.
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- ²² According to the Social Security Administration the Normal Retirement Age (NRA) for receiving full benefits varies between 65 and 67 years of age, depending on year of birth.
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- ²⁶ Minnesota Minority Education Partnership. *State of Students of Color*, 2006. Data are from the Minnesota Department of Education.
- ²⁷ Ibid.
- ²⁸ Minnesota Office of Higher Education. A smaller number, 11%, take the SAT college entrance exam.
- ²⁹ Ibid.
- ³⁰ Minnesota Office of Higher Education. *Insight*, March 2006.
- ³¹ Wilder Research 2006 Metro Trend Watch available at: <http://www.metrotrendwatch.org/content.php?sectionID=2>
- ³² Minnesota Office of Higher Education. Race/ethnicity statistics are calculated based on the number of students whose race/ethnicity is known.
- ³³ Ibid.
- ³⁴ Ibid.
- ³⁵ Minnesota Office of Higher Education.
- ³⁶ Minnesota Private College Research Foundation. "Projections of High School Graduates: Implications for Baccalaureate Degree Production and Workforce Growth." April 2004.
- ³⁷ Ibid.
- ³⁸ During the 2003-04 academic year, Minnesota post-secondary institutions awarded 14,896 diplomas and certificates below the baccalaureate level and 14,320 associate degrees for a combined total of 29,216 as compared to 29,986 bachelor's degrees
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- ⁶⁴ National Research Council, National Academy of Sciences. The New Americans: Economic, Demographic, and Fiscal Effects of Immigration. Washington, DC: National Academy Press, 1997.
- ⁶⁵ Numerically, more small sized firms indicated they participate in global activities than large firms.
- ⁶⁶ DEED and Minnesota Technology Inc., April 2004 Business Survey.
- ⁶⁷ Farrell, Diana and Jaeson Rosenfeld. "US Offshoring: Rethinking the Response," McKinsey Global Institute, December 2005.
- ⁶⁸ Ibid.
- ⁶⁹ GMWC members noted that, in many cases, access to services is hampered simply by lack of available, timely, and easy to understand information for service seekers. Resources such as the United Way beehive (<http://www.thebeehive.org/Templates/National/Default.aspx?PageId=1&Local=1.55.56.57&Lang=1>) may be helpful as a first step in helping individuals and families access needed services and supports.