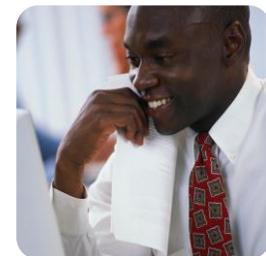
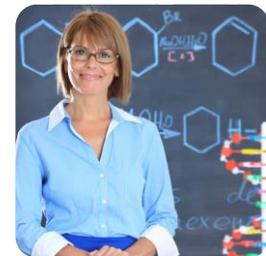


The Time For Talent

Why the development, recruitment, and retention
of talent is key to a prosperous future for Minnesota



MN STATE DEMOGRAPHIC CENTER
MARCH 2013



The Time For Talent



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Purpose

According to Minnesota State Statute 4A.02,^a the State Demographer is to issue an annual report to the legislature containing an analysis of the demographic implications of the annual population study and population projections, among other duties.

In February 2013, the MN State Demographic Center re-released its 2012 long-term population projections for the state, including anticipated counts for the male, female, and total population for each single year of age and each individual year through 2060.^b Because no new data inputs existed, the projections through 2060 were unchanged. Consequently, this required report focuses not upon population shifts by age, gender and geography, but rather a related and critical population topic — the structure, preparedness and dynamism of Minnesota’s current and future labor force — to fulfill the expectations of the statute.

^a <https://www.revisor.mn.gov/statutes/?id=4A.02>

^b <http://www.demography.state.mn.us/resource.html?id=33109>

Executive Summary

The economy in Minnesota and around the world is rapidly shifting. “Talent” – higher-order skills and education – is increasingly the key that allows workers to unlock job prospects, higher earnings, greater net worth and a host of affiliated benefits. Several different employment projections forecast a percentage point increase in the total jobs requiring some post-secondary education by the close of the decade, with estimates of roughly 65 to 70 percent of *new* jobs requiring this. Talented workers are essential to Minnesota’s current and future economic growth, especially in light of changing demographic trends — including a wave of Baby Boomer retirements, slower labor force growth, and an increasingly diverse workforce.

In this report we define and examine talent in two ways: “Degreed Talent,” those age 25 or older who possess a bachelor’s degree or higher educational attainment, and “Creative Talent,” those workers who are entrepreneurs, engaged in highly creative occupations, and/or working in any of the STEM (science, technology, engineering, math) fields.

Empirical research suggests that these two types of talent (which may overlap in any single worker) are associated with greater economic strength and growth within communities and states. Therefore, how well Minnesota does in the development, recruitment, and retention of these talented workers is of concern now and in the decades to come.

Using these definitions, we find that:

- Relative to other states, the Minnesota-born workforce is more likely to remain in Minnesota (or return after being away). Our state ranks 4th in the nation in the retention of Degreed Talent, with 59 percent of workers with a bachelor’s or higher degree (BA+) who were born in Minnesota still working in this state. Only Texas, California and North Carolina retain more of their highly educated native-born residents.
- Minnesota is attracting and retaining a large share of young talent, especially outperforming its Midwestern neighbors. Young adults with at least a bachelor’s degree are a key demographic for future growth. Minnesota ranks 6th highest among states, and the Twin Cities ranks 5th highest among the 25 largest metropolitan areas, in the share of 25- to 34-year-olds with a BA+.
- Our Creative Talent tends to work in their home state as well, with 63 percent still working in Minnesota, making the state 6th in the nation in retention of its native-born Creative Talent. This bodes well for our state’s economy, as the presence of entrepreneurs is associated with spurring job creation. Additionally, STEM workers are highly sought after, with prospects for continued high demand and high salaries.

- While not the case a decade ago, in recent years, Minnesota has been a net loser of talented workers domestically. Between 2007 and 2010, Minnesota lost an average of about 2,000 more talented individuals each year to other states than it gained from them.
- However, international talent flows to Minnesota have increased recently. During 2007-2010, an annual average of about 4,300 Degreed Talent workers and 2,100 Creative Talent workers arrived in Minnesota each year from abroad. These figures are up by about 1,000 workers for each category from a decade prior. This infusion of international talent has offset domestic losses and allowed Minnesota to experience overall net gains in talented workers.

Yet, the increased talent coming from abroad raises some tough questions about Minnesota's own talent pipeline — i.e., whether those residents born here are being equipped with the skills and abilities necessary to compete in the emerging economy. Related to this question, we find that:

- While some immigrants to our state have low educational attainment, as a group Minnesota-born persons are *less* likely to have any college education than our state's foreign-born residents.
- In addition, current residents of our state who were born anywhere outside of Minnesota are twice as likely or more to possess a graduate or professional degree as those Minnesotans born and raised here. Therefore, our imported talent, both U.S.- and foreign-born, is raising our educational profile.
- Compared to 106 major U.S. metropolitan areas, the Minneapolis-St. Paul 13-county metro area was 16th highest in the volume of H1-B visas sought during 2010-11. Among each 1,000 workers in the region, 2.4 highly skilled immigrant workers were necessary to fill shortages.

Furthermore, disparities in talent development observed among Minnesota's populations of color are especially concerning, with elevated high school drop-out rates and limited enrolled in post-secondary education. However, we also find that the poor employment outcomes observed among certain racial groups in Minnesota cannot be entirely explained by differences in education:

- When holding education levels constant, unemployment is still sharply higher among certain racial groups, especially Black and American Indian residents. Additional forces (such as fewer job networks, less accessible jobs, subtle or structural racism) and/or characteristics (such as skill differentials, disability, language limitations, or criminal records) must be at play in the labor force to produce such differing outcomes by individuals with similar educational profiles.

Failing to better develop the talent of all residents is squandering needed human capital. Some of the poorest performing groups are also the fastest growing among Minnesota's population:

- Between 1990 and 2010, the number of Asian, Black and Hispanic residents in Minnesota tripled, while the non-Hispanic White population grew by a modest 8.5 percent. Between 2010 and 2030, populations of color will grow by more than 570,000 residents, while the non-Hispanic White population will gain less than half that number.

Because our demographics are changing, it is imperative that we continue to improve the opportunities for all groups to acquire talent and to demonstrate and benefit from that talent by promoting evenhandedness in the labor market. Ultimately, Minnesota's future economic standing and quality-of-life depends on its attention to developing, recruiting, and retaining talent in the years to come. A focus upon skill acquisition and degree completion, aligning talent to the demands of the modern economy, and creating opportunity for all groups will position us well in the decades to come.

Introduction

Talent is a term that invariably arises in discussions of Minnesota's economy, both present and future. In general, talent refers to the package of abilities — earned through education or other avenues — that are in demand in the labor market. Talent increasingly requires higher-order and knowledge-based skills that require longer time horizons for workers to acquire. Technological, scientific and other advances mean that talent looks a lot different than it did just a generation ago. Intuitively, we know that we need talent, as individuals and in communities across the state, to prosper.

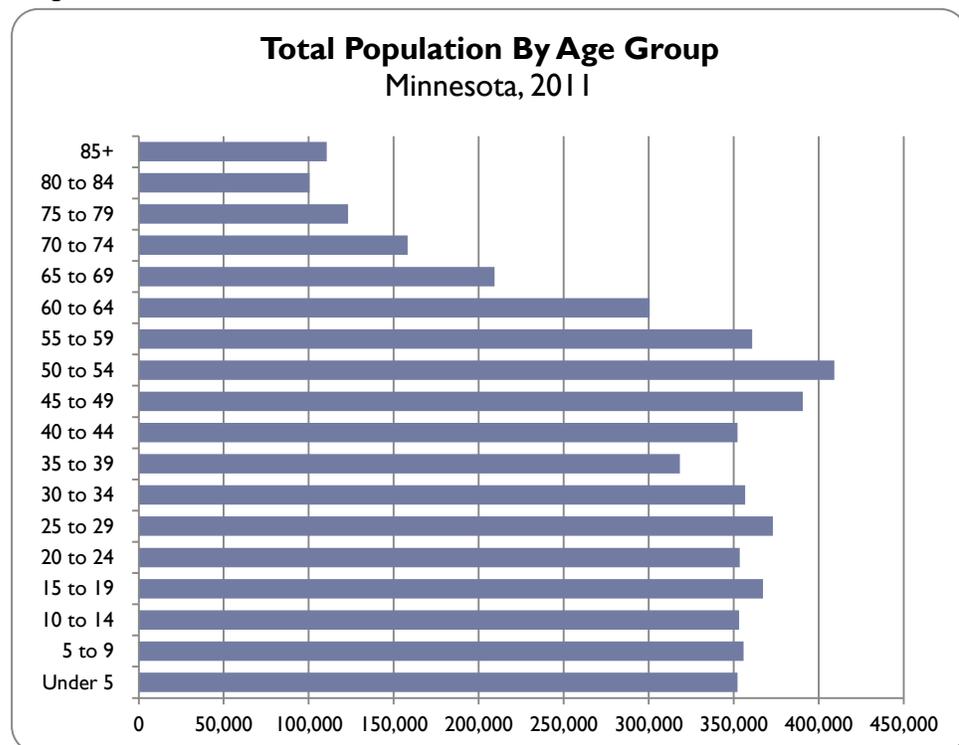
But just how talented *is* the state of Minnesota and its workers, relative to other places? How well do we develop, maintain, and recruit our talent? What talent will the emerging workforce require, and how well positioned are we to supply it? How gamely do we compete in a global marketplace for talented individuals? Finally, how do demographic trends in Minnesota affect these economic and workforce queries? These are the questions explored and answered, in part, by this report.

I. The Aging of Talent

Minnesota is just beginning to experience a profound demographic shift due to population aging, as the Baby Boomer^c generation moves upwards through the age structure. The Baby Boomers, who officially began turning 65 in 2011, are considerably larger than any generation that preceded them, and somewhat larger than all of the generations who have followed to date. In fact, with more than 400,000 members, the 50- to 54-year-olds were the largest 5-year age cohort in 2011. One is more likely to encounter someone in their early 50s in Minnesota than someone of any other age (see Figure 1).

As the Boomers continue to move through their lives, they will continue to pull the median age higher in Minnesota. In the span of the last decade, the median age in our state rose two years, from 35 to 37 years. Minnesota is relatively similar to the U.S. as a whole, which is aging from coast to coast (although with some variation). In the decade of the 2010s, nearly as many people in Minnesota and the United States will turn age 65 as in the previous four decades combined.

Figure 1



Source: U.S. Census Bureau, 2011 Population Estimates.

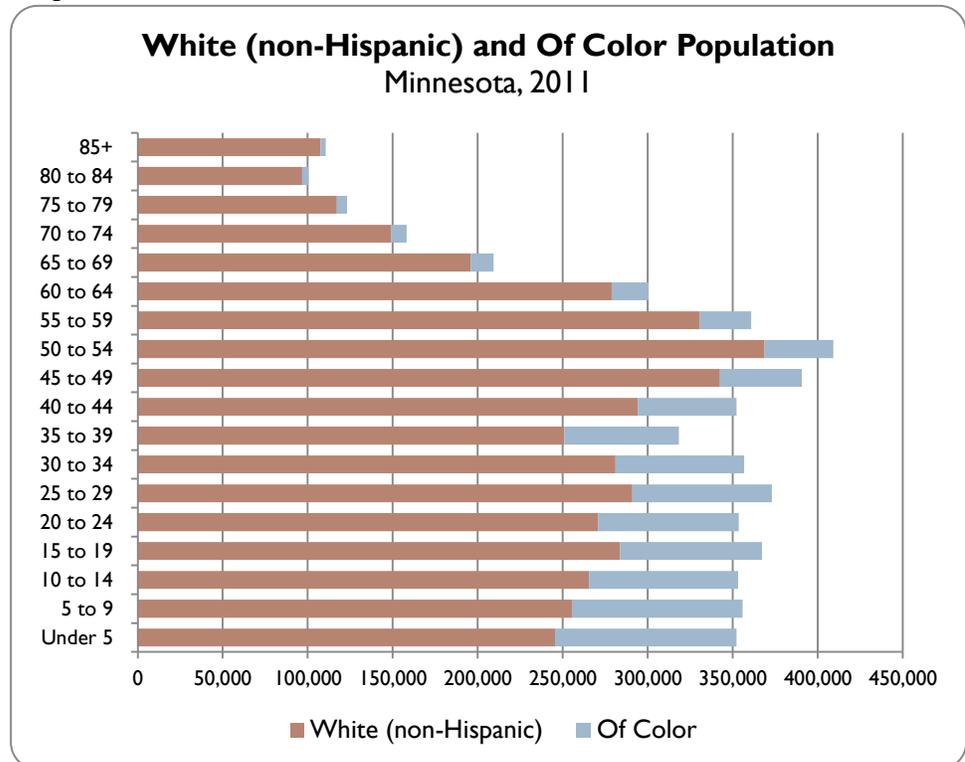
As these older Minnesotans increasingly move out of their prime working years, Minnesota's businesses, nonprofit organizations, and public sector will experience the loss of untold years of wisdom, leadership and institutional knowledge — and the sheer numbers of workers exiting in this group in quick succession will make the loss more acute. However, this will also create many replacement openings — job opportunities for younger people, unemployed workers, and others with the appropriate skills to enter or move up into positions available due to the spike in retirements. These widespread

^c Defined as those born in 1946 through 1964.

retirements may encourage talent development (as scarcer talent becomes more valuable), and may thus directly and indirectly lower unemployment.

As these older workers exit the labor force, it will look different in other ways as well. It will be more diverse, as younger Minnesotans are far more likely to be persons of color (see Figure 2). The labor force will also be growing at a much slower rate than our state has experienced in the later decades of the 20th century.

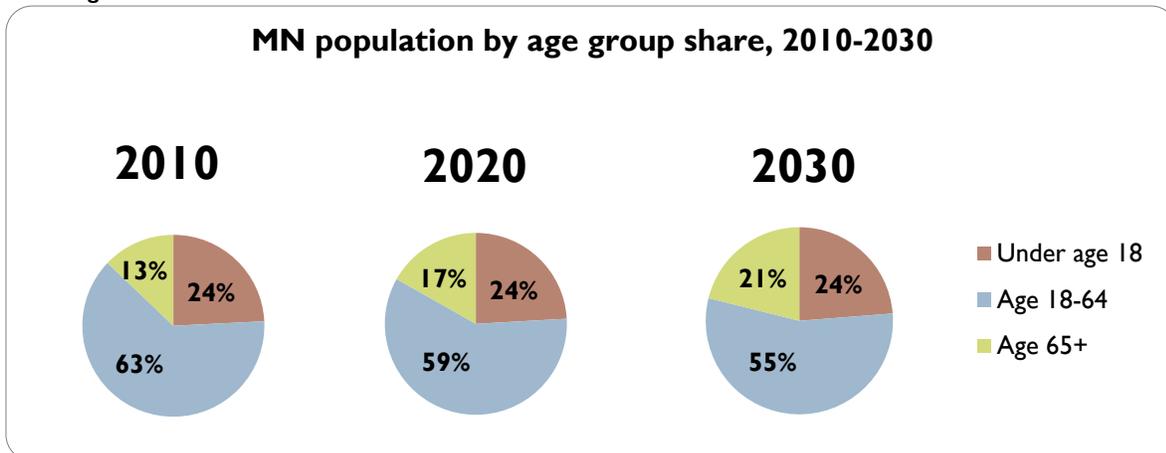
Figure 2



Source: U.S. Census Bureau, 2011 Population Estimates.

Our office’s updated population projections indicate that Minnesota’s population will likely top 6 million during 2025, and exceed the 7 million mark during 2052.¹ During the 2021 year, the 65 and over population in Minnesota is anticipated to eclipse the school-age (5-17) population for the first time in our state’s history. In the 2010 census, we learned that 13 percent of our state’s population is an older adult, age 65 or above. By 2020, that share will rise to 17 percent, and by 2030, to 21% (see Figure 3). Meanwhile, the share of children under 18 will stay about the same in the coming decades. The relative size of the group in between — the 18- to 64-year-olds — will shrink as the share age 65+ grows.

Figure 3

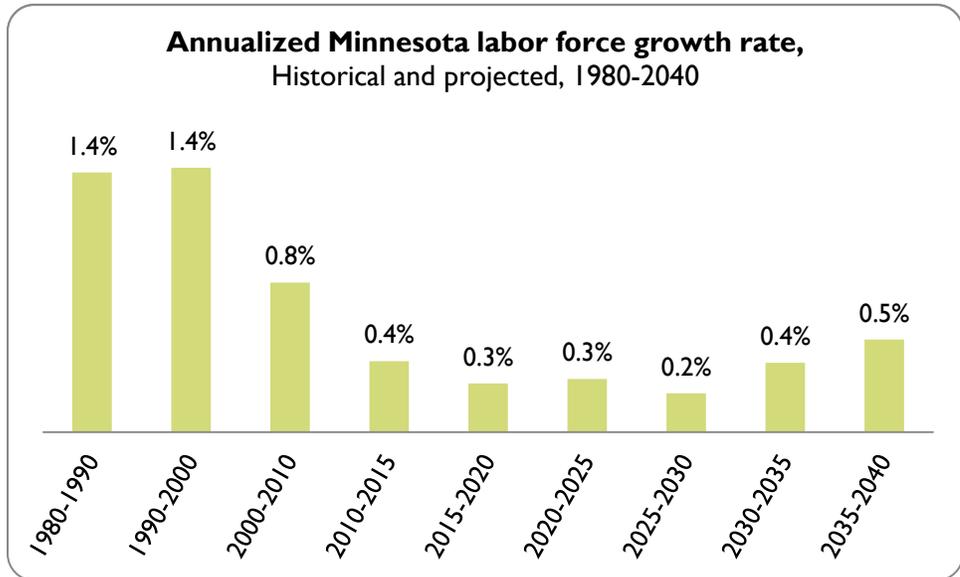


Source: MN State Demographic Center projections. Note: As of July 1.

In the past decade, Minnesota's economy has benefited from relatively robust growth in its labor force: the number of Minnesotans working or seeking work. The size of our labor force is a key component — coupled with productivity — in our state's ability to generate economic output. However, by the 2020s, we anticipate that Minnesota's labor force growth rate will be at record low levels, as these aging trends continue. Already our state's labor force growth has decelerated to less than half a percent per year, and it is not expected to experience growth at even that rate until potentially 2035 (see Figure 4).² This stands in sharp contrast to the 1980s and 1990s, during which the labor force swelled by an annual average of 1.4 percent.

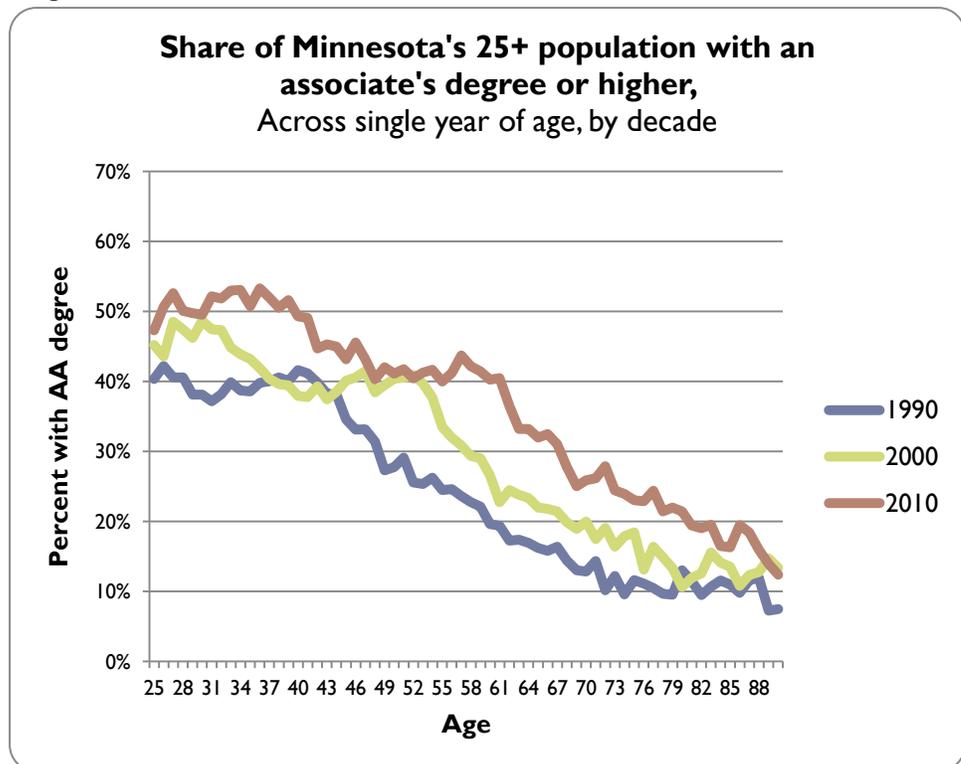
In the near term, total hours worked in our state's economy are expected to slow even more, as additional older workers shift from full-time to part-time jobs.³ In the long run, the share of Minnesota's population age 16 and above that is participating in the labor force is expected to fall to 63 percent by 2035, down 8 percentage points from its peak in 2000.

Figure 4



Source: MN State Demographic Center calculations and projections. Note: Projections have been updated following the 2010 census and incorporate post-recession data.

Figure 5



Source: U.S. Census Bureau, decennial census; MN State Demographic Center analysis of IPUMS.

When we examine the course of recent history, we do see our state making gains over the past three decades in the education level of the population as a whole. Figure 5 shows that for nearly every age group, a higher share of people have an associate's degree or more education than those in the same group a decade earlier. In this regard, we are headed in the right direction. However, we might not be headed in the right direction *fast* enough to offset a slowing labor force and an accelerating need for highly skilled workers competing in a global marketplace for talent. All of these changes underscore the need for talent to fuel the emerging economy.

2. The Case For Talent

Our economy is changing. More positions depend upon higher skill levels, increasing use of technology, and higher levels of human capital. Even many entry-level positions require advanced computer skills that were unimaginable a generation prior. At a macro-level the *amount* of talent (number of workers who possess it), *utilization* of talent (labor force participation), and *alignment* of talent (when skills respond to the demand in the labor force) each affect productivity and, by extension, our economic output. Within businesses and organizations, there is a continued focus on cultivating, recruiting and retaining talented people.

Talent is central to economic growth and competitiveness in Minnesota, and its importance will only grow in the coming years.

The current global economic landscape rewards knowledge-driven processes and products. As a result of institutional and technological changes, workers can operate from nearly anywhere, and business activity is increasingly mobile. While this poses a threat to Minnesota's knowledge-intensive jobs, it also presents an opportunity to develop, retain and attract the talent — and by extension — the jobs that will position our state well for future economic growth.

Talent shortages today

Talent mismatches are a key feature of this discussion. While some skills may be personally enriching, not all types of skills are equally valued in the labor market. Well-developed talent may still be underutilized, if there is a misalignment between the skills required by employers and the skills held by members of the workforce, among other reasons. There is reason to think that these misalignments already exist.

According to a 2012 Manpower survey, one in three employers worldwide could not find the talent they needed to fill key vacancies within their firms or organizations.⁴ In the U.S., the percentage of employers who reported problems finding talented workers increased at an alarming rate since 2010. Fifty-two percent of U.S. employers reported difficulties filling jobs due to lack of available talent in 2011, as well as 49% in 2012, up from just 14% in 2010.

In a 2010 speech, Federal Reserve Bank of Minneapolis President Narayana Kocherlakota speculated that as much as 3 percentage points of the nation's unemployment rate may result from "mismatches" both between the skills of

Talent leads the way in the 'New Normal'

Organizations are [now] operating in the "new normal," where the economic pressures of the last few years have forced them to do more with less, and they've discovered that they can accomplish amazing things despite reduced resources—as long as they have the right people in place.

Talent is becoming the key competitive differentiator, and countries and companies with access to the right talent are positioning themselves to succeed in the rapidly changing world of work.

-Manpower Group, 2011 Talent Shortage Survey Results

available workers and the needs of employers with vacancies, and of geographic and demographic factors.⁵

There is local evidence that a skills gap exists, with some Minnesota employers reporting continued difficulty filling specialized jobs because of few to no applicants. A 2011 Minnesota Department of Employment and Economic Development (DEED) survey of Minnesota manufacturing businesses found that 47% of respondents had positions that were going unfilled due to lack of qualified applicants.⁶

In fall 2012, DEED conducted in-depth interviews with over 200 Minnesota employers in key industries regarding more than 1,500 job vacancies, and found select evidence of skills gap challenges among local employers. Among all “difficult to fill” vacancies, about 33% were deemed the result of skills mismatches alone, while 54% were considered challenging due to skills mismatches in concert with unattractive wages, hours, and/or worksite locations.⁷ The findings suggests that some job vacancies may be more readily filled by employer corrections (wage adjustments, more on-the-job training), while others may not be resolved unless skill-related supply issues are addressed, particularly in certain occupations such as machinists. Notably, vacancies resulting from pure skills mismatches were equally common in the Twin Cities metro as in Greater Minnesota.

The volume and pace of recent applications for H-1B visas, reflecting hiring demand for immigrant workers in specialty occupations, also underscore the need for supplying additional workers with skill sets in certain occupational clusters. During 2012, the Brookings Institution reported that U.S. employers reached the nation’s overall cap on the H-1B visas in just 10 weeks’ time — three times faster than during 2011.⁸

During 2010 and 2011, in the Minneapolis-St. Paul 13-county metropolitan statistical area alone, Minnesota employers requested an annual average of 4,199 H-1B visas to place foreign workers in highly skilled positions, making this region 16th highest in number of visas sought among 106 major metropolitan areas throughout the U.S.⁹ Put another way, of every 1,000 workers in our state’s largest metropolitan area, 2.4 immigrant workers were deemed necessary to fill skills shortages.

These immigrant workers were sought to fill highly specialized functions at major employers including the University of Minnesota, Deloitte Consulting LLP, Cummins Inc., Tata Consultancy Services Inc., and Wipro Limited, among others. Fully 81% of these H-1B visa requests were responding to

The Magnetism of Talent

Meaningful job opportunities go a long way to attract talented workers from outside of Minnesota. Nonetheless, several other factors affect a worker’s relocation decision. Past research has shown that workers whose occupations require creative thinking have strong preferences for various amenities that factor strongly into decisions where to live. Talented workers tend to value cultural and artistic amenities, openness, entrepreneurial contexts, and outdoor recreational opportunities found in both urban and rural settings.

Minnesota is richly endowed with natural and cultural amenities — from lakes to theaters and beyond — that are attractive to talented workers. Having a critical mass of talent — and creative talent in particular — contributes to our valuable arts and cultural context, which ensures that the state will be an attractive place for new talent to locate. In this way, talent itself plays a role in attracting and retaining future talent workers.

--McGranahan, Wojan and Lambert, *The rural growth trifecta: outdoor amenities, creative class and entrepreneurial context (2010)*; McGranahan and Wojan, *Recasting the Creative Class to Examine Growth Processes in Rural and Urban Counties (2007)*; Florida, *The Rise of the Creative Class (2002)* and *Cities and the Creative Class (2005)*.

Note: Florida’s earlier studies provide some evidence of these relationships, but more refined and robust methods by McGranahan et al. have further documented these findings.

worker shortages in “STEM” (science, technology, engineering, and mathematics) positions. Overwhelmingly, these visas requested individuals to fill computer occupations (2,785), as well as hundreds of engineers, and scores of health practitioners, financial and business specialists.

During 2012, the Minnesota Chamber of Commerce and local chambers worked in concert with Minnesota State Colleges and Universities (MnSCU), the Minnesota Department of Employment and Economic Development (DEED), and the Minnesota Initiative Foundations to conduct listening sessions in communities across Minnesota to better understand and respond to Minnesota’s skills gap.^d The “Workforce Assessment” initiative is engaging employers in developing precise projections for how many workers and what package of skills may be needed in nine key industries, so that the MnSCU system can be more responsive to local employment needs.

It goes without saying that a better alignment of available workers in the areas of employer demand will improve employment outcomes (from increased productivity to reduced unemployment and government expenditures). Furthermore, the brisk pace of visa requests points to the growing importance of developing and retaining skilled domestic workers in areas of current and projected need.

How much talent will we need?

Predicting future education and training is highly complex, and there remains a great deal of uncertainty in appreciating how technology will continue to evolve, and how global and political forces will affect our state’s economy.

An influential 2010 “Help Wanted” report¹⁰ from Georgetown University’s Center on Education and the Workforce estimated that by 2018 nearly 70% of Minnesota’s jobs (both new and replacement) would require some postsecondary education beyond high school — whether that be a postsecondary certificate, some college, an associate’s degree, or bachelor’s or higher degree. These projections indicated that Minnesota (along with North Dakota, Massachusetts, Colorado and the District of Columbia) will likely have the highest share of jobs requiring post-secondary education in 2018.

The Georgetown report used an “educational attainment” forecasting method — based upon the education levels typically possessed by workers in each occupation, according to the Current Population Survey. Georgetown researchers also accounted for “upskilling” (e.g., auto mechanics being increasingly likely to have postsecondary training, as vehicles become more

^d For more information, see: <http://www.mnscu.edu/business/workforceassessment/index.html>_Industry-specific employer responses from the listening sessions are available at “Employers Speak: Minnesota Workforce Needs,” at <http://www.iseek.org/careers/workforce>.

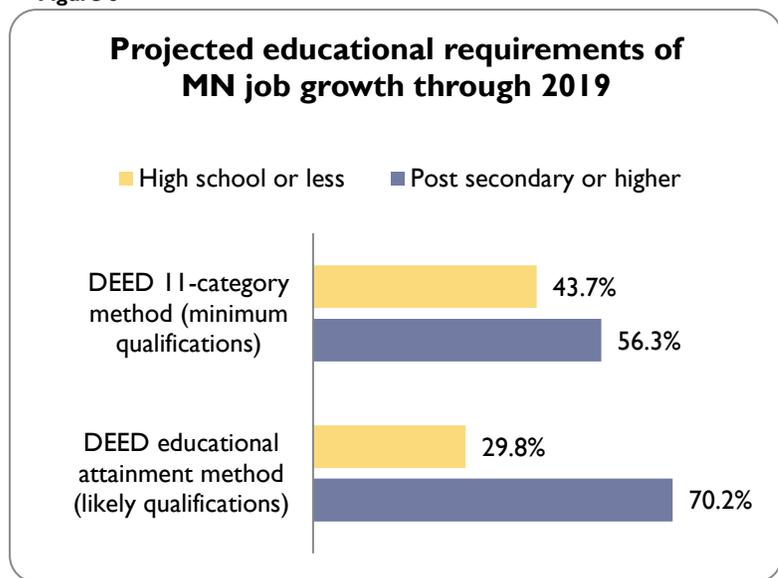
complex, despite filling the same occupation). However, some have criticized the Georgetown report as inflating the demand for higher education and failing to account for the effects of under-employment (for example, wait staff that hold college diplomas, despite the position calling for only short-term, on-the-job training).^e

The Minnesota Department of Economic Development (DEED) has created a similar employment forecast using an “educational attainment” method, although relying on the American Community Survey for inputs and not accounting for upskilling, as Georgetown did. DEED’s educational attainment-based employment projection, which extends its time horizon to 2019,^f finds that about 70 percent of Minnesota’s new jobs will likely require a worker with some post-secondary education beyond a high school diploma, but only 65 percent of all jobs (compared to the Georgetown figure of 70 percent).

An alternate, traditional forecast from the Minnesota Department of Employment and Economic Development (DEED), offers an even more modest picture of the future jobs that will require some post-secondary training by 2019 — roughly 56 percent of new jobs or 47 percent of all jobs.^g This “I I-category” method, which DEED has been preparing since the 1990s, is a modified version of projections produced by the U.S. Bureau of Labor Statistics, further customized for Minnesota’s workforce by allowing for multiple qualification levels per occupation (e.g., computer support occupations are split between bachelor’s degree, associate degree, and post-secondary certificate).

The difference between DEED’s two projections can be understood as outlining the minimum educational threshold needed to perform the job (I I-category method) versus the educational background of the workers who will actually fill the jobs

Figure 6



Source: MN Department of Employment and Economic Development

^e A lively exchange on this subject is presented in the New England Journal of Higher Education: <http://www.nebhe.org/thejournal/college-labor-shortages-in-2018/>; <http://www.nebhe.org/thejournal/the-real-education-crisis-are-35-of-all-college-degrees-in-new-england-unnecessary/>

^f DEED has released updated projections extending to 2020 since this report analysis was undertaken. See: http://www.positivelyminnesota.com/Data_Publications/Employment_Review_Magazine/July_2012_Edition/Minnesota_Job_Outlook_to_2020.aspx

^g Using the I I-category method, this forecast indicated that only 56.3% of job growth openings and 41.7% of net replacement openings would require some post-secondary education.

(educational attainment method), which can greatly exceed the minimum threshold if the market will bear it.

The I I-category method has been criticized for underestimating the future demand for postsecondary education. However, the two types of projections are complementary: they anticipate that, by the end of this decade, about 70 percent of the *new* jobs in Minnesota will be filled by a worker who has attained some post-secondary education, even though only 56 percent of these *new* jobs will likely require this as a minimum threshold (see Figure 6).

Applying this logic to *all* job openings that DEED anticipates Minnesota will experience by 2019, about 47 percent will likely require a post-secondary education (minimally), while 65 percent will likely be filled by those with these levels of education. This same divergence — minimum versus actual education within an occupation — is evident when applying the DEED methods to the 2009 employment figures. Only about 46 percent of the occupied positions in 2009 called for postsecondary education, yet 64 percent of positions were filled by those with at least postsecondary education.¹¹ When the supply of labor greatly exceeds the demand for jobs, as has been the case during the recent recession, these two figures are likely to diverge even more, as employers have the opportunity to hire better qualified individuals for lesser skilled positions. However, as labor becomes scarcer, as will happen due to demographic trends, workers will have greater power to secure positions more in line with their skills profile.

Despite the differences among the projections, what's important to note is that both sets of the DEED projections and the Georgetown report forecast a future where the talent demanded by Minnesota's available jobs will increase — by about 1 percentage point during the remainder of this decade, regardless of the initial estimate — when considering both new and replacement positions.^h Additional gains will likely be necessary in the decades to follow, due to demographic trends resulting in a tighter labor market and putting a higher premium on talent.

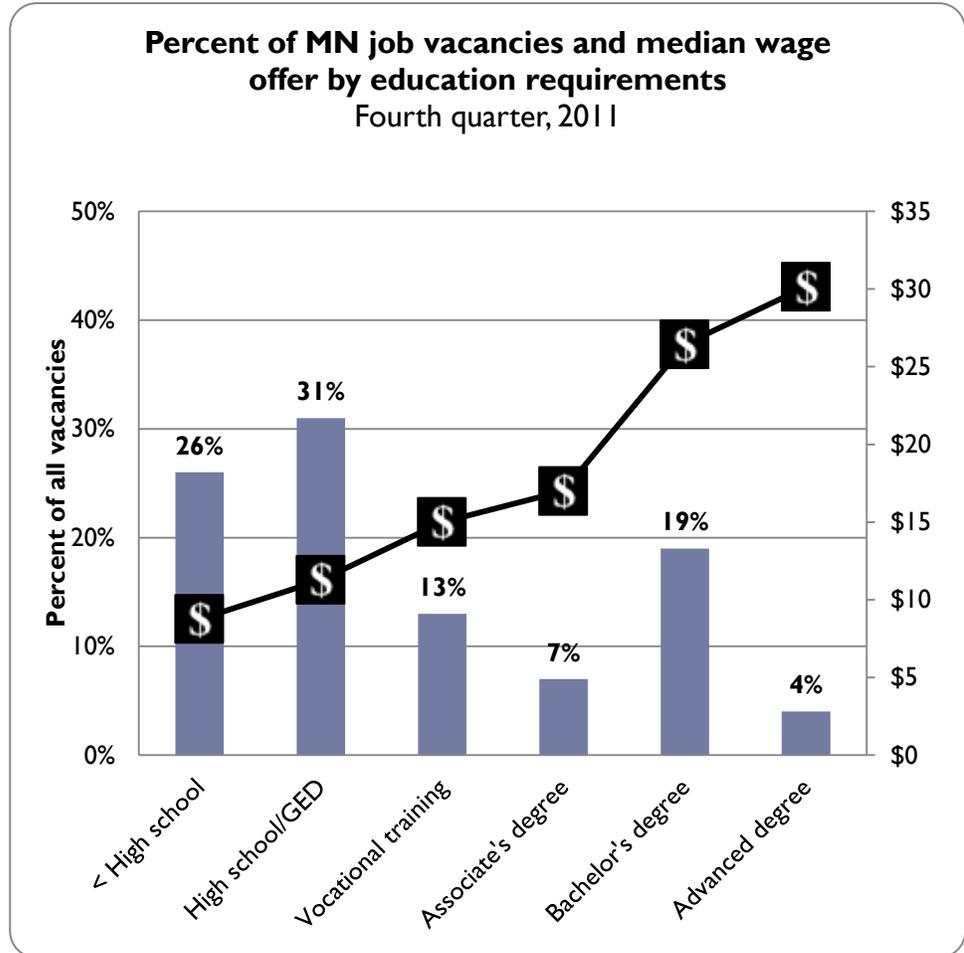
^h To further explore which jobs are expected to see high growth (and/or high pay), see <http://www.positivelyminnesota.com/apps/lmi/projections/Default.aspx>

However, recent data (Q4, 2011)ⁱ from Minnesota’s semi-annual Job Vacancy Survey, which asks employers about the skills required for current vacancies,

reveals that this new talent shortage is not yet upon us.¹² The survey revealed that about 30 percent of the roughly 50,000 available jobs required an associate’s degree or higher, with an additional 13 percent requiring post-secondary vocational training (see Figure 7). Yet, the majority of vacancies still required no education beyond a high school diploma or equivalent (with commensurately low median wages), and 42 percent of all job vacancies offered only part-time employment. The median wage for positions requiring a bachelor’s degree

was \$26 per hour, while advanced degree openings commanded a \$30 per hour median wage offer. Indeed talent is rewarded in the local marketplace with wage premiums; however, it is worth noting that these higher-paying, talent-centric jobs do not dominate the supply as of yet. In fact, DEED’s projections¹³ indicate significant growth through 2020 in both high-skill *and* low-skill occupations (such as biomedical engineers and home health aides), a growing bifurcation of sorts in the labor market. The current marketplace has a trajectory to meet the projections outlined above, but demographic, economic, and technological changes will accelerate this shift. Furthermore, there will still be numerous

Figure 7



Source: MN Department of Employment and Economic Development

ⁱ More recent Job Vacancy Survey data (Q4, 2012) have been published since this analysis was undertaken. While the number of vacancies have increased, their characteristics are similar to those discussed here, with the majority of openings requiring no education beyond a high school diploma or equivalent. See: http://www.positivelyminnesota.com/Data_Publications/Data/All_Data_Tools/Job_Vacancy_Survey_2.aspx

positions for low-skilled workers. However, these positions are not associated with economic growth and higher quality of life for the workers holding them in the same manner that this report finds that high-skilled jobs do.

Individual benefits of talent

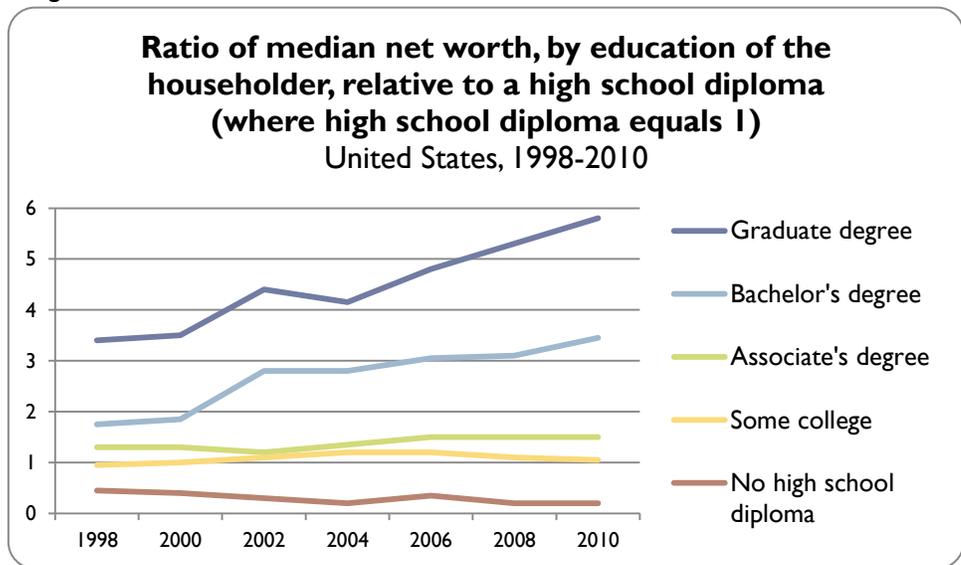
As noted above, workers with more talent are generally rewarded in the labor market with higher wages and salaries. At each additional stair-step of educational attainment, adults in Minnesota have higher median incomes, higher likelihood of possessing health insurance, greater participation in the labor force, and lower unemployment and poverty rates.¹⁴

Additional economic benefits accrue to better educated workers over time, such as higher median net worth. Household net worth (one’s assets minus liabilities) is one method to calculate wealth, a broader and more important measure of economic well-being than income. In times of economic hardship, such as unemployment or illness, financial assets can prevent households from falling into poverty. Assets also help to finance additional education, new businesses, and other ventures.

Nationally, higher levels of educational attainment are associated with higher and widening levels of net worth (see Figure 8). In 2010, those with a high school diploma

had a net worth of about \$42,000, while those with a graduate or professional degree had a median net worth of more than five times that, about \$246,000.¹⁵ In 2000, those with a bachelor’s degree had a median net worth nearly twice as large as those with a high school diploma. By 2010, this ratio had risen to almost three and half times as large. Those with a graduate or professional degree experienced even larger wealth gains relative to high school graduates over those years. In this way, the benefits of talent compound over time, and those without Degreed Talent suffer compounded disadvantage.

Figure 8



Source: U.S. Census Bureau, Survey of Income and Program Participation.

Costs of underdeveloped talent

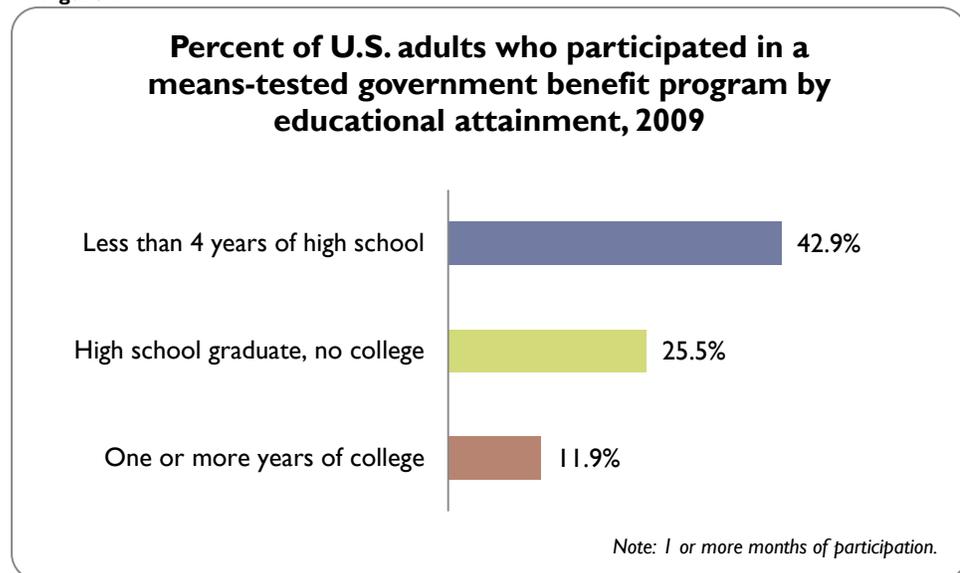
A high school dropout may be the clearest example of underdeveloped talent. Dropping out exacts a harsh “punishment” from the labor market. For most students, the payoff to graduating from high school is equivalent to winning the lottery. Researchers Belfield and Levin find high school dropout to be associated with a \$475,900 loss (present value) in lifetime earnings versus a high school graduate.¹⁶ Over the course of a lifetime the earnings differential between a high school graduate and those with a bachelor’s degree, is on average, \$1.74 million (in 2012 dollars).¹⁷ In 2010, the median earnings of Minnesota adults who didn’t graduate high school were less than \$20,000, below the poverty threshold for a family of four.¹⁸

In spite of this, 3,400 to 4,600 of Minnesota’s high school students have dropped out in each of the five past academic years.¹⁹ A similar sized group is “unknown,” likely containing additional dropouts. Undoubtedly, when these students drop out, many fail to appreciate the associated future costs. Similarly, when we do not better support students who are likely to dropout, we often fail to fully appreciate the future costs that will be borne by our state and our communities.

While acquiring education and skills is largely an individual pursuit, the costs and benefits associated with the resulting talent, or lack of talent, impact society at large. A reservoir of talented workers can attract jobs. Along with other factors related to business climate, site selection professionals consider the talent pool when establishing or moving firms.²⁰

Conversely, less Degreed Talent leads to lower tax revenues and greater public expenses. In general, individuals with less education are more likely to rely on public benefit programs. In 2009, 42 percent of American adults with less than a high school education received one or more months of benefits from a means-

Figure 9



Source: U.S. Census Bureau, Current Population Reports, “Dynamics of Economic Well-Being: Participation in Government Programs, 2004 to 2007 and 2009 Who Gets Assistance?” July 2012.

tested government program.^j In contrast, 26 percent of those adults with only a high school education participated in a program, as did 12 percent of those with one or more years of college education (see Figure 9).²¹ Put another way, graduating from high school resulted in cutting the rate of program participation for an additional 16 individuals in 100. Numerous studies and datasets have also associated low levels of education with increased likelihood of poor health, incarceration, unemployment, and decreased federal and state tax revenues. ^{22,}
²³

In light of this and projected rising state expenditures,²⁴ it is important to consider the budgetary implications of talent development for Minnesota. In short, talent pays. And failure to develop talent exacts a high price on individuals, communities and our economy.

^j Including Temporary Assistance for Needy Families, General Assistance, Supplemental Nutrition Assistance Program/Food Stamps, Supplemental Security Income, Medicaid or Housing Assistance

3. The Migration and Retention of Talent

In this report, we focus on talented workers — those individuals in the labor force with initiative, creativity, technical expertise, and problem-solving skills — the characteristics most in demand in the 21st century economy. Talented workers are those most likely to take the lead in developing new and better products and services that are well aligned with emerging needs.

Of course, talent is a decidedly subjective notion. In this section, we examine two aspects of talent: “Degreed Talent”— those with a bachelor’s degree or higher educational attainment — and “Creative Talent” — those whose occupations require that they exercise a great deal of innovation in the course of their everyday work. To identify “Creative Talent” occupations, we draw on past associations between the percentage of workers in creative occupations and regional economic growth.^{25, 26} Specifically, we have defined Creative Talent workers as (1) those working in a science, technology, engineering or mathematics (STEM) occupation, (2) those working in the “artful” economy (e.g. artists, musicians, advertisers, etc.) and (3) entrepreneurs, defined as those with business income that makes up 50 percent or more of their personal income, regardless of their occupation.^k

All occupations involve creativity to varying levels; all workers serve our economy in important ways. Yet making these generalizations is necessary to allow us to begin thinking strategically about the kinds of workers that we are training within the state and attracting — or failing to attract — from elsewhere.

Degreed Talent and Creative Talent categories can overlap in our analysis. For example, a physician possesses an advanced degree (a bachelor’s degree and a medical degree) and is also employed in a STEM field, and thus would be captured in both definitions of talent. However, Creative Talent may not necessarily be accounted in Degreed Talent, and vice versa. An immigrant entrepreneur who establishes and operates her own restaurant would be accounted for in our definition of Creative Talent, but may not hold a bachelor’s degree. Conversely, there are many workers who possess a bachelor’s degree who are employed in jobs not defined here as Creative Talent.

By the above definition of Creative Talent, 45 percent of Minnesota’s total Creative Talent was employed in a STEM occupation, 18 percent were in an

Out of the labor force, still in demand

When someone exits the workforce, his or her human capital is “lost.” It is impossible for the workforce to retain all of the human capital that has accumulated in a retiree. There are ways to retain some of it, however.

As a large share of our state’s workers retire, it would be wise to develop new pathways for these workers to continue using their talent, either informally or formally. Consulting, part-time, and volunteer opportunities for retirees may help mitigate growing skill mismatches, while providing mutual benefits (health and social benefits to retirees and gifts of knowledge and service to the people with whom they engage).

^k Please contact the MN State Demographic Center for a complete listing of occupational codes and methods used for the analysis.

artful occupation, and 34 percent were entrepreneurs in 2007-2010 (See Figure 10).

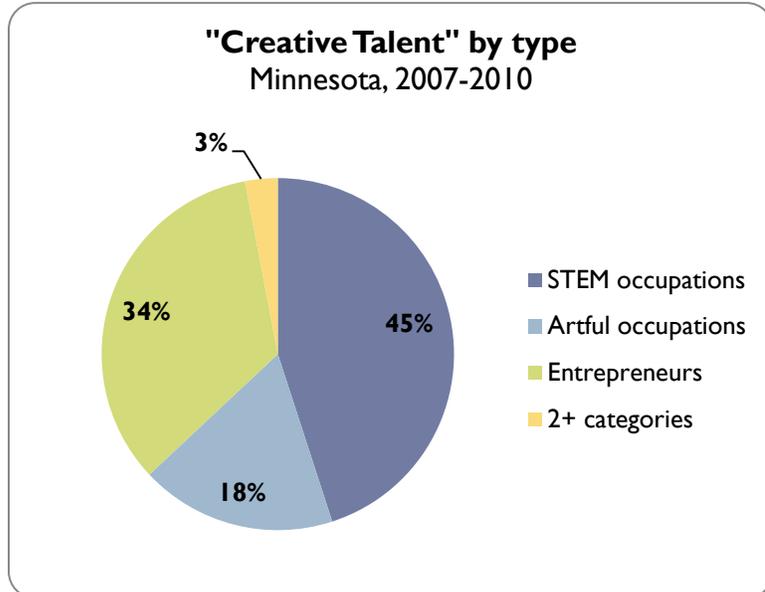
In 2010, 32 percent of Minnesota’s labor force held a bachelors degree, which was a 4 percentage point increase in Degreed Talent from 2000.

During 2007-2010, about 13 percent of Minnesota workers were represented by our Creative Talent category. Creative Talent as a share of the workforce, has declined by about one percentage point since 2000 (See Figure 11). However, this decline is due to fewer individuals in artful occupations during the last decade. Encouragingly, the number of entrepreneurs and STEM workers has actually increased in response to demand.

Minnesota’s labor force has a higher concentration of Degreed Talent than the nation at large. In 2007-2010, 31.8 percent of Minnesota’s labor force had a bachelor’s or higher degree, compared to a national rate of 29.1 percent. By this measure, Minnesota has the 11th highest concentration of educated workers in the nation among all states (see Figure 12).

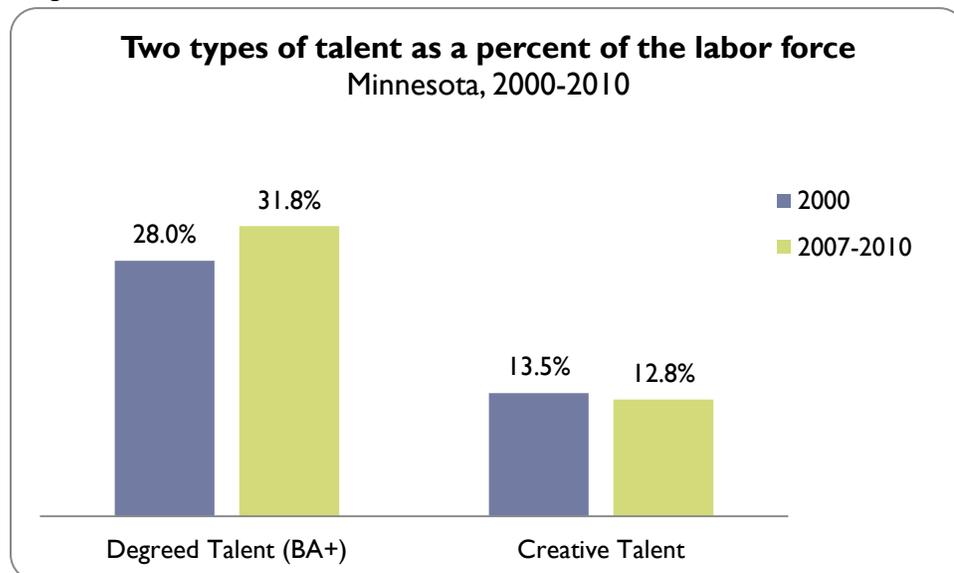
MN has a slightly higher presence of Creative Talent than the national average; (12.8 percent versus 12.3 percent nationally). In this category, Minnesota is ranked 15th highest

Figure 10



Source: MN State Demographic Center analysis of IPUMS version of U.S. Census Bureau, American Community Survey, pooled data from 2007-2010 samples.

Figure 11



Source: MN State Demographic Center analysis of IPUMS version of U.S. Census Bureau, 2000 decennial census and American Community Survey, pooled data from 2007-2010 samples.

among states.

In the concentration of Creative Talent, Minnesota ranks slightly higher than the U.S. overall. In Minnesota in 2007-2010, 12.8 percent of the labor force had Creative Talent, compared with 12.3% nationally. Our state ranks 14th in the nation in the percentage of labor force participants that is represented by Creative Talent (see Figure 13).

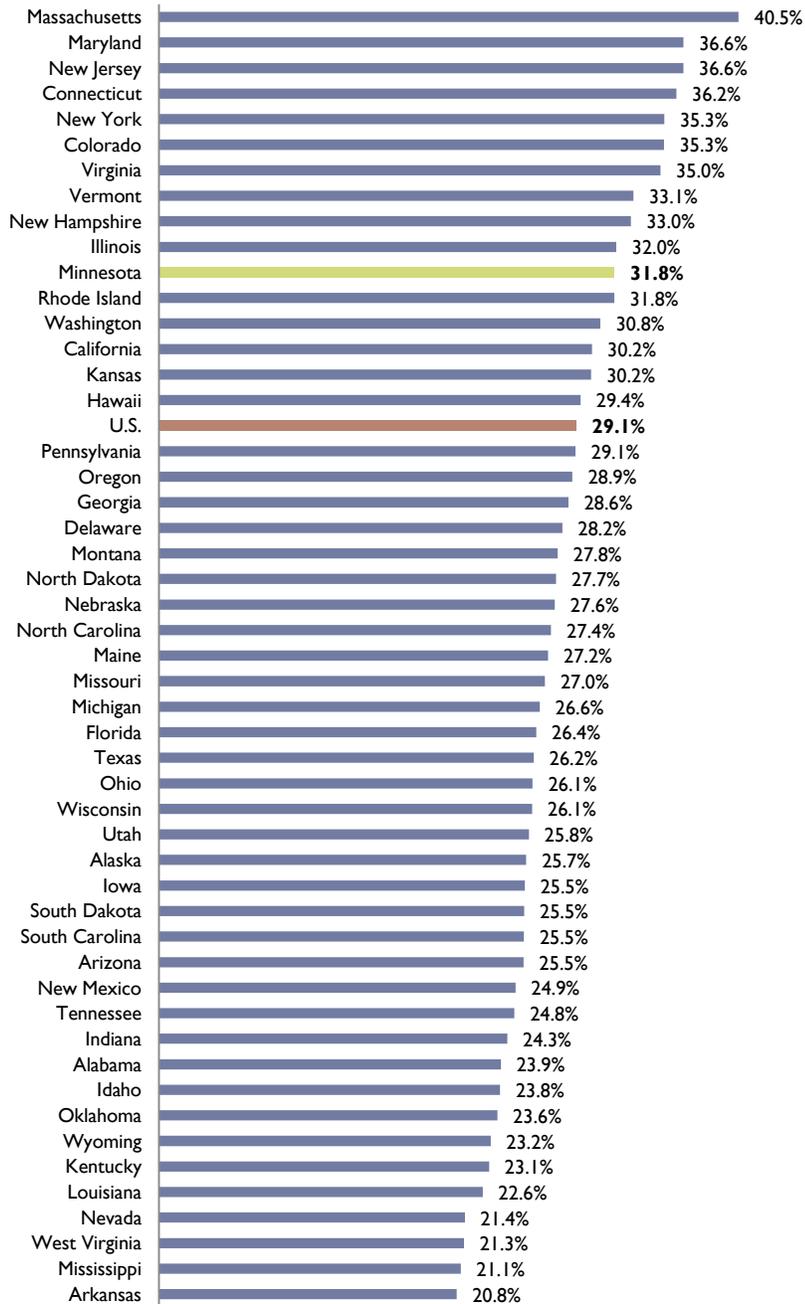
Today's homegrown talent

In 2010, more than one-third (36%) of all the adults age 25 or higher in Minnesota had no education beyond high school.²⁷ One might reasonably expect that this is due largely to our foreign-born population. While it is true that some immigrants (especially refugees) living in MN have lower educational attainment, as a group, Minnesota-born adults are actually more likely to have no education beyond high school than our immigrants.

At the other end of the education continuum, we

Figure 12

Degreed Talent: Percent of the labor force with a bachelor's degree or higher By state and U.S., 2007-2010

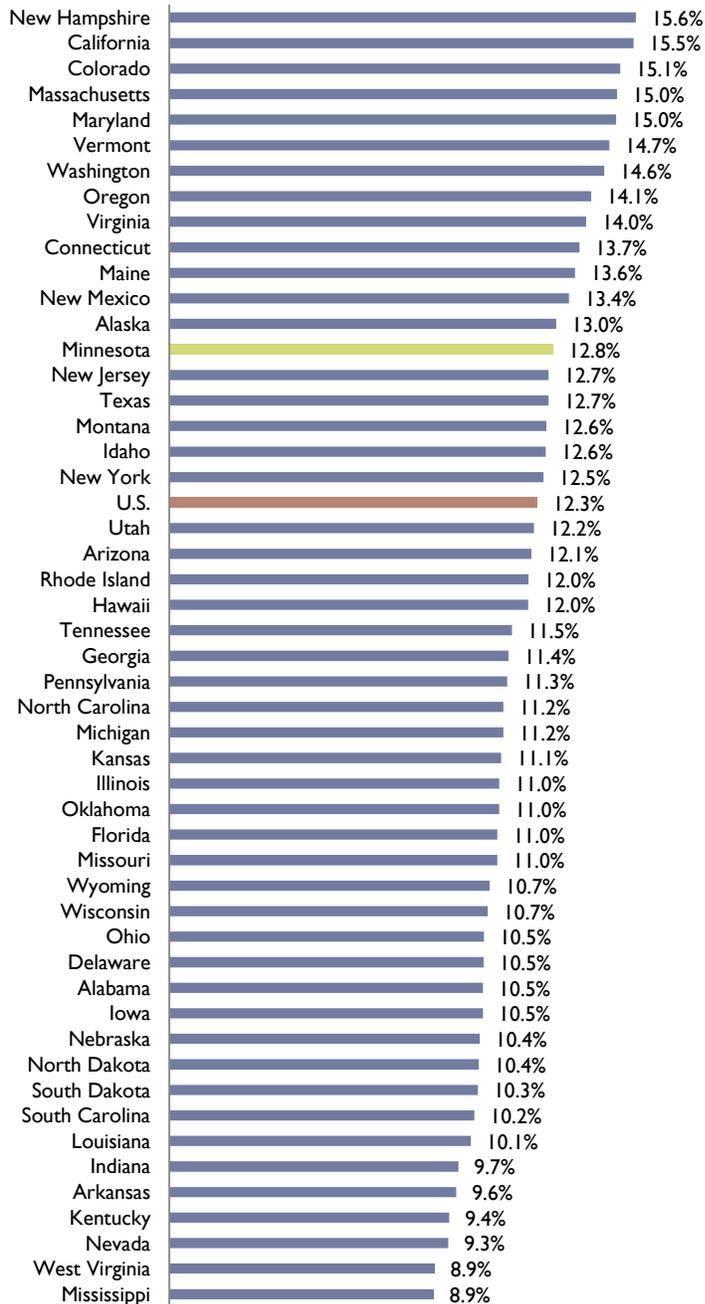


Source: MN State Demographic Center analysis of IPUMS.

find that 27 percent of Minnesota residents who were born in-state hold a bachelor's or higher degree. This is less than the share of U.S.-born residents living in Minnesota who were born in other states (43%) and the share of foreign-born residents living in Minnesota with advanced education (31%). Both groups of "non-natives" are better educated, on average, than those raised in this state. The difference is even more pronounced at the highest levels of educational attainment. Current residents of our state who were born anywhere outside of Minnesota *are twice as likely or more* to possess a graduate or professional degree as those Minnesotans born and raised here.¹ Therefore, our imported talent, both U.S.- and foreign-born, is raising our educational profile. This indicates that we need to give greater attention to improving the skills among the largest segment of our talent pipeline — native Minnesotans.

Figure 13

Creative Talent: Percent of labor force made up of entrepreneurs, artful or STEM workers
By state and U.S., 2007-2010



Source: MN State Demographic Center analysis of IPUMS.

¹ Some of this effect is due to the phenomenon that those with more education, in general, tend to be more mobile than their less-educated peers — in pursuit of jobs and opportunities.

How well do we retain Minnesota-born talent?

Relative to other states, the Minnesota-born workforce is more likely to remain in, or return to, Minnesota. Our state ranks 4th in the nation in the retention of

Degreed Talent. Fifty-nine percent of U.S. workers with a bachelor's degree or higher who were born in Minnesota work in Minnesota. Only Texas, California and North Carolina retain more of their educated native-born residents.

Minnesota's Creative Talent tends to work in their state of birth as well. Among all Creative Talent workers in the U.S.

who were born in Minnesota, 62.8 percent work in Minnesota, making the state 6th in the nation in retention of native-born Creative Talent.

Despite the relatively high rate of talent retention, there is a fair amount of movement of talent in and out of the state each year. In recent years, more talent has been moving out of Minnesota than has been moving to Minnesota from other states, a reversal of an earlier trend. Between 2007 and 2010, Minnesota lost about 1,300 more Degreed Talent and 1,300 more Creative Talent workers to other states than it gained each year (see Figures 15 and 16).^{m, 28}

Figure 14

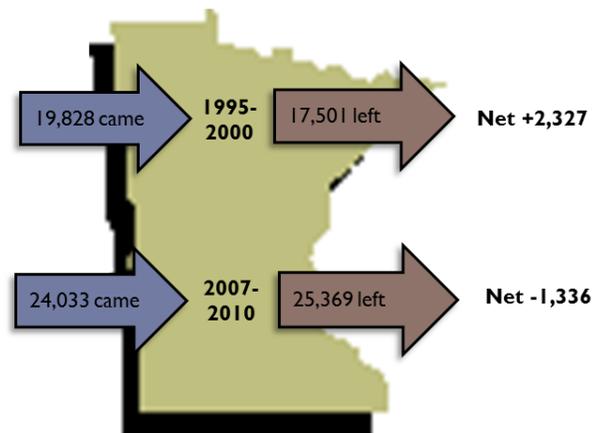
Talent working in state of birth, 2007-2010

Degreed Talent			Creative Talent		
Rank	State	Percent	Rank	State	Percent
1	Texas	69.7%	1	Texas	72.7%
2	California	65.7%	2	California	67.1%
3	North Carolina	61.0%	3	North Carolina	66.4%
4	Minnesota	59.1%	4	Georgia	64.1%
5	Georgia	58.7%	5	Tennessee	63.2%
6	Utah	57.4%	6	Minnesota	62.8%
7	Washington	56.0%	7	Utah	62.5%
8	Tennessee	55.4%	8	South Carolina	60.2%
9	South Carolina	55.1%	9	Alabama	59.9%
10	Wisconsin	54.1%	10	Wisconsin	59.2%

Source: MN State Demographic Center analysis of IPUMS.

Figure 15

Average annual Degreed Talent migrants Minnesota, 1995-2000 and 2007-2010

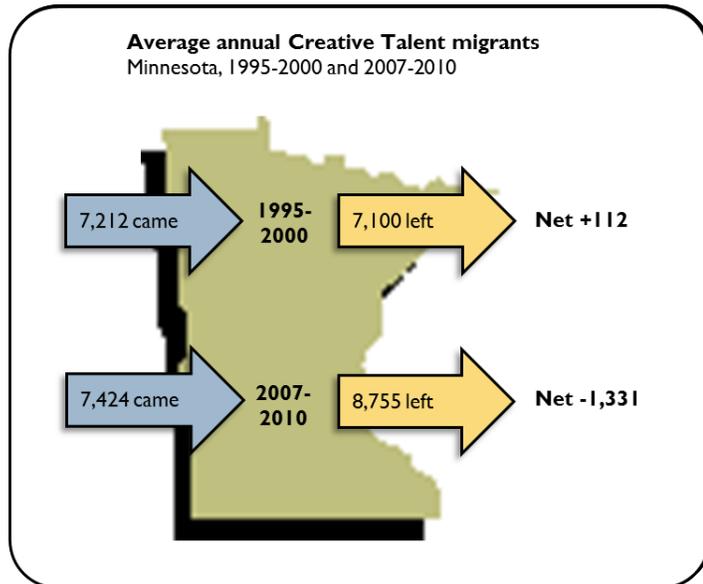


Source: MN State Demographic Center analysis of IPUMS.
Note: Showing domestic migration only.

^m Note: numbers of migrants are not unduplicated in the Figures. Some Degreed Talent is also represented in Creative Talent; therefore, the net loss in 2007-10 across both groups is about 2,000 individuals.

While Minnesota has been a net loser of U.S.-born talent to other states, migration of talent from abroad to our state has increased recently. This is true both among Degreed and Creative Talent migrants. During the years 2007-2010, an annual average of about 4,300 Degreed Talent workers and 2,100 Creative Talent workers arrived in Minnesota each year from abroad. These flows are up by about one thousand workers for each talent category from a decade prior. This infusion of international talent has allowed Minnesota to experience overall net gains in talented workers, and has been critical to enhancing our workforce profile.

Figure 16



Source: MN State Demographic Center analysis of IPUMS.
Note: Showing domestic migration only.

Of all the talent moving into Minnesota in recent years, talent from outside the U.S. made up a large share. Compared to the flows from other states, the numbers of talented individuals moving from abroad ranked second among Degreed Talent and first among Creative Talent migrants (See Figure 17). Wisconsin and North Dakota also ranked high on the list of states sending Degreed Talent to Minnesota, while we have Wisconsin and California to thank for sending the most Creative Talent our way in recent years.

Figure 17

Talent migrants moving into Minnesota by type and by sending state/region, 2007-2010

Degreed Talent Migrants			Creative Talent Migrants		
Rank	State	Number	Rank	State	Number
1	Wisconsin	19,764	1	Abroad	8,454
2	Abroad	17,296	2	Wisconsin	4,963
3	North Dakota	6,360	3	California	2,609
4	Florida	5,800	4	Texas	2,168
5	California	5,680	5	North Dakota	1,970
6	Illinois	5,526	6	Michigan	1,897
7	Iowa	5,069	7	Florida	1,897
8	Texas	3,718	8	Illinois	1,538
9	South Dakota	3,341	9	Iowa	1,378
10	Colorado	2,996	10	Colorado	1,357

Source: MN State Demographic Center analysis of IPUMS.

Where is Minnesota’s talent going?

Among the educated workers that moved to other states from Minnesota in recent years, a large share of talent remained in the Midwest. During the 2007-2010 period, Wisconsin, North Dakota, California and Illinois were the states most likely to receive Minnesota’s degreed workers. A similar set of states drew Minnesota’s Creative

Talent during 2007 to 2010, with Wisconsin, California, Texas and North Dakota topping the list.

Examining the movement of young talent

Over the past 40 years, young people (age 25 to 39) who possess a bachelor’s degree or higher are consistently more likely to change residences within five years than those young people without a degree.²⁹ Especially in recent decades, those among this group who were also single were even more likely to be mobile than those who were already married. These findings come from a U.S. Census Bureau report that examined movement in the five years before the 1970, 1980, 1990 and 2000 census — effectively tracking the flows of young talent all throughout the country.

We have already examined talent migration broadly, but the Census Bureau’s report allows us to better understand this key demographic that is an important economic driver. Notably, in 2000, Minnesota was one of 15 states that experienced a net increase in this population. While our state also experienced a net increase in single and degreed people during 1985-1990, there was a net outflow during 1965-1970 and 1975-1980. These historical reversals reveal that it is not a given that our state should continue to be a net gainer of young talent. Minnesota should continue to court this highly mobile talent pool.

Our state’s attractiveness for young talent compares favorably to our Midwestern neighbors. Except for Illinois and Minnesota, every other state in the Midwest saw more young, single talent exiting than entering in the most recent data (See Figure 19). Young, single people with college degrees were more likely to leave North Dakota, Iowa, and South Dakota than any other states, a trend that likely benefitted Minnesota because of our proximity.

Among those young, single, and degreed persons who moved, an overwhelming majority moved to metropolitan areas (rather than rural or medium-sized communities). This trend holds in Minnesota as well; many of these young

Figure 18

Talent migrants moving out of Minnesota by receiving state, 2007-2010

Degreed Talent Migrants			Creative Talent Migrants		
Rank	State	Number	Rank	State	Number
1	Wisconsin	12,520	1	Wisconsin	4,245
2	North Dakota	8,424	2	California	3,674
3	California	7,750	3	Texas	2,514
4	Illinois	7,035	4	North Dakota	2,343
5	Texas	6,099	5	Illinois	2,000
6	Arizona	5,902	6	South Dakota	1,972
7	Iowa	5,040	7	Colorado	1,589
8	Colorado	3,984	8	Arizona	1,473
9	New York	3,004	9	Florida	1,424
10	Florida	2,727	10	New York	1,379

Source: MN State Demographic Center analysis of IPUMS.

people moved to the 13-county Minneapolis-St. Paul metropolitan statistical area (MSA). In 2000, among the 20 most populous metros, our MSA posted the 8th highest net migration rate for this demographic.

However, those MSAs with the largest gains — Atlanta, San Francisco and Phoenix — experienced a net immigration rate more than twice the size of ours. If we could induce even more of these young people to come to the Twin Cities, our state would be better situated in the international competition for minds to power the future economy.

More recent data (2011) indicates that Minnesota ranks 8th highest among states, and that the Twin Cities ranks 5th highest among the 25 largest metro areas, in the share of 25- to 34-year-olds with a bachelor’s degree or higher.³⁰ The four metros that outdo us are situated on either coast — Boston; Washington, DC; San Francisco; and New York City. Minnesota is attracting and retaining a large share of young talent, and outperforming its Midwestern neighbors, but is less attractive than coastal cities. Improving our reputation as a good destination for those in their post-college years will further enhance our talent pool.

Figure 19

Young, single and college-educated net migration rate
Per 1,000 people, by state, 1995-2000

Gaining states			Losing states		
Rank	States	Rate	Rank	States	Rate
1	Nevada	282	18	Massachusetts	-5
2	Colorado	158	19	New York	-11
3	Georgia	151	20	New Jersey	-13
4	Arizona	110	21	Delaware	-14
5	Oregon	104	22	South Carolina	-41
6	Washington	97	23	Missouri	-47
7	California	93	24	Kentucky	-62
8	North Carolina	50	25	Connecticut	-70
9	Texas	49	26	Hawaii	-70
10	Florida	40	27	Utah	-70
11	Alaska	39	28	Maine	-80
12	Virginia	38	29	Michigan	-87
13	Maryland	32	30	Ohio	-88
14	Minnesota	16	31	Arkansas	-90
15	Tennessee	15	32	New Mexico	-93
16	Illinois	12	33	Kansas	-105
17	Idaho	6	34	Wisconsin	-108
			35	Wyoming	-109
			36	Pennsylvania	-112
			37	New Hampshire	-115
			38	Alabama	-116
			39	Oklahoma	-126
			40	Louisiana	-130
			41	Nebraska	-130
			42	Mississippi	-134
			43	Indiana	-142
			44	Vermont	-144
			45	Rhode Island	-147
			46	Montana	-162
			47	West Virginia	-197
			48	South Dakota	-216
			49	Iowa	-220
			50	North Dakota	-282

Source: U.S. Census Bureau, "Historical Migration of the Young, Single, and College Educated: 1965 to 2000," Population Division Working Paper No. 94, April 2012.

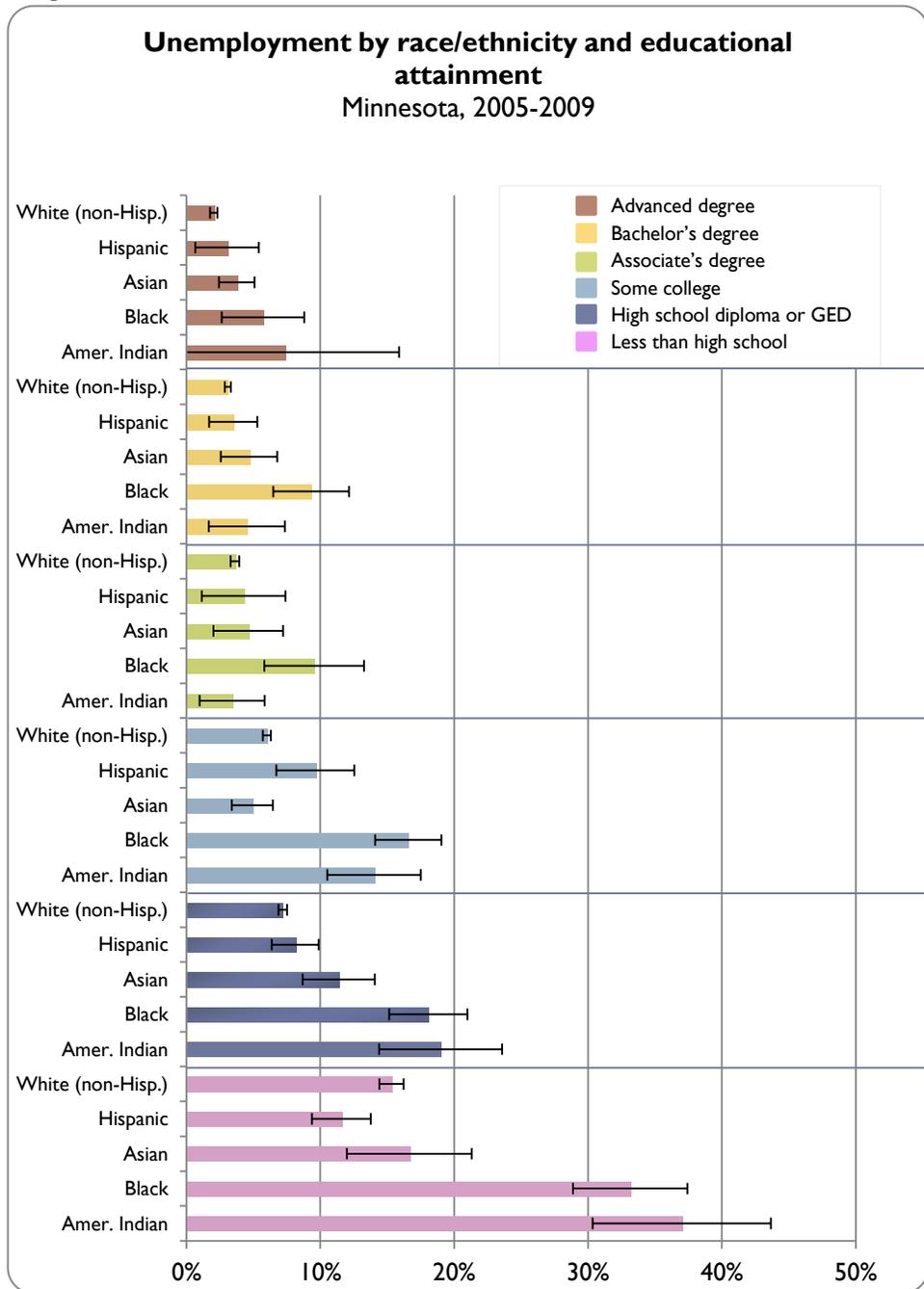
4. Disparities In and Beyond Talent

No analysis that touches on the need for human capital would be complete without a discussion about how our current and future talent pools are affected by diversity and disparities.

Unemployment and poverty levels in our state are much higher among people of color as a group, relative to White Minnesotans, while median incomes are lower.³¹

Some may speculate that these differences are driven simply by differences in education levels among certain groups relative to White Minnesotans. It is true that unemployment is strongly and inversely correlated with educational attainment, and because populations of color have less education (as a group), some of the differences in unemployment can be explained by different levels of educational attainment. However, even when holding education levels constant, we find that unemployment is still sharply higher among certain groups (see Figure 20).

Figure 20



Source: MN State Demographic Center analysis of IPUMS. Note: Error margins (horizontal I-shaped bars) are shown for a 90% confidence interval, the range within which we are 90% confident that the true value lies.

The unemployment differences patterned by race are greatest at the lowest levels of education, where Black and American Indian workers without a high school education fare far worse than non-Hispanic Whites or Asians with similarly limited schooling. (Notably, Hispanics without a high school degree have slight advantage over the White group, which is statistically significant.)

Elevated unemployment for Blacks and American Indians exists among the high-school educated group as well, although the disadvantage is not as extreme.

Additional forces (such as structural racism, fewer job networks, less accessible jobs) or characteristics (such as skill differentials, disability, language limitations, or criminal records) must be at play in the labor force to produce such differing outcomes by individuals with similar educational profiles.

(Notably, among the most highly educated persons, those with an advanced or professional degree, the differences in unemployment by race are much compressed, and most are not statistically significant.)

It is troubling to note that certain ratios of disadvantage here in MN are greater than other communities in the United States. In both 2010 and 2011, researcher Algernon Austin of the Economic Policy Institute revealed that the Minneapolis-St. Paul 13-county metropolitan statistical area had the largest disparity in unemployment rates between black and white workers among the largest metropolitan areas with reliable estimates — with black unemployment registering at 3.3 times the white rate in the most recent year.³²

These data suggest that even if education were uniformly distributed across groups (which it is not at present), certain populations of color may still experience poorer outcomes in the labor force. So while it is appropriate and laudable to focus upon all populations gaining equal access to talent (college-going and completion rates, for example), it is also important to look at the experience of all groups in the labor force and factors beyond education that may produce differential outcomes.

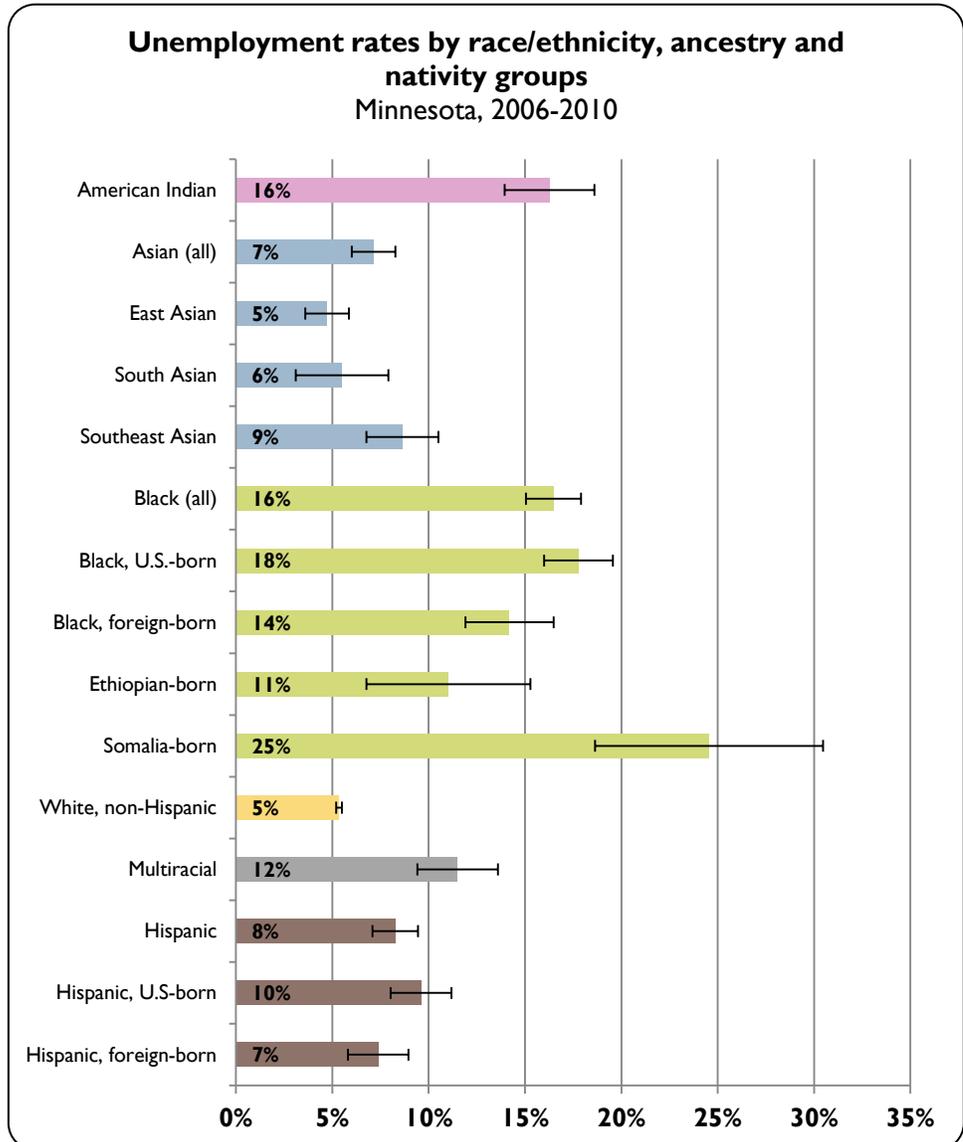
Even when holding education levels constant, unemployment is still sharply higher among certain groups. The unemployment differences patterned by race are greatest at the lowest levels of education.

A deeper analysis of some of the unique cultural groups in Minnesota reveals that the poor labor force outcomes among Black Minnesotans in the labor force is shared relatively equally among both U.S. born-Blacks and foreign-born Blacks (with between 12 and 20 percent unemployment, given error margins) (see Figure 21).

Among foreign-born Blacks in the labor force, however, we see that those born in Ethiopia are faring better than those born in Somalia in finding employment. Among foreign-born groups for which we could make reliable estimates, we also see that the Hispanic population is faring relatively well in the labor force (7 percent unemployed).

Among groups with Asian ancestry, the Southeast Asian groupⁿ appears to fare the poorest, but that group is still significantly more likely than American Indians and Blacks to have found employment.

Figure 21



Source: MN State Demographic Center analysis of IPUMS. Notes: Error margins (horizontal I-shaped bars) are shown for a 90% confidence interval, the range within which we are 90% confident that the true value lies. East Asian includes those who self-identified as Chinese, Filipino, Indonesia, Japanese, Okinawan, Korean, or Taiwanese. South Asian includes those who self-identified as Afghan, Bengali, Nepali, Asian Indian, Punjabi, Pakistani or Sri Lankan. Southeast Asian includes those who self-identified as Burmese, Cambodian, Laotian, Hmong, Malaysian, Thai, Taiwanese, or Vietnamese. Ethiopian- and Somalia-born Black residents are also represented in the Black, foreign-born category.

ⁿ Southeast Asians in this analysis include those who self-identified as belonging to one or more of the following ancestry groups: Burmese, Cambodian, Laotian, Hmong, Malaysian, Thai, Taiwanese, or Vietnamese.

Not only are these disparate outcomes unsettling in a country that values opportunity for all, our state's growing need for talent should force us to continue combating these differences to improve our economic standing. Failing to better develop the talent of all residents is squandering needed human capital. If current levels of economic disparity persist among our diverse and quickly growing groups of potential workers, the next generation's talent will be underequipped to combat rising projected deficits, and to offset potential productivity losses due to slowing labor force growth.

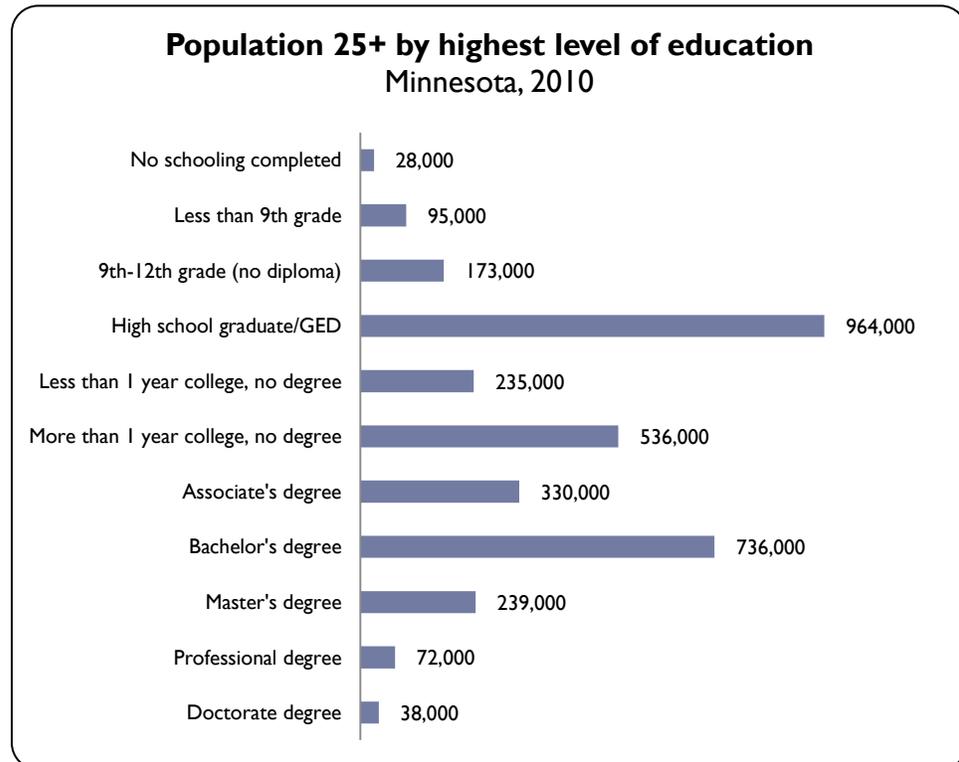
5. The Pipeline for Talent

While retaining and attracting talent are important issues for Minnesota, developing our existing human capital is perhaps the best way to ensure that we have the necessary talent moving forward. Furthermore, developing talented workers in close geographic proximity to the roles they will fill may provide opportunities to tailor workers' skills to the specific needs of Minnesotan employers and give workers an advantage related to understanding the local culture and customs of employers.

Figure 22 shows the numbers (rounded) of adult Minnesotans (age 25+) by their highest level of educational attainment. Minnesota has more than a quarter million adults with less than a high school education, and nearly 1 million with no education beyond their high school diploma. Furthermore, 771,000

Minnesotans who enrolled in some sort of post-secondary education left without a college degree. Adult basic education and retraining/reskilling programs are among strategies for creating better employment outcomes for these adults, although beyond the purview of this report. The remainder of this section focuses upon the children who will, in short order, enter our workforce. Despite a global marketplace for talent, the children of Minnesotans are still more likely to work in Minnesota than any place else.

Figure 22



Source: U.S. Census Bureau, American Community Survey. Note: Numbers are rounded.

Who is graduating from high school?

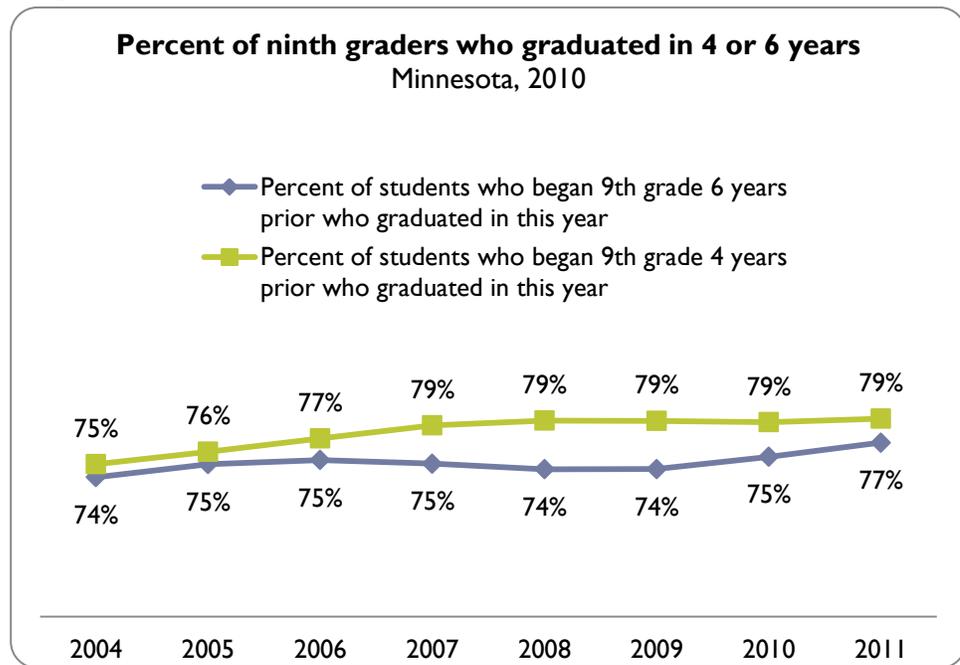
Reforms led by the National Governors Association and adopted by the U.S. Department of Education in recent years have led to a more rigorous and consistent measure of high school graduation: the “4-year regulatory adjusted cohort rate.”³⁰ The first set of state-by-state comparisons using these newly calibrated graduation rates have been published for the 2010-11 school year, although the data are preliminary. Despite MN’s generally strong reputation for education, these data indicated that Minnesota was middling (29th best) among all states in its overall four-year graduation rate. More troubling, however, was that Minnesota ranked last among the 50 states in graduating American Indian students, and 2nd to last in graduating Black students on time.³³

In anticipation of the new standard, Minnesota began publishing its 4-year rate several years ago. Minnesota also publishes a 6-year rate, calculated similarly, which allows two additional years for students to attain a diploma (and therefore shows how many students earned a degree in 4, 5 or 6 years’ time). Figure 23 illustrates that 77 percent of Minnesota’s students graduated high school in four years, earning a diploma in the class

of 2011, a rate that has increased three percentage points since 2009.

Meanwhile, the 6-year rate — which may be a more appropriate time horizon for some English Learner (EL) students — has been unchanged at about 79 percent during the past five years. This means that 1 in 5 new labor force

Figure 23



Source: MN Department of Education.

³⁰ Previously, many different methods were used, which made it difficult to compare graduation rates across jurisdictions and over time. The new rate examines the number of students who graduate in four years with a regular diploma (not a GED), divided by the number of students who entered ninth grade four years earlier, adjusted for transfers in and out of the school in each year. Students with “unknown status,” who are potentially dropouts, are included in the calculation, and no extra time is afforded to special education, English Learners, or students who may repeat grades.

entrants are still ill-equipped for labor force success. About only half of Minnesota's American Indian, Black and Hispanic high school students left with a diploma in 2011, even following 6 years' time.³⁴

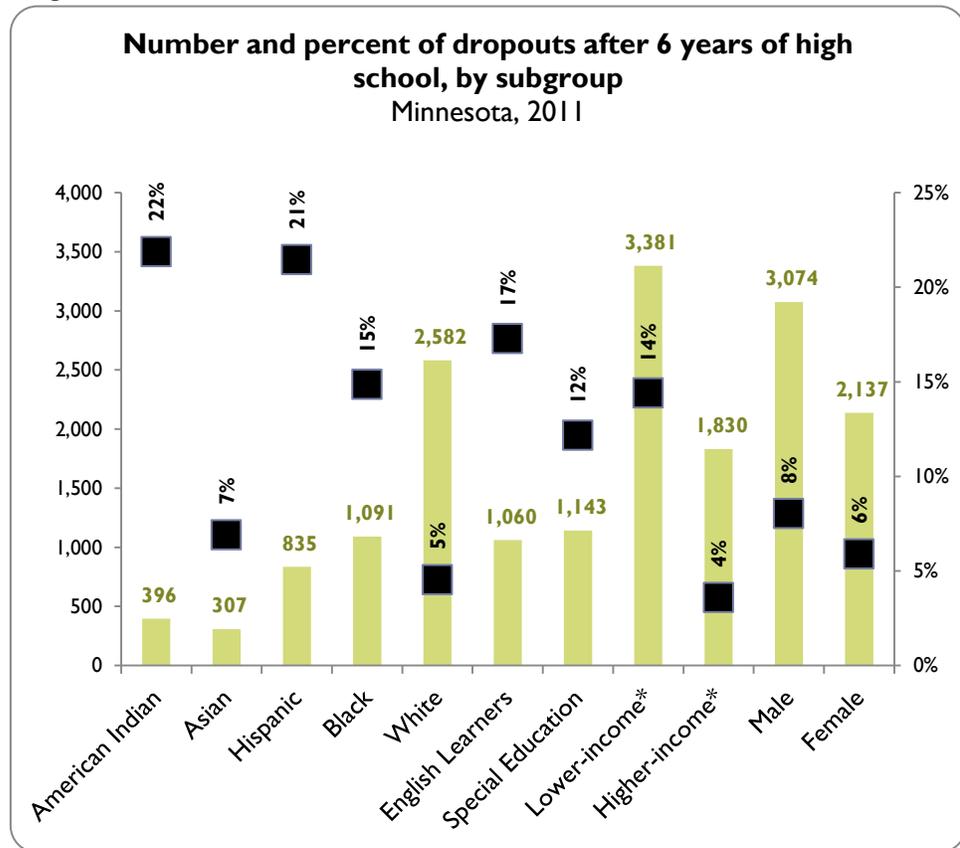
Disparities in dropping out of high school

By the spring of 2011, about 5,200 Minnesotan students who had six years in which to complete high school had instead dropped out somewhere along the way.³⁵ Students with lower household income (as evidenced by enrollment in free or reduced-price lunch) were more than three times more likely to have dropped out than their higher-income peers (See Figure 24). More than 1 in

5 Hispanic and American Indian students had exited high school without a diploma, while Black students as a group lost 15 percent of their human capital by this measure. Only 5 percent of White students dropped out, but their group of dropouts was the largest among all races, numbering nearly 2,600.

As we have demonstrated, a high school diploma is largely an initial (but insufficient) prerequisite to participating and advancing in the modern economy, and such sizeable numbers of dropouts are a troubling part of the talent pipeline in Minnesota. Granted, some of these dropouts may return to school or eventually attain an equivalency degree, but their advancement to postsecondary education is waylaid, and their immediate economic prospects are poor.

Figure 24



Source: MN Department of Education.

*Lower-income and higher-income students are determined by their enrollment in free- and reduced-price school meals.

At earlier mile markers for educational progress, we see wide gaps have already opened between white students and students of color, and between higher and lower income students. A 22 percentage point gap exists in both comparisons in the most recent proficiency levels (2012) among 3rd grade students who took the Minnesota Comprehensive Assessment (MCA) exam to measure whether students are meeting state standards in reading.³⁶ Similar achievement gaps throughout

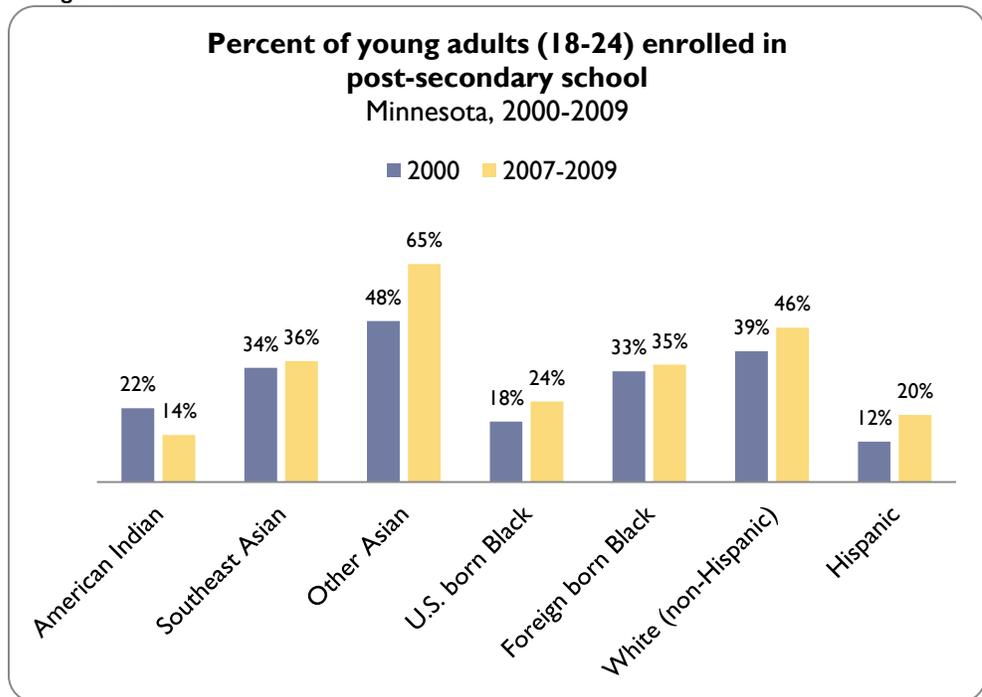
Minnesota’s primary and secondary school have been well-documented by others.

College enrollment by racial groups

In the past decade, post-secondary enrollment has increased appreciably for our state’s young adults (age 18-24) who are Hispanic, U.S.-born Black residents, non-Hispanic Whites, and especially for Asian residents with heritage from places other than the Southeast part of that continent (see Figure

25). Young adults with Southeast Asian^p ancestry (predominantly Hmong Minnesotans) and young adult Black immigrants were slightly more likely to be enrolled at the end of the decade as the beginning. Most troubling is the low and declining trend in postsecondary enrollment among young American Indian Minnesotans, in light of poor employment outcomes already experienced by this group (although the small sample size makes these data less reliable).

Figure 25



Notes: Older students who have already graduated from post-secondary school are excluded from these data, so as not to bias the percentages downward despite a positive outcome. Margins of error exist for these data but are not shown. Error will be larger for smaller groups, notably American Indians, so data should be interpreted with caution.

Source: MN State Demographic Center analysis of IPUMS. **Note:** Southeast Asian includes those who self-identified as Burmese, Cambodian, Laotian, Hmong, Malaysian, Thai, Taiwanese, or Vietnamese.

^p Southeast Asian includes those who self-identified as Burmese, Cambodian, Laotian, Hmong, Malaysian, Thai, Taiwanese or Vietnamese.

While the gains experienced by some groups are heartening, wide racial gaps remain and progress needs to be accelerated to ready these growing shares of our future workforce.

These disparate outcomes are troubling in their own right, but more concerning when one considers that some of the poorest performing groups are also the fastest growing among Minnesota's population. Between 1990 and 2010, the number of Asian, Black and Hispanic residents in Minnesota tripled, while the non-Hispanic White population grew by a modest 8.5 percent.³⁷ Between 2010 and 2030, we estimate that the populations of color will grow by more than 570,000 residents, while the non-Hispanic White population will gain roughly 280,000 residents — or less than half the number anticipated among residents of color.³⁸ Because our demographics are changing, with the lion's share of our state's population growth coming from populations of color, it is imperative that we continue to improve the opportunities for these groups both to acquire talent and to demonstrate and benefit from that talent by promoting evenhandedness in the labor force.

From the earliest levels of education (in child care and home settings) to the technical schools, universities and medical schools that inculcate powerful talents to students, Minnesota's pipeline of talent shows patterns of disadvantage by race. Reversing this concerning trend will require a community-wide focus upon educational attainment and completion, from the very earliest ages and throughout the talent pipeline.

Conclusion: The Future of Talent

Talent is the currency of the emerging economy. As this report has outlined, demographic and economic changes worldwide and in our backyard are putting a premium on talented, innovative, highly educated, and highly skilled workers.

More specific policy and programmatic recommendations about how to enhance the skills of our workforce for the emerging economy are beyond the purview of this report, but many thoughtful ideas can be found in “All Hands on Deck,” a 2012 publication of the Governor’s Workforce Development Council.³⁹ The listening session results and ongoing partnership of the Workforce Assessment initiative^q (a collaboration between MnSCU, DEED, the Minnesota Initiative Foundations, and MN and local Chambers of Commerce, among others) will no doubt lead to more valuable employer-informed responses to the skills gaps encountered in key industries and regions of Minnesota. These efforts must be continued and amplified to create cross-sectoral solutions to a complex problem.

Failing to better develop the talent of all residents is squandering needed human capital. If current levels of economic disparity persist among our diverse and quickly growing groups of potential workers, the next generation of Minnesota’s workers will be underequipped to combat rising projected deficits, and to offset potential productivity losses due to slowing labor force growth.

When many places around the globe are experiencing an aging population and a slowing labor force growth, Minnesota must be relentless in *developing* existing talent; *aligning* the talent produced with the skills required by job market; *attracting* new talent; and *retaining* our existing talent. Doing so will burnish Minnesota’s reputation for the depth of our talents in addition to the number of our lakes. An unwavering focus on these issues in “the time for talent” will position us for economic prosperity in the challenging years to come.

^q For more information, see: <http://www.mnscu.edu/business/workforceassessment/index.html>. Industry-specific employer responses from the listening sessions are available at “Employers Speak: Minnesota Workforce Needs,” at <http://www.iseek.org/careers/workforce>.

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Technical Notes

Numerous figures in this report cite “MN State Demographic Center analysis of IPUMS.” IPUMS refers to the Integrated Public Use Microdata Series of the U.S. Census Bureau’s American Community Survey (years are noted on respective figures). Often multiple years of the survey are used to minimize sampling error. The complete citation is: Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010.