



---

January 10, 2014

The Honorable Tom Saxhaug  
Chair, Senate State Departments and  
Veterans Division  
328 State Capitol

The Honorable Mary Murphy  
Chair, House State Government Finance and  
Veterans Affairs  
443 State Office Building

The Honorable Roger Chamberlain  
Ranking Member, Senate State Departments  
and Veterans Division  
129 State Office Building

The Honorable Bob Dettmer  
Ranking Member, House State Government  
Finance and Veterans Affairs  
279 State Office Building

**Re: In the Shadow of the Boomers: Minnesota's Labor Force Outlook**

Dear Committee Chairs and Ranking Minority Members:

The attached report "In the Shadow of the Boomers: Minnesota's Labor Force Outlook" is respectfully submitted by the Department of Administration in response to M.S. § 4A.01 and M.S. § 4A.11.

Please do not hesitate to contact my office with any questions. Thank you.

Sincerely,

A handwritten signature in black ink that reads "Spencer Cronk". The signature is fluid and cursive.

Commissioner Spencer Cronk  
Minnesota Department of Administration

cc: Legislative Reference Library (2)



**In the shadow of  
the Boomers:  
Minnesota's labor  
force outlook**



**MN STATE DEMOGRAPHIC CENTER**  
DECEMBER 2013

## Purpose

According to Minnesota State Statute 4A.02,<sup>a</sup> 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 October 2013, the MN State Demographic Center released its 2013 long-term population projections for the state, including anticipated counts for the male, female, and total population through 2065.<sup>b</sup> Our related Minnesota labor force participation projections through 2045, released in July 2013, indicate that the labor force will grow at a slower rate in the coming decades. This required report focuses upon the components of population change — births, deaths and migration — anticipated in Minnesota, the interacting labor force dynamics, and their implications, to fulfill the expectations of the statute.

---

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

<sup>b</sup> <http://www.demography.state.mn.us/resource.html?id=33558>

## Executive Summary

As the large Baby Boomer generation, those born between 1946 and 1964, continue to transition out of the workforce, a new labor force landscape is emerging across the United States and in Minnesota. The labor force growth rate, once a once a guaranteed phenomenon for generating more workers to fuel economic growth, will slow down considerably. Our projections indicate slowing labor force growth in Minnesota until the nadir of only .1% average annual growth during the 2020-2025 period.

The implications of slowing labor force growth include weaker gains in the production of goods and services, tempering economic growth. Barring sizeable increases in worker productivity, Minnesota's slowing labor force growth could result in a decline in our standard of living. Slowing labor force growth also moderates the growth of income tax revenues at precisely the time when more of our population is transitioning to ages during which public expenditures grow significantly. Our ability to pay for needed public services is dependent on maintaining a strong, skilled, and growing labor force.

Furthermore, because slowing labor force growth is affecting most states across the U.S. and most developed countries, there will be heightened international competition for labor, particularly talented workers that can take on the mantle of highly skilled and complex job functions. Increasingly, Minnesota will be competing with state and countries across the globe to secure the workers necessary to meet its workforce needs and fuel the economic engine of our state.

Against this backdrop, the role of increased domestic and international migration to secure Minnesota's labor needs becomes paramount. Our projections indicate that without positive net migration, Minnesota's population would begin shrinking by about 2043, due to more deaths than births in the resident population. Presently, Minnesota also loses, on net, about 12,000 residents ages 16 to 64 per year to domestic migration.<sup>1</sup> It is only because of additional flows of about 20,000 international migrants that Minnesota experiences positive total migration of about 8,000 working-age people annually.

Given these trends, Minnesota policymakers, as well as business and community members should make choices to build a strong labor force — both in numbers and in skills preparation — to preserve a high quality of life for Minnesotans. While specific policy recommendations are beyond the purview of this office, broadly speaking, Minnesota should:

- Expand state-level efforts to make Minnesota more attractive to domestic migrants and international immigrants, and welcoming of these groups in the workplace as well as at the community and neighborhood level.
- Focus upon the labor force participation of groups less represented currently, redoubling efforts in the areas of adult basic education, English language learning for non-native speakers, skills and credential training. Adults who have earned a bachelor's or higher degree are 10 percentage points more likely to be participating in the labor force than those whose highest degree was a high school diploma — 89% versus 79%, respectively. And the presence of a high school diploma as a minimum level of education serves to roughly *double* the employment rates for Hmong and Somali immigrants.

- Create more flexible working arrangements including part-time offerings and job sharing to induce more workers who do not have full-time availability, as well as older workers seeking a phased retirement, to participate in the labor force.
- Improve the educational and skills pipeline for our young people who will become our new entrants to the workforce, especially among our fast-growing populations of color who have poorer educational outcomes and less educational attainment.
- Better align post-secondary training programs with the needs of the emerging economy, and continue to acquaint students, parents, high schools, higher education institutions, and businesses with those occupations expecting high growth and/or high replacement needs in the coming decades.
- Consider various public policy changes that will result in additional flows of workers for industries and occupations that are dependent upon them.

Minnesota stands at a unique point in its history, where the demographic trends of an aging population and declining fertility are conspiring to dramatically slow its labor force growth, threatening to put a drag on our economic output. In the coming decades, greater numbers of migrants, both domestic and international, will be necessary to meet our state's work force needs and to buttress economic activity. In addition to developing, attracting and retaining talented workers, Minnesota will need to leverage greater contributions and productivity from all of our state's potential workers to manage this new demographic and economic reality, and maintain a high quality of life for Minnesota residents.

## Introduction

Much has been written and discussed about the aging of the Baby Boomer population — the largest generation to ever become older adults in the United States — and concerns about whether states and communities will have the resources to respond to the growing health, social support, transportation and other needs. While this attention is warranted and likely needs to be amplified, a corollary concern arises in the shadow of the Boomers: how will the nation respond as they increasingly exit the labor force? The heady growth of the U.S. labor force, once a guaranteed phenomenon for generating more workers to fuel economic growth, will slow down considerably. Overall population growth is anticipated to continue, but far more slowly. Furthermore, in Minnesota as across the nation, the coming decades will see a major shift in *how* our population grows — births that outnumber deaths will fall dramatically, making the role of migration far more important.

This report examines how these related trends are anticipated to play out in Minnesota, with the attention fixed on the size and composition of the labor force<sup>c</sup> currently and in the coming decades. The net level of migration (domestic and international), labor force participation rates<sup>d</sup>, the retention of our workforce, and the health and educational preparedness of our young people entering the workforce will together define the new labor force in Minnesota. It is imperative that we attend to all of these issues to build a strong and sizeable labor force for the coming decades. Otherwise, these demographic changes may shift our state's economy into a much lower gear, negatively affecting the quality of life for all.

### The Boom and Boon of Babies

If you take the long view, babies create economic growth. In the aggregate, many births in a population yield an economic benefit as those children come of age. Of course, this assumes they have received the educational and other supports from their family and communities along the way so that they are prepared to step into (and create) jobs. Having a population bulge that ages into its prime working years is sometimes referred to as a “demographic dividend,” as these people overwhelmingly hold employment, produce goods and services, pay income taxes, and generate economic activity without being the recipients of many public outlays. (This is opposed to children and older adults, who as a group are the beneficiaries of greater public expenditures primarily in the form of education and health spending.) Such was the case following World War II, when fertility rates rose markedly and the Baby Boomer generation, the most populous to date in American history, was created. As the Boomers moved through their prime working years, America has benefitted from the tremendous economic (not to mention social and cultural) contributions from those born between 1946 and 1964.

In 2011 the Boomer generation began turning 65, the age at which nearly all are eligible for Medicare benefits, and in 2012 the oldest Boomers reached the age of full Social Security benefits. Retirements have begun apace. While some Boomers will enter retirement fully, others will choose to keep one foot in the labor force, reducing their hours, and others will likely continue working so long as they can — whether for economic need, the desire to keep contributing and growing, or both. Our projections anticipate that those Boomers who in 2010 were 55 to 64 years old will cut their labor force participation rates by more than half — from 72% to

---

<sup>c</sup> The labor force is defined as those either employed or seeking employment.

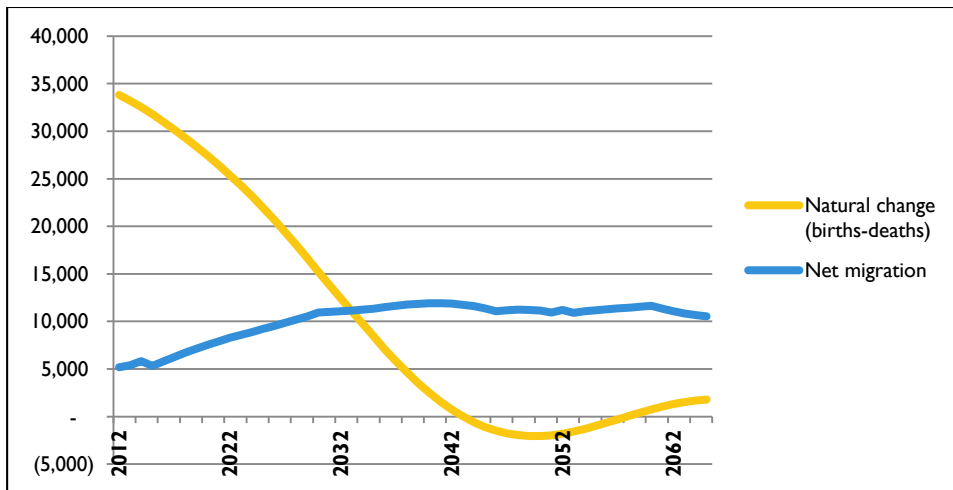
<sup>d</sup> The labor force participation rate is calculated by taking the labor force divided by the total civilian non-institutionalized population.

30% — in the next 10 years of their lives. (See Appendix A for labor force participation rates by age and gender to 2045.) And when they begin to occupy the 75 and older group, less than 10% of the Boomers will still be in the labor force at any level. While we are fortunate that many Boomers will not embrace retirement immediately upon reaching 65, their labor force participation is already thinning considerably relative to their cohort’s involvement in prior decades. And as those surviving Boomers begin turning 75 in 2021, their imprint on the labor force will be greatly reduced, and our state will be increasingly reliant on the generations of workers that follow them.

### The Ingredients of Population Change

Population change results from of the interplay of three human factors: the number of babies born, the number of deaths experienced, and the net migration<sup>e</sup> of people. Projecting the volume and pace of all three allows us to develop long-run projections to understand the needs of our future population, both for labor force and other planning. Figure 1 shows projections for Minnesota based on migration and “natural change,” the remainder once subtracting deaths from births, through 2065. (See Appendix C for population projections by

**Figure 1: Minnesota’s projected net migration and natural change, 2012-2065**



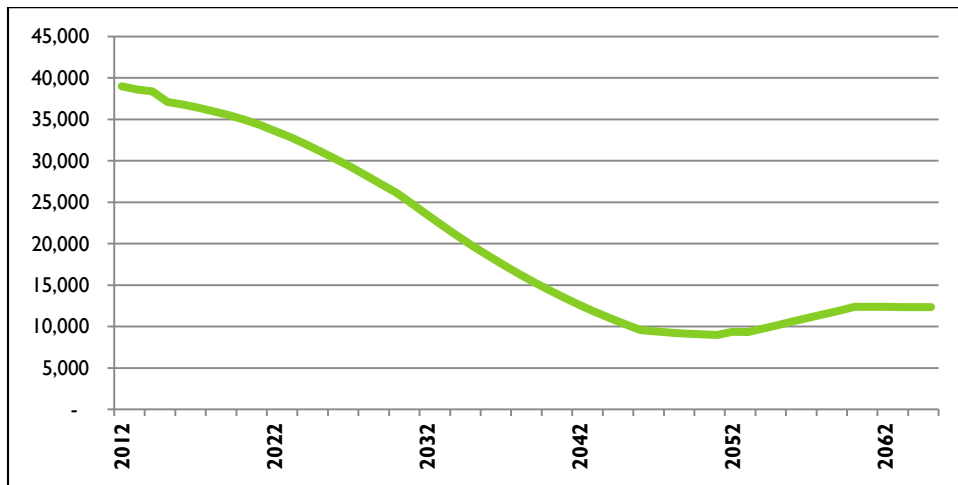
Source: MN State Demographic Center.

age and gender to 2065). The falling levels of natural change are dramatic. Due to declining overall fertility rates and eventual deaths in the large Baby Boomer generation, the resulting natural change plummets until it becomes negative around 2043. This is the point at which, if Minnesota were to experience no positive net migration, Minnesota’s population would begin to shrink. From about 2043 to 2058, our projections indicate that there will be more Minnesotans dying each year than being born.

<sup>e</sup> Net migration is the result after subtracting out-migration from in-migration. If net migration is positive, more people migrated into a place than left.

Figure 2 shows how these two lines, once summed, result in the overall population change anticipated for our state through 2065. Already population growth is falling, and the 2020s and 2030s will likely see even faster declines in population growth (when the slope of the line grows steeper). Population growth is likely to slow until about 2050, after which it accelerates somewhat. Of course, these projections are based upon past experiences and our forward-looking assumptions regarding fertility, life expectancy, migration in and out of Minnesota. All of these elements may change somewhat but will not likely alter the basic conclusion: that these projections foretell a future that is considerably different than the preceding decades of strong population and labor force growth for Minnesota.

**Figure 2: Minnesota’s projected population change, 2012-2065**



Source: MN State Demographic Center.

These newest long-term population projections are based in part on Minnesota’s share of national projections produced by the U.S. Census Bureau. In December 2012, the Census Bureau made a significant downward revision in its long-term population projections, believing that international immigration was also likely to play a much smaller role than previously predicted.<sup>2</sup> One major reason is that Mexican emigration to the U.S. has tapered in recent years, perhaps due to improving strength of the Mexican economy creating more job prospects<sup>3</sup>, enforcement actions against workers without legal status, or other factors. The Bureau also cited declining fertility across the U.S. as a factor in reducing its population growth assumptions. The annual number of births in the United States declined each year between 2008 and 2012, largely due to lingering impacts of the recession.

Broadly speaking, as a population grows, so does its labor force — those members of the population working or seeking work. And as the growth of the total population moderates, the labor force growth cools as well. Additional demographic, educational, economic, and health factors may also affect which members of a population choose to participate in the labor force. The second half of the 20<sup>th</sup> century saw rising labor force participation rates across the United States and here in Minnesota due to the fact that the large Baby Boomer generation was in its prime earning years and increasing shares of women joining the labor force. The share of women age 16 or higher who were in Minnesota’s labor force more than doubled between 1950 and 1990, rising from 30% in 1950 to 62% by 1990 (see Figure 3). However, since women’s labor force participation

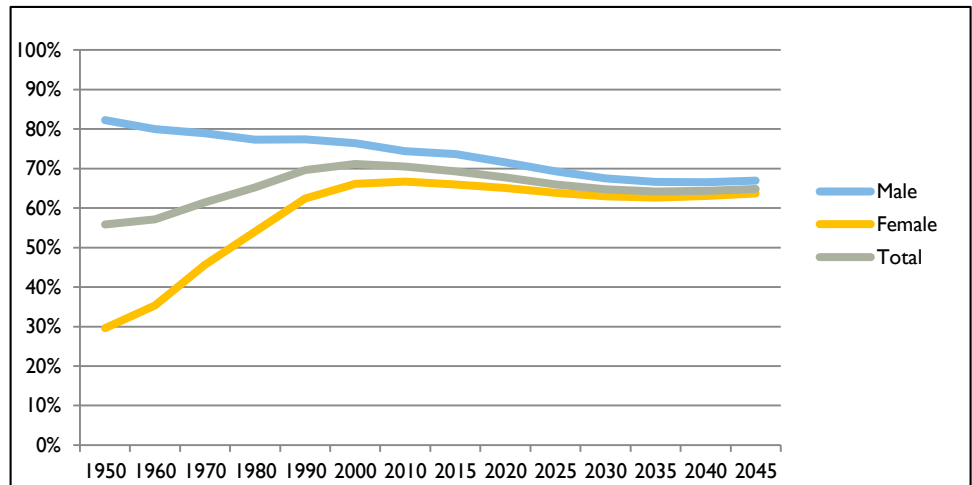


appears to have largely peaked, and the Boomers are increasingly exiting the labor force, future gains from these two trends have been mostly exhausted.

Figure 4 shows the average annual labor force growth rates that Minnesota experienced in recent decades, and the much more modest rates of growth that our projections indicate we will see in the coming years. The 1970s saw the greatest growth of the century, driven by the Boomers' entrance

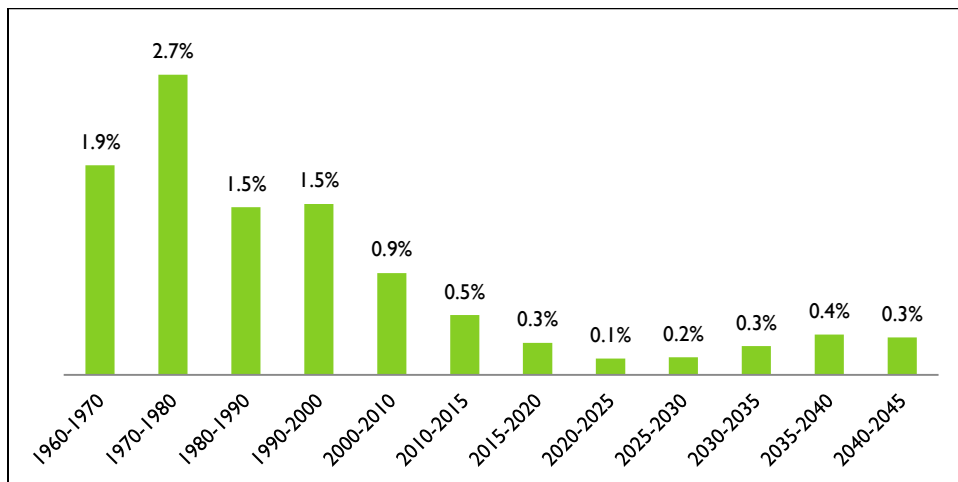
into the workforce and women's swelling participation rates. While growth in the 1980s and 1990s averaged 1.5% each year, annual growth fell to .9% on average during the 2000s, and is projected to be nearly halved again — to .5% during the 2010-2015. The period from 2015 to 2035 is likely to see annual rates averaging .3% or less. The period from 2020-2025 will see almost no labor force growth, a phenomenon that Minnesota has never experienced since 1960, as far back as the data permit us to examine.

**Figure 3: Historical and projected labor force participation rates of the 16+ population by sex, Minnesota, 1950-2045**



Source: U.S. Census Bureau, decennial census, and MN State Demographic Center.

**Figure 4: Minnesota's average annual labor force growth rate, historical and projected, 1960-2045**



Source: U.S. Census Bureau, decennial census, and MN State Demographic Center.  
 Note: Refers to a compounded annual growth rate.

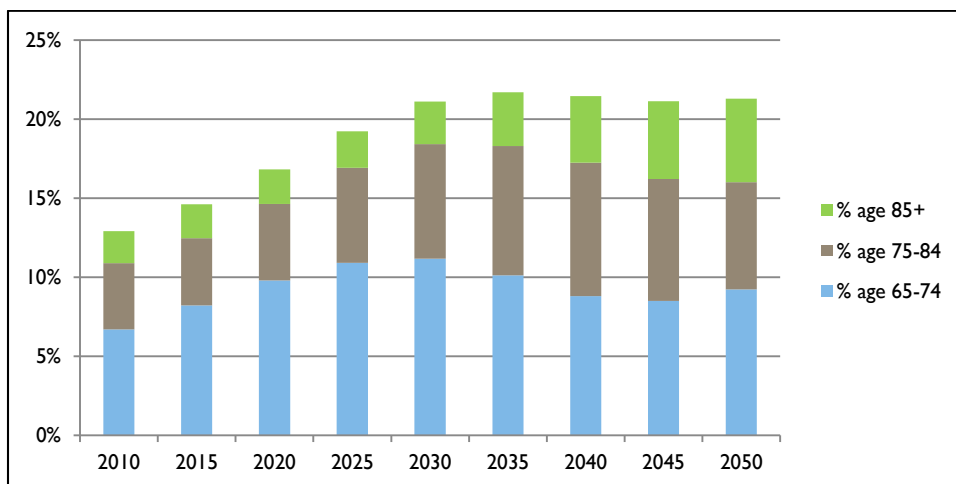
## Implications of slowing labor force growth

Historically, as the labor force has grown, so has our economy. Additional labor force entrants generate more goods and services and multiply economic activity, which contributes to long-term economic growth (as measured by gross domestic product).<sup>4</sup> However, if other economic fundamentals remain unchanged, slower labor force growth will result in weaker gains in the production of goods and services, tempering economic growth. Improvements in productivity can improve the ratio of economic output relative to the size of the labor force. But barring sizeable increases in worker productivity, our slowing labor force growth could result in a decline in per capita personal income. In short, these demographic trends may negatively impact our standard of living.

This problem is not confined to the United States' borders. In addition to most states, cooling labor force growth is affecting most developed countries, which are experiencing overall population aging and declines in fertility. In Japan, the labor force has already begun contracting. This widespread phenomenon results in more international competition for labor, particularly talented workers that can take on the mantle of highly skilled and complex job functions. Minnesota is now and increasingly will be competing with state and countries across the globe to secure the workers necessary to meet its workforce needs and fuel the economic engine of our state.

Slowing labor force growth also moderates the growth of income tax revenues at precisely the time when more of our population is transitioning to ages at which public services and expenditures grow significantly. Our projections indicate a *doubling* of the 65 and older population in Minnesota between 2010 and 2030, at which time more than 1 in 5 state residents will be 65 or older (see Figure 5). Between 2030 and 2050, the surviving Baby Boomers will all join the 85 and older group, which will grow from 3% to 5% of our total population over those years as a result.

**Figure 5: Older adults as a share of Minnesota's total population, 2010-2050**

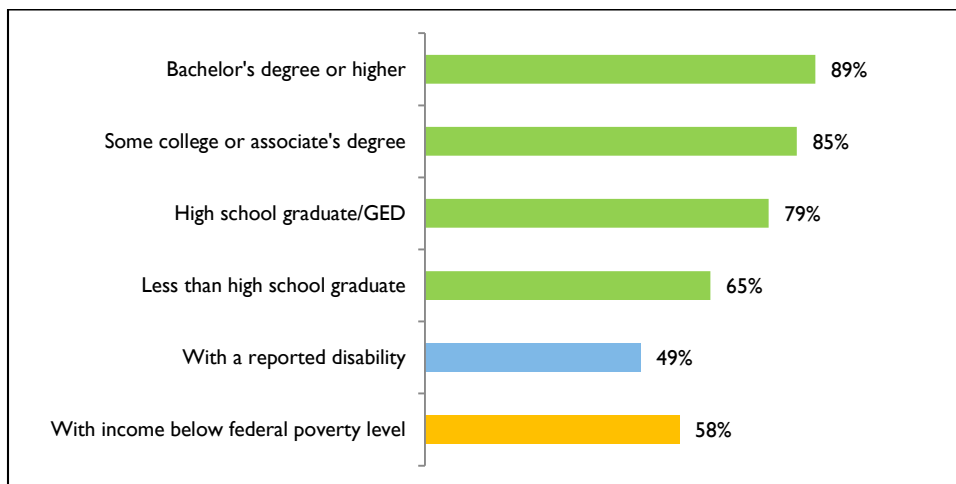


Source: MN State Demographic Center.

## What factors affect labor force participation?

A variety of demographic, economic and social factors affect how many and which people participate in the labor force. Already we have discussed how individuals participate less in the labor force as they age into older age groups. In the coming decades, this will reduce overall participation considerably because the approximately 1.3 million Boomers in Minnesota are such a large segment of the population. Historically, workers age 25 to 54 years old have the greatest labor force attachment, although parents (especially mothers) are less likely to participate when their children are young. Economically, business cycles can also create new opportunities in the labor force, inducing greater participation or, during and following recessions, creating much higher barriers and discouraging participation, especially for groups like the long-term unemployed. During and following the most recent recession, labor force participation among the 16 and older population in Minnesota fell from 72.2% in 2008 to a low-point of 70.1% in 2012.<sup>5</sup> Social factors such as health and disability challenges, marital status, or full-time enrollment in higher education may also affect participation. In addition, individuals with lower educational attainment are less likely to be working or seeking work. Adults who have earned a bachelor's or higher degree are 10 percentage points more likely to be participating in the labor force than those whose highest degree was a high school diploma. Figure 6 shows Minnesota's labor force participation rates in 2012 by various characteristics (excepting age).

**Figure 6: Labor force participation rates by various characteristics, Minnesota, 2012**



Source: U.S. Census Bureau, 2012 American Community Survey estimates.

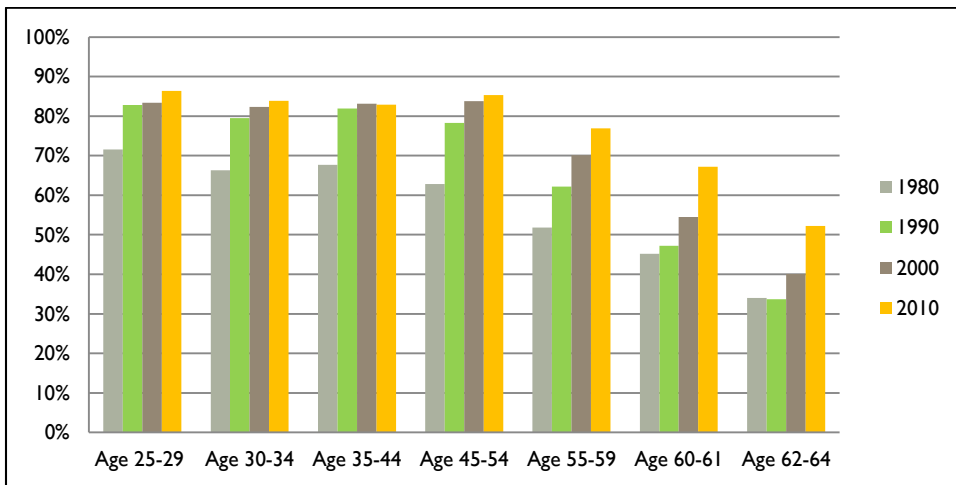
Notes: Rates for educational attainment refer to the population age 25-64. Rates for those with a disability or in poverty refer to the population age 20-64.

## Participation rates by age and historical trends

Different age groups participate in the labor force at different rates, as do males and females. In 2010, Minnesotans in their prime earning years of 25-54 participated at a very high rates, with 88% of them working or seeking work. (Appendix D shows these recent rates, as well as historical rates by age groups and gender dating back to 1980.) Several patterns emerge about our state's labor force history over the past 30 years. During their prime earning years and even into their late 50s and early 60s, Minnesota women were far more likely to be working in 2010 than in 1980. For example, 66% of women in Minnesota ages 30-34 participated in the labor

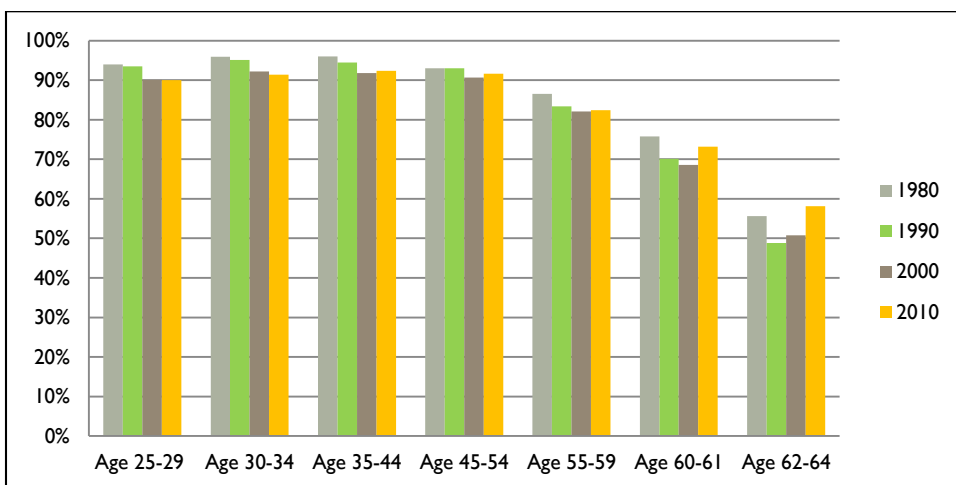
force in 1980. Thirty years later in 2010, 84% of Minnesota women in their early 30s (including many mothers) were heading off to work (or seeking work).<sup>6</sup> Figure 7 shows women’s growing contributions across various age groups. Among younger women, much of the increase occurred in the 1980s, while among older women, much of the increases have occurred since 2000. Over the past 30 years, however, men’s participation among several age cohorts declined slightly (see Figure 8).

**Figure 7: Minnesota women's labor force participation rates, select age groups, 1980-2010**



Source: U.S. Census Bureau, decennial census.

**Figure 8: Minnesota men's labor force participation rates, select age groups, 1980-2010**



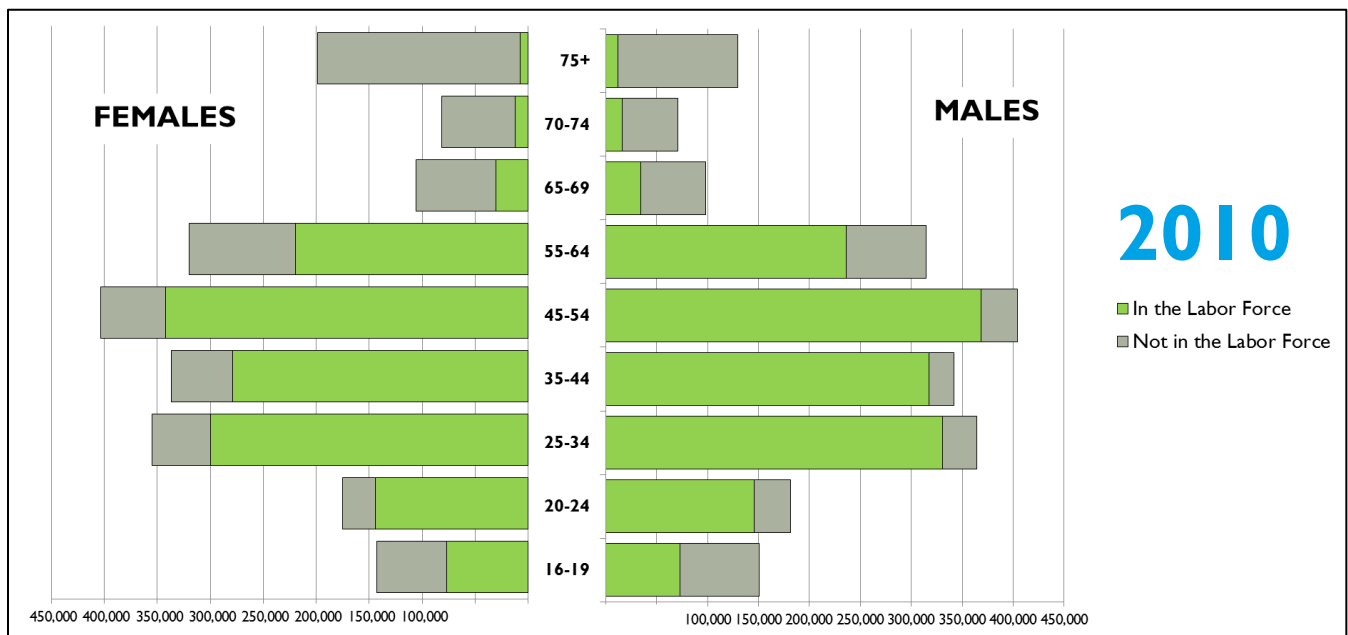
Source: U.S. Census Bureau, decennial census.

While the participation rate of those 75 and older is largely unchanged, older adults in their 60s and early 70s are also remaining in the work force at much higher rates. Minnesota’s workers age 55-64 were about 10 percentage points more likely to be in the labor force in 2010 than three decades prior. This is in contrast to

work force contributions by teenagers, who are less likely today to hold jobs while also attending school. Taken together, these trends have served to move the median age of Minnesota’s labor force higher, as older workers comprise a greater share of the work force. Our labor force projections examine how the coming decades will likely further modify rates by age and gender.

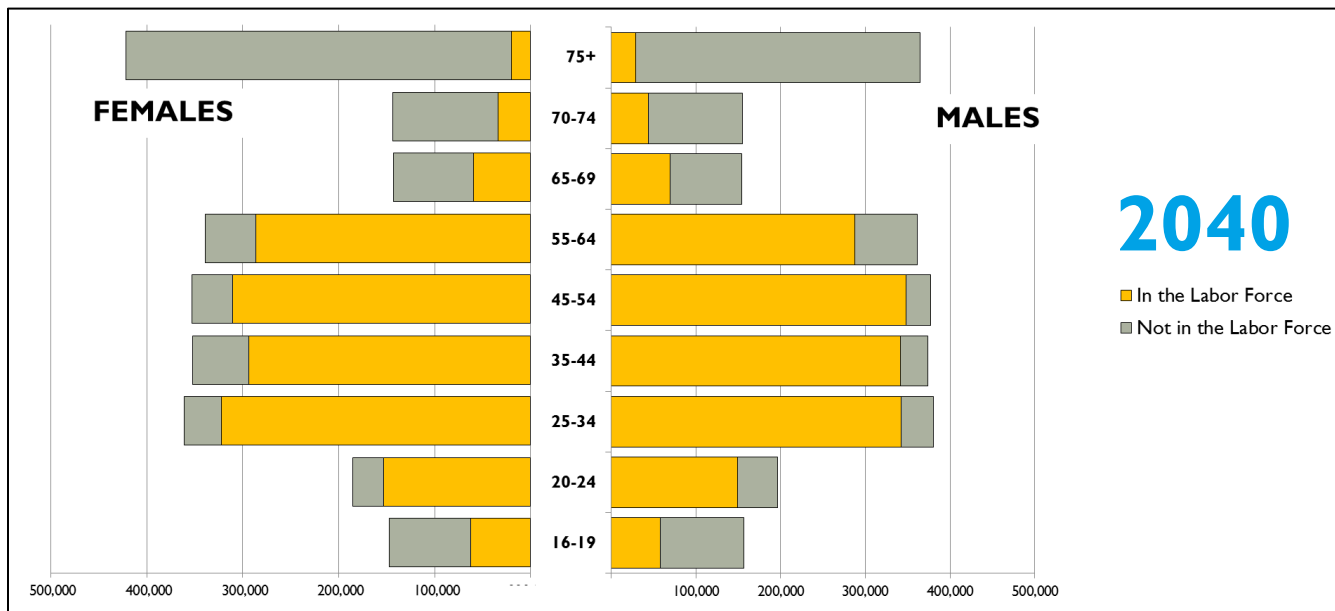
Figure 9 shows Minnesota’s labor force participation rates, nested within the total population, by age groups and gender in 2010, while Figure 10 shows the participation rates forecasted within the population structure anticipated in 2040. The contrasting figures show the transition that Minnesota will experience as it moves toward an overall age structure that is much more “top-heavy,” along with even higher rates of work force participation among older age groups, particularly the 65- to 74-year-olds, and declining rates of participation among 16- to 24-year-olds. Participating shares are predicted to grow among older workers due to various factors including a lengthening life expectancy, a generally healthier older population, a rising Social Security full benefits age schedule, and the shift toward more defined contribution rather than defined benefit retirement plans (thus introducing more variability in retirement assets).<sup>7</sup> The declining participation shares among younger workers are assumed to be a result of fewer opting to work at the same time as attending high school or post-secondary education, rising shares attending post-secondary education, and a more challenging job market for younger workers. (See Appendix C for a table showing projected labor force participation rates by finer age groups and gender.)

**Figure 9: Minnesota’s labor force participation by sex and age cohort, 2010**



Source: U.S. Census Bureau, 2010 decennial census.

**Figure 10: Minnesota’s projected labor force participation by sex and age cohort, 2040**



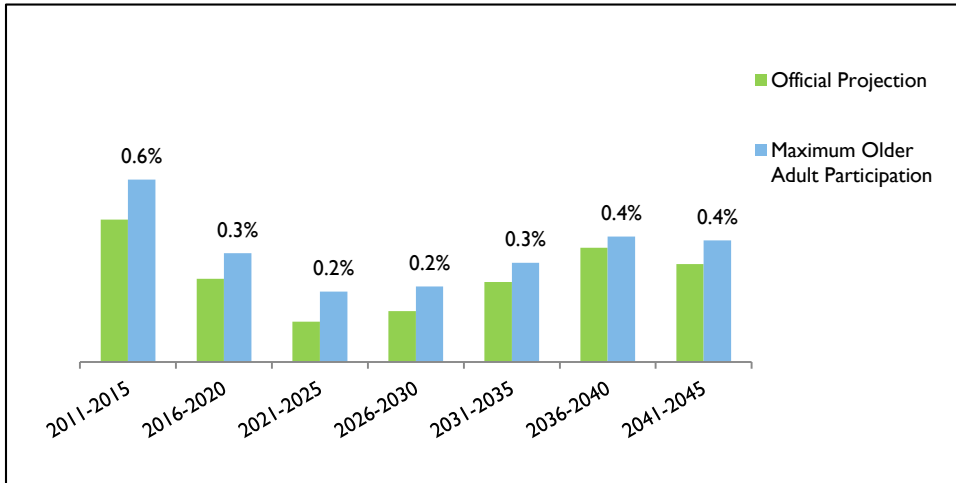
Source: MN State Demographic Center projections.

### What about older adults working longer?

These labor force projections involve a variety of assumptions about likely behaviors of male and female workers and workers of various age groups, based on historical patterns.<sup>f</sup> Given that life expectancy is lengthening, plus the fact that today’s older adults are generally healthier than prior generations (the most recent data from the CDC indicated that a 65-year-old in Minnesota had a life expectancy of another 20.1 years with 15.6 of those years being in good health<sup>8</sup>), some may wonder whether these projections underestimate the labor force contributions that will result from older adults deferring retirement considerably past age 65. The official projections already account for reasonable growth in older adults’ labor force participation rates. However, to assess the maximum impact that could result from older adults working longer, an alternate set of projections were built around the scenario where most surviving adults above age 65 without health impairments remain in the labor force. Even in this highly unlikely scenario, the labor force growth rate in Minnesota still slows considerably (see Figure 11), bottoming out at very modest .2% annual growth between 2020 and 2030 — still less than half the current rate. In short, while greater participation among older workers is anticipated than in prior decades, even the most generous scenarios about their contributions will not be enough to reverse slowing labor force growth that we anticipate. Additional planning and contributions from elsewhere will be necessary to shore up our labor force needs.

<sup>f</sup> See complete methods document at [http://www.demography.state.mn.us/documents/Methodology\\_LFprojections\\_2010-2045.pdf](http://www.demography.state.mn.us/documents/Methodology_LFprojections_2010-2045.pdf)

**Figure 11: Alternate average annual labor force growth rate projection with maximum labor force participation by older adults, Minnesota, through 2045**

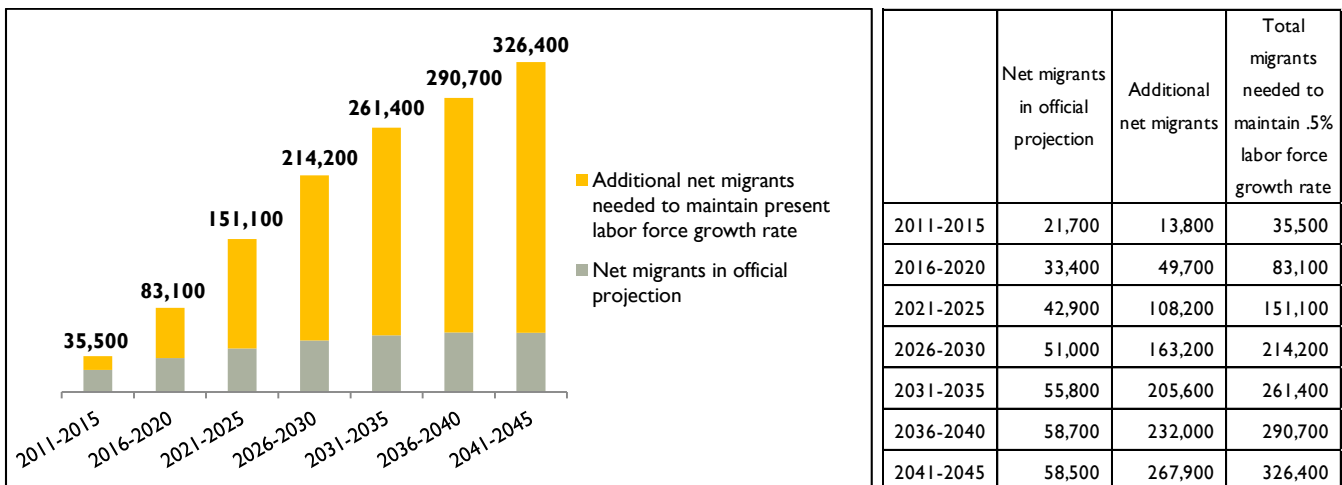


Source: MN State Demographic Center. Note: Refers to a compounded annual growth rate.

### The role of migration

The work of projecting labor force entrants is relatively straightforward, especially in the near term, as the babies who will become workers have already been born. Patterns of mortality also change fairly slowly. Thus, migration is the most variable component in population change. One way to create a different future for Minnesota would be to attract higher numbers of migrants to participate in our labor force than anticipated, so that the state doesn't experience the projected labor force growth reductions. To maintain our present .5% annual labor force growth rate, our state would need to attract more than 63,000 *additional* net migrants by 2020, more than 108,000 in the five years following that, and sharply increasing numbers thereafter — including roughly 270,000 *additional* migrants between 2036-2040, or more than 326,000 total (see Figure 12). Obviously, this would be a very tall feat. Thus, continued reductions in our state's labor force growth are highly likely.

**Figure 12: Net migrants necessary to maintain a .5% labor force growth rate in Minnesota, 2011-2045**



Source: MN State Demographic Center projections.

Domestic migration from other U.S. states to Minnesota plays an important role in the larger picture of change. However, in recent years, state-to-state movement has been draining labor resources rather than adding them to our state. Minnesota sees about 90,000 of its 16- to 64-year-old residents leave annually for other states, while about 78,000 other residents of those ages move to Minnesota from other states. Netted out, Minnesota loses about 12,000 working-age residents per year to this domestic migration.<sup>9</sup> It is only because of additional flows of about 20,000 international migrants, age 16 to 64, that Minnesota experiences positive total migration of about 8,000 working-age people annually.<sup>8, 10</sup> While efforts to improve Minnesota's attractiveness to lure workers from other states are important, it will take considerable resources to reverse the current domestic outmigration and meet our labor force challenges with domestic migration alone. Immigrant workers will be increasingly necessary to supply the labor force in Minnesota with ready hands and talented minds.

The flows of international immigrants and refugees are in many ways a response to public policies that restrict and open access for these populations. A range of other factors — including economic and educational opportunities in the receiving country relative to the sending country, political instability and oppression, famine and drought — also affect which groups are likely to move around the globe. Local factors such as job opportunities, resettlement agencies, and existing ethnic communities that encourage primary and secondary migration can connect foreign-born residents to specific communities within Minnesota. Given this, the numbers and origins of immigrant populations going forward can be far more difficult to predict. Importantly, however, the immigration component of the future labor force is also the one level over which we have greatest control to affect the course of our future and improve our labor force and concomitant economic growth.

Therefore, public policy changes will likely be necessary to allow and even incent additional international emigration to the United States and Minnesota. One group that may be readily induced to join our labor force is foreign students educated in U.S. universities who are currently required to return to their countries following the expiration of their student visas. More specific policy proposals are beyond the purview of this paper and the mission of the MN State Demographic Center, but this report details the demographic trends that underscore their need if we wish to continue growing our labor force.

Greater economic integration of our current native-born and foreign-born populations also holds promise for our coming labor challenges. With this in mind, we turn to an examination of those groups with less labor force participation in Minnesota.

### **Untapped existing labor resources**

Although elsewhere in this paper, we have considered the labor force participation for all members age 16 or older, as is historical convention, the following analyses are constrained to ages 16 to 64, more typical ages of workforce participation. As Figure 13 reveals, Minnesota's ethnic groups experience differences in their likelihood that they are working, seeking work, or not participating in the labor force, with White and Hispanic working-age adults most likely to be participating, and Black, Asian and American Indian adults less likely to be participating. Of course, labor force participation is not a simple decision on the part of the worker. A job must be available and an employer must hire an individual to work, or one must be actively looking for a job to secure

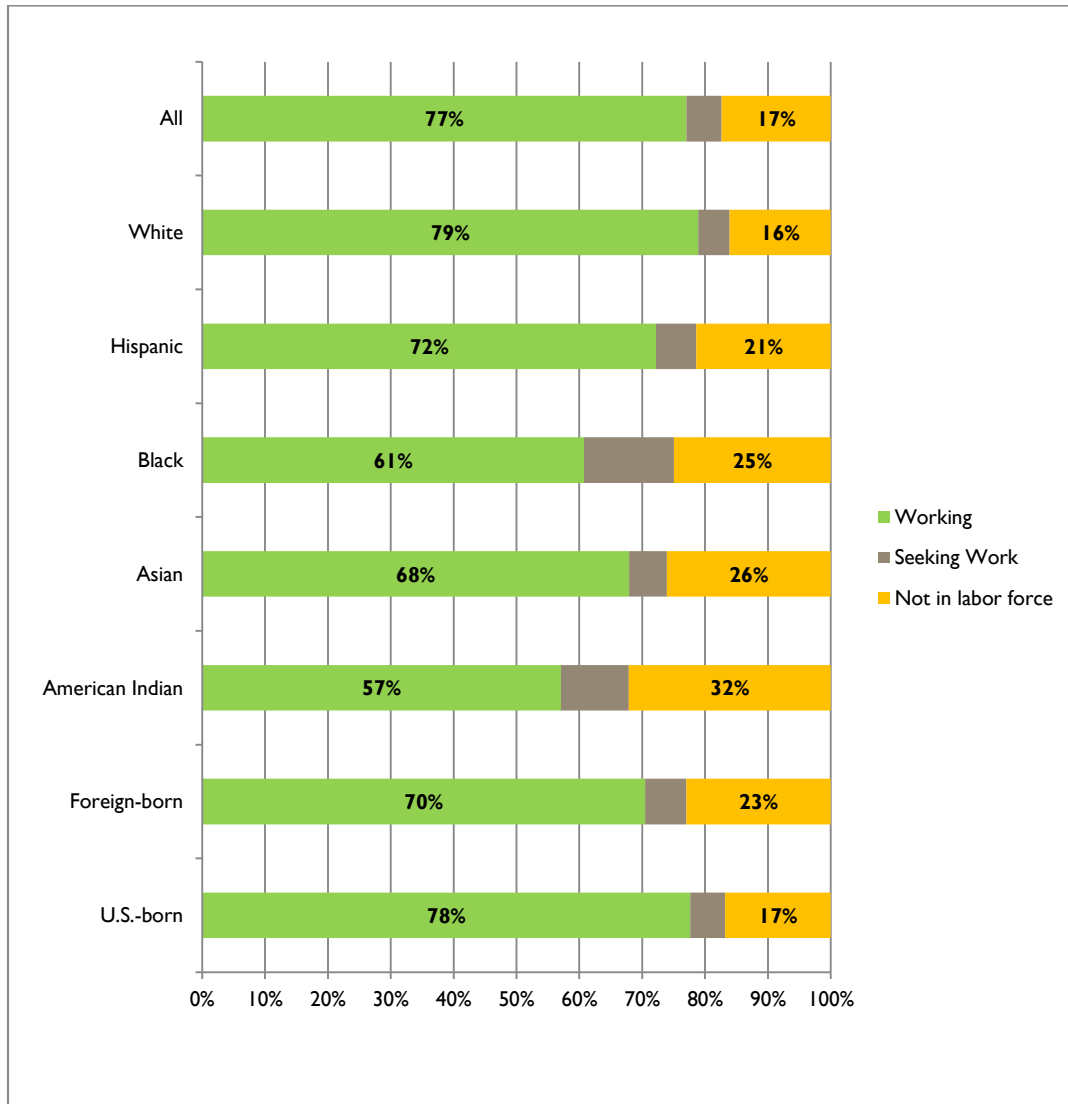
---

<sup>8</sup> Data are from 2007-2011. This migration analysis does not include numbers of Minnesotans who may have left the state for another country, as the Census Bureau does not collect data for that population.



to be considered part of the labor force. Those who have been unemployed for long spells may decide to forgo their search and leave the labor force.

**Figure 13: Labor force status of the 16-64 population by race and nativity, Minnesota, 2007-2011**



Source: IPUMs version of the U.S. Census Bureau, 2007-2011 American Community Survey.  
 Note: All race categories are non-Hispanic, excepting Hispanic. Race categories include those who designated that race alone or in combination with another race(s). Data exclude the institutionalized population. Sampling error exists for these estimates but is not shown.

The answer to the question of whether individuals currently outside of the labor force may be brought back in lies in whether they have other barriers to working beyond simply the availability of a job. Potential workers may experience challenges related to transportation, stable housing, child care arrangements, health issues or disabilities. They may be enrolled in school or have caregiving responsibilities that are full-time and therefore do not desire to work. They may have skills that have depreciated and have less value to today’s employers, or they may have acquired few skills to begin with.

While discussing emerging labor force needs, we do not wish to minimize the real hardship experienced by many of those who are either unemployed or those who have left the labor force due to discouraging conditions. Rather, this report seeks to detail powerful demographic trends that are changing, which — to the extent that workers hold skills desired by employers — will serve to pull additional workers into the labor force and offer relief to the unemployed. Furthermore, the growing demand for labor will make for a better value proposition for workers who are returning to school or training programs to gain skills that will make them more employable.

Many foreign-born residents of the state have come to Minnesota in search of a better life, often with employment prospects at the center of their story. With this in mind, we briefly examine the labor force status of Minnesota’s current foreign-born populations.

### Minnesota’s current foreign-born workers

As many immigrants have come to Minnesota in search of job opportunities, it should come as no surprise that they are clustered among the working-age: Sixty percent of the entire foreign-born population in Minnesota is in the prime working years of 25-54, compared to 40% of the U.S.-born population living in the state.<sup>11</sup>

Among Minnesota’s current labor force participants (age 16 or older), foreign-born workers comprise 8%. These workers number about 241,000. About 55% are not citizens, while the remaining 45% are naturalized citizens. Table I shows the distribution of Minnesota’s foreign-born workforce by country of birth. Mexico exports the most labor to Minnesota, as nearly 1 in 5 foreign-born workers in Minnesota is from Mexico, representing about 47,000 labor force participants.

The nearly 22,000 foreign-born Hmong workers comprise 9% of our foreign-born labor force, while Indian, Vietnamese and Somali immigrants each account for roughly 5-6% and more than 11,000 workers apiece.

**Table I: Foreign-born workers (16+) in Minnesota’s labor force by birthplace, 2007-2011**

Birthplace	Approximate number in the labor force	Approximate share of foreign-born labor force
TOTAL	241,100	100%
Mexico	46,900	19%
Hmong (born in Laos or Thailand)	21,600	9%
India	15,200	6%
Vietnam	11,700	5%
Somalia	11,300	5%
Liberia	9,200	4%
Ethiopia	9,000	4%
Korea	7,900	3%
Canada	7,000	3%
China	5,600	2%
Philippines	5,000	2%
Ecuador	4,400	2%
El Salvador	4,100	2%
Nigeria	3,700	2%
Kenya	3,500	1%
Germany	3,200	1%
All other countries or unspecified	71,800	30%

Source: IPUMS version of the U.S. Census Bureau, 2007-2011 American Community Survey. Notes: Hmong individuals were identified using language. Sampling error exists for these estimates, but is not shown. Contact the MN State Demographic Center for more information regarding error.

In a bifurcated fashion, Minnesota's immigrants are concentrated in both low-wage and high-wage industries in Minnesota, located in jobs or geographies where sufficient numbers of qualified native-born residents are difficult to attract. According to the Federal Reserve Bank of Minneapolis, "Industries in which foreign workers are in high demand include food processing, agriculture, information technology and health care. Demand is especially acute in rural areas with low unemployment or that are off the beaten path for doctors and other sought-after professionals."<sup>12</sup> Dairy farming is an example of an industry for which immigrant labor is indispensable. Roger Scheibe, executive director of South Dakota Dairy Producers estimates that 60 percent of that state's milk production results from cows milked by foreign labor.<sup>13</sup>

Numerous economic studies have sought to assess the role that immigrant labor may play in displacing U.S.-born workers or depressing their wages. (See the October 2013 edition of the *fedgazette* for a balanced summary of the research literature on this topic.<sup>14</sup>) The majority of studies find that while there is a modest negative impact, mostly on lower-skilled workers, for most U.S. workers the benefits of foreign workers in the labor market outweigh the costs and result in an increased standard of living for native workers. Reason cited for these net benefits include increased specialization of labor (with those with limited English assigned mainly to manual tasks) resulting in production efficiency and output; immigrants' contributions to innovation and entrepreneurship, that spur additional job creation that benefits native workers as well; and the increased aggregate demand that results from immigrant workers as consumers. In a September 2013 report, *The Economic Contributions of Immigrants in Minnesota*, the Minnesota Chamber of Commerce also note the significant export and investment opportunities that immigrants bring via their connection to global networks and cultural understanding necessary to successfully do business in foreign markets.<sup>15</sup> On the whole, the research to date supports the conclusion that foreign workers supplement rather than supplant the contributions of U.S.-born workers. As has been illustrated, the coming demographic trends will only heighten our need for immigrant labor.

### **Characteristics of the five largest groups of foreign-born workers**

As the foreign-born Mexican, Hmong, Indian, Somali and Vietnamese populations are the largest immigrant groups in Minnesota, and also supply the greatest numbers of workers to our state's labor force, this section briefly examines the labor force status of these populations. The working-age populations of Minnesota's five largest immigrant groups differ not only in their reasons and timing of immigration, but also in their group characteristics, including age distributions, years in the U.S., educational attainment, and English language skills. (These characteristics will be explored more fully in a future brief to be released by the MN State Demographic Center.)

It is worth noting that Minnesota's Indian immigrants are unique among our immigrant populations by virtue of being extremely well educated, with fully half of them over age 25 holding an advanced degree (master's, PhD or professional degree) and an additional 44 percent possessing a bachelor's degree.<sup>16</sup> Many of these immigrants are workers who have come to the U.S. via the H1-B visa program for specialty occupations — often in medicine, finance, engineering or technology fields. H1-B visa holders must have completed a bachelor's or higher degree.<sup>17</sup> This class of visas grants stays for up to three years, and may be extended up to six years. H1-B visa holders can also apply for lawful permanent residency (green cards), allowing them to live and work in the United States permanently, although the process often takes many years.

Wide variation exists in the labor force participation among these five major immigrant groups, as well as differing patterns by gender, as shown in Table 2.

**Table 2: Labor force status of the typical working-age (16-64) population among Minnesota's five largest immigrant groups, by sex, 2007-2011**

		Working	Seeking work	Not in labor force
Foreign-born Mexican	Male	89%	3%	8%
	Female	57%	3%	40%
	Total	75%	3%	22%
Foreign-born Somali	Male	41%	29%	30%
	Female	54%	5%	40%
	Total	49%	15%	36%
Foreign-born Indian	Male	93%	7%	0%
	Female	37%	11%	52%
	Total	66%	9%	25%
Foreign-born Hmong	Male	70%	6%	24%
	Female	54%	5%	41%
	Total	62%	6%	33%
Foreign-born Vietnamese	Male	78%	11%	11%
	Female	69%	1%	30%
	Total	74%	7%	19%

Source: IPUMS version of the U.S. Census Bureau, 2007-2011 American Community Survey.

Notes: "Seeking work" percentages shown relate to the share of the total civilian, non-institutionalized population age 16-64 that is actively seeking work. It does not exclude the "not in the labor force" population in its calculation, as the "unemployment rate" is commonly reported. Thus, percentages for working, seeking work, and not in the labor force sum to 100% of the civilian, non-institutionalized population of typical working-age. Sampling error exists for these estimates, but is not shown. Contact the MN State Demographic Center for more information regarding error.

Most notably, 100 percent of the male Indian immigrants are participating in the labor force, while more than half of Indian women are not. As the H1-B visa program allows workers to bring their spouses (and dependents) to the U.S. but does not permit them to work, this may also indicate that some of these women are spouses of H1-B visa workers<sup>18</sup>. An additional explanation may be that more than half of this group is in the age cohort of 25- to 34-year-olds<sup>19</sup> and therefore, many of these women may have young children in the home and choose to remain at home rather than participate in the labor force, particularly if the family income is comfortably high.

Mexican men also exhibit high levels of labor force participation (92% working or seeking work), followed by Vietnamese men (89%). The Somali immigrant men who are part of the labor force are most likely to struggle to

find employment — as evidenced by 29% of this group yet seeking work. Additional culturally specific workforce strategies for this population should be explored.

Among these five groups, Vietnamese women are the most likely group of women to be participating in the labor force (69%). Forty percent or more of Mexican, Somali and Hmong immigrant women of typical working age are not participating in the labor force. This may point to the need for more gender-specific and cultural-specific strategies to better integrate these immigrant women into Minnesota’s labor force. If young children are present in the home, labor force participation may not be desired, or the cost of child care necessary to enter the labor force may be prohibitive to participating.

As with the U.S.-born population, greater labor force participation and success in finding employment is strongly correlated with rising levels of education among Minnesota’s immigrant groups (see Table 3).

**Table 3: Labor force status of the typical working-age (16-64) population among Minnesota’s five largest immigrant groups, by attainment of a high school diploma, 2007-2011**

		Working	Seeking work	Not in labor force
Foreign-born Mexican	With HS diploma	79%	3%	18%
	No HS diploma	71%	3%	26%
	Total	75%	3%	22%
Foreign-born Somali	With HS diploma	58%	15%	27%
	No HS diploma	31%	17%	52%
	Total	49%	15%	36%
Foreign-born Indian	With HS diploma	67%	9%	24%
	No HS diploma	5	5	5
	Total	66%	9%	25%
Foreign-born Hmong	With HS diploma	76%	5%	19%
	No HS diploma	33%	7%	60%
	Total	62%	6%	33%
Foreign-born Vietnamese	With HS diploma	77%	7%	16%
	No HS diploma	57%	0%	43%
	Total	74%	7%	19%

Source: IPUMS version of the U.S. Census Bureau, 2007-2011 American Community Survey.

Notes: “Seeking work” percentages shown relate to the share of the total civilian, non-institutionalized population age 16-64 that is actively seeking work. It does not exclude the “not in the labor force” population in its calculation, as the “unemployment rate” is commonly reported. Thus, percentages for

working, seeking work, and not in the labor force sum to 100% of the civilian, non-institutionalized population of typical working-age. Sampling error exists for these estimates, but is not shown. Contact the MN State Demographic Center for more information regarding error. "S" indicates a small number—i.e., too few individuals in this group to show a reliable percentage.

Among all five immigrant groups, lacking a high school diploma makes it substantially more likely that individuals will not be participating in the labor force. The presence of a high school diploma as a minimum level of education serves to roughly *double* the employment rates for Hmong and Somali immigrants. Notably, however, lacking a high school education results only a slight employment penalty among Minnesota's foreign-born Mexican immigrants relative to their peers.

These data sketch a description of the characteristics of our largest immigrant populations and some of their contributions to, and challenges associated with, labor force participation. Higher levels of education, skills training in industries with current and emerging labor shortages, and growing English proficiency will likely result in greater participation, so we would be wise to further assist our immigrant populations in gaining these skills. Given the high share of Minnesota's immigrant women outside of the labor force, it would be helpful to know what share of this nonparticipation is related to choices related to childrearing versus other barriers to work that might be overcome with assistance.

Obviously, there are many U.S.-born descendants of these foreign-born residents who are of working-age already. Labor force participation rates, educational attainment, and other measures of economic integration and success typically rise with second- or third-generation immigrants, although data limitations do not allow us to assess this for Minnesota's immigrant populations. Nonetheless, these immigrants, their children, and the immigrants to follow in their footsteps by virtue of choosing Minnesota as their home will play an increasingly important role as participants in Minnesota's labor force, productive workers, creators of economic output, and workers providing tax revenues and services to benefit the state as a whole.

### **Changes we can make to improve our labor force growth outlook**

As this paper has shown, Minnesota is facing a new future in which its labor force will grow more slowly, workers will be in greater demand, and the role of immigration will become far more important. While long-term projections are subject to future changes in the number of births, deaths and migration, it is inarguable that Minnesota faces a much different labor landscape in the coming decades. Given this, Minnesota policymakers, as well as business and community members should make choices to build a strong labor force — both in numbers and in skills preparation — to preserve a high quality of life for Minnesotans. While specific policy recommendations are beyond the purview of this office, the results of these analyses suggest that, broadly speaking, Minnesota should:

- Expand state-level efforts to make Minnesota more attractive to domestic migrants and international immigrants, and welcoming of these groups in the workplace as well as at the community and neighborhood level.
- Focus upon the labor force participation of groups less represented currently, redoubling efforts in the areas of adult basic education, English language learning for non-native speakers, skills and credential training. Help groups with less labor force attachment, including discouraged and dislocated workers, to re-enter the labor force.

- Create more flexible working arrangements including part-time offerings and job sharing to induce more workers who do not have full-time availability, as well as older workers seeking a phased retirement, to participate in the labor force.
- Improve the educational and skills pipeline for our young people who will become our new entrants to the workforce, especially among our fast-growing populations of color who have poorer educational outcomes and less educational attainment.
- Better align post-secondary training programs with the needs of the emerging economy, and continue to acquaint students, parents, high schools, higher education institutions, and businesses with those occupations expecting high growth and/or high replacement needs in the coming decades.
- Consider various public policy changes that will result in additional flows of workers for industries and occupations that are dependent upon them.

## **Conclusion**

Minnesota stands at a unique point in its history, where the demographic trends of an aging population and declining fertility are conspiring to dramatically slow its labor force growth, threatening to put a drag on our economic output. In the coming decades, greater numbers of migrants, both domestic and international, will be necessary to meet our state's work force needs and to buttress economic activity. In addition to developing, attracting and retaining talented workers, Minnesota will need to leverage greater contributions and productivity from all of our state's potential workers to manage this new demographic and economic reality, and maintain a high quality of life for Minnesota residents.

**APPENDIX A: Projected labor force participation rates for Minnesota by age group and gender to 2045**

<b>TOTAL</b>	<b>2010</b>	<b>2011</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Age 16 to Age 19	51%	51%	49%	47%	45%	43%	41%	40%	38%
Age 20 to Age 21	77%	77%	76%	75%	74%	73%	72%	71%	70%
Age 22 to Age 24	84%	84%	84%	84%	84%	84%	84%	84%	84%
Age 25 to Age 29	88%	88%	88%	88%	88%	89%	89%	89%	90%
Age 30 to Age 34	88%	88%	88%	88%	89%	89%	90%	90%	90%
Age 35 to Age 44	88%	88%	88%	88%	88%	88%	88%	88%	87%
Age 45 to Age 54	88%	88%	88%	89%	89%	89%	90%	90%	91%
Age 55 to Age 59	80%	81%	82%	84%	86%	87%	88%	89%	90%
Age 60 to Age 61	71%	71%	73%	76%	78%	79%	80%	81%	81%
Age 62 to Age 64	54%	55%	57%	59%	61%	64%	66%	68%	71%
Age 65 to Age 69	32%	32%	30%	32%	33%	36%	37%	39%	40%
Age 70 to Age 74	19%	19%	20%	21%	22%	24%	25%	26%	27%
Age 75 plus	6%	6%	6%	6%	6%	6%	6%	6%	6%
<b>FEMALES</b>	<b>2010</b>	<b>2011</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Age 16 to Age 19	54%	53%	52%	50%	48%	46%	44%	43%	41%
Age 20 to Age 21	80%	80%	79%	78%	77%	77%	76%	75%	74%
Age 22 to Age 24	84%	84%	84%	85%	86%	86%	87%	87%	88%
Age 25 to Age 29	85%	86%	86%	87%	87%	88%	89%	90%	90%
Age 30 to Age 34	83%	84%	84%	85%	86%	87%	88%	89%	90%
Age 35 to Age 44	83%	83%	83%	83%	83%	83%	83%	83%	84%
Age 45 to Age 54	85%	85%	85%	86%	86%	87%	87%	88%	88%
Age 55 to Age 59	77%	78%	80%	83%	85%	87%	89%	90%	91%
Age 60 to Age 61	67%	68%	72%	77%	80%	83%	85%	87%	87%
Age 62 to Age 64	51%	52%	55%	58%	62%	65%	69%	72%	76%
Age 65 to Age 69	29%	29%	31%	33%	35%	37%	40%	42%	44%
Age 70 to Age 74	15%	16%	17%	18%	20%	21%	22%	24%	25%
Age 75 plus	4%	4%	4%	4%	4%	4%	5%	5%	5%
<b>MALES</b>	<b>2010</b>	<b>2011</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Age 16 to Age 19	49%	48%	46%	44%	42%	41%	39%	37%	35%
Age 20 to Age 21	74%	74%	73%	72%	71%	70%	69%	68%	67%
Age 22 to Age 24	85%	85%	84%	84%	83%	82%	82%	81%	80%
Age 25 to Age 29	90%	90%	90%	89%	89%	89%	89%	89%	89%
Age 30 to Age 34	92%	92%	92%	92%	91%	91%	91%	91%	91%
Age 35 to Age 44	93%	93%	93%	92%	92%	92%	92%	91%	91%
Age 45 to Age 54	91%	91%	91%	92%	92%	92%	92%	92%	93%
Age 55 to Age 59	84%	84%	84%	85%	86%	87%	88%	89%	90%
Age 60 to Age 61	74%	74%	74%	74%	75%	75%	75%	76%	76%
Age 62 to Age 64	57%	58%	59%	60%	61%	62%	64%	65%	66%
Age 65 to Age 69	35%	36%	37%	39%	40%	42%	43%	45%	47%
Age 70 to Age 74	22%	23%	23%	24%	25%	26%	27%	28%	30%
Age 75 plus	9%	9%	9%	9%	9%	8%	8%	8%	8%

Source: U.S. Census Bureau, decennial census (2010) and American Community Survey (2011). Subsequent years are projections by the MN State Demographic Center.



**APPENDIX B: Projected number of individuals participating in the labor force in Minnesota by age group and gender to 2045**

<b>TOTAL</b>	<b>2010</b>	<b>2011</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Age 16 to Age 19	149,898	147,115	138,099	134,015	130,922	127,497	125,905	120,994	116,175
Age 20 to Age 21	110,911	109,934	110,835	106,824	108,323	103,653	109,638	108,912	107,618
Age 22 to Age 24	179,298	178,454	187,215	179,074	179,777	186,261	186,019	192,950	193,259
Age 25 to Age 29	327,817	330,039	312,706	324,712	314,424	319,977	324,261	334,653	344,589
Age 30 to Age 34	302,949	313,549	331,128	315,527	328,755	319,163	325,290	329,900	340,424
Age 35 to Age 44	595,766	588,714	589,048	633,419	644,174	639,923	641,371	635,380	643,067
Age 45 to Age 54	710,479	706,128	663,693	596,791	594,492	643,947	658,792	658,189	662,896
Age 55 to Age 59	282,921	291,767	325,269	330,954	293,686	276,570	298,720	330,514	317,662
Age 60 to Age 61	85,426	89,577	105,690	120,598	115,649	108,381	97,665	114,902	117,679
Age 62 to Age 64	87,493	95,491	111,565	132,544	143,491	125,488	124,101	128,693	153,152
Age 65 to Age 69	65,200	67,731	91,303	117,059	138,940	145,605	133,142	129,054	143,623
Age 70 to Age 74	28,583	29,987	37,784	53,081	68,191	81,101	85,143	78,104	75,906
Age 75 plus	19,102	19,365	20,524	23,653	29,628	37,225	44,773	49,605	49,700
<b>FEMALES</b>	<b>2010</b>	<b>2011</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Age 16 to Age 19	76,767	75,420	71,155	69,225	68,018	66,225	65,336	62,715	60,318
Age 20 to Age 21	56,626	55,842	56,127	54,408	55,411	52,919	56,065	55,548	54,794
Age 22 to Age 24	87,722	87,302	91,726	87,922	89,058	93,424	93,542	97,359	97,794
Age 25 to Age 29	158,300	160,527	149,732	155,883	151,505	155,227	158,216	163,377	168,032
Age 30 to Age 34	141,503	146,492	157,117	148,329	154,984	151,135	155,287	158,687	164,210
Age 35 to Age 44	278,574	275,236	273,463	294,932	299,623	295,328	295,839	293,732	298,449
Age 45 to Age 54	342,240	340,542	318,638	285,117	282,092	306,453	313,127	310,464	312,499
Age 55 to Age 59	136,324	141,126	158,069	161,215	143,550	134,794	144,921	162,033	153,255
Age 60 to Age 61	40,998	43,192	51,867	60,627	58,741	55,535	50,306	58,854	61,177
Age 62 to Age 64	42,121	46,223	53,721	64,454	70,656	62,670	62,300	65,219	79,054
Age 65 to Age 69	30,484	31,665	42,219	53,503	63,715	66,893	61,453	59,559	66,258
Age 70 to Age 74	12,607	13,232	16,500	22,947	29,260	35,042	36,937	34,085	33,126
Age 75 plus	7,373	7,532	8,270	9,414	11,497	14,352	17,597	20,219	21,255
<b>MALES</b>	<b>2010</b>	<b>2011</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Age 16 to Age 19	73,131	71,695	66,944	64,790	62,904	61,272	60,569	58,279	55,857
Age 20 to Age 21	54,285	54,091	54,708	52,416	52,912	50,734	53,573	53,364	52,824
Age 22 to Age 24	91,576	91,152	95,489	91,152	90,719	92,837	92,477	95,591	95,465
Age 25 to Age 29	169,517	169,512	162,974	168,829	162,919	164,750	166,045	171,276	176,557
Age 30 to Age 34	161,446	167,057	174,011	167,198	173,771	168,028	170,003	171,213	176,214
Age 35 to Age 44	317,192	313,478	315,585	338,487	344,551	344,595	345,532	341,648	344,618
Age 45 to Age 54	368,239	365,586	345,055	311,674	312,400	337,494	345,665	347,725	350,397
Age 55 to Age 59	146,596	150,641	167,200	169,739	150,136	141,776	153,799	168,481	164,407
Age 60 to Age 61	44,428	46,385	53,823	59,971	56,908	52,846	47,359	56,048	56,502
Age 62 to Age 64	45,373	49,268	57,844	68,090	72,835	62,818	61,801	63,474	74,098
Age 65 to Age 69	34,716	36,066	49,084	63,556	75,225	78,712	71,689	69,495	77,365
Age 70 to Age 74	15,976	16,756	21,284	30,134	38,931	46,059	48,206	44,019	42,780
Age 75 plus	11,729	11,833	12,254	14,239	18,131	22,873	27,176	29,386	28,445

Source: U.S. Census Bureau, decennial census (2010) and American Community Survey (2011). Subsequent years are projections by the MN State Demographic Center.

## APPENDIX C: Population projections for Minnesota by age groups and gender to 2065

TOTAL	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065
0 to 15	1,148,621	1,168,225	1,183,041	1,197,120	1,200,596	1,209,282	1,224,766	1,243,814	1,260,788	1,273,475	1,282,685
16 to 19	282,190	285,438	290,594	295,016	303,729	304,312	304,579	306,276	310,568	316,177	320,888
20 to 21	146,057	142,503	146,288	141,751	151,806	152,713	152,809	152,948	154,498	156,929	159,705
22 to 24	221,880	212,363	213,315	221,102	220,951	229,328	229,850	229,939	230,919	234,100	238,136
25 to 29	355,893	368,774	356,159	361,324	364,828	374,955	384,297	384,760	384,930	387,532	392,931
30 to 34	376,132	356,734	370,150	357,895	363,324	367,012	377,207	386,441	386,847	387,078	389,452
35 to 44	671,251	722,349	735,012	730,336	732,422	726,101	735,458	749,113	768,409	778,171	778,389
45 to 54	750,896	672,402	667,012	719,686	733,328	729,624	731,930	725,404	734,314	747,978	766,906
55 to 59	394,731	393,256	342,598	317,493	338,225	369,860	352,074	365,983	354,069	359,471	362,690
60 to 61	144,201	159,453	149,118	137,043	121,725	141,914	144,449	140,236	143,350	140,319	144,215
62 to 64	196,973	224,730	234,057	197,202	188,178	188,499	216,785	203,491	213,904	205,361	206,533
65 to 69	268,926	326,139	367,718	367,019	320,446	297,160	317,026	346,310	329,494	342,506	331,214
70 to 74	188,999	249,927	303,379	342,391	341,728	298,622	276,791	295,485	322,514	306,917	318,846
75 plus	351,183	395,289	483,178	597,223	712,443	786,419	786,909	751,207	734,438	750,575	755,806
Total	5,497,933	5,677,582	5,841,619	5,982,601	6,093,729	6,175,801	6,234,930	6,281,407	6,329,042	6,386,589	6,448,396
FEMALES	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065
0 to 15	561,409	570,334	575,333	580,378	580,882	584,611	591,524	599,548	606,105	610,625	613,890
16 to 19	137,875	139,390	142,327	144,005	147,638	147,268	147,191	147,988	149,997	152,387	154,130
20 to 21	70,955	69,514	71,550	69,059	73,944	74,041	73,814	73,855	74,596	75,691	76,806
22 to 24	108,591	103,359	103,965	108,309	107,701	111,332	111,072	110,926	111,382	112,883	114,612
25 to 29	173,934	179,621	173,181	176,028	178,006	182,378	186,121	185,554	185,421	186,650	189,137
30 to 34	186,350	174,097	180,036	173,777	176,750	178,816	183,211	186,891	186,293	186,188	187,304
35 to 44	330,172	355,592	360,739	355,067	355,180	352,154	357,305	363,642	371,625	374,741	373,828
45 to 54	373,172	331,932	326,462	352,550	358,090	352,938	353,143	350,048	354,956	361,266	369,025
55 to 59	196,827	194,431	168,560	154,851	163,621	180,572	169,280	175,370	169,368	172,290	174,093
60 to 61	71,649	78,932	73,011	66,647	58,887	67,840	70,069	66,867	67,905	66,748	68,789
62 to 64	98,340	110,916	114,712	96,301	90,868	90,526	104,669	96,858	101,679	97,059	97,751
65 to 69	136,149	161,330	180,405	178,516	155,084	142,553	150,813	166,297	155,778	161,374	155,784
70 to 74	97,802	125,782	149,165	166,964	165,190	143,624	131,953	139,687	153,908	144,181	149,278
75 plus	212,826	231,428	270,520	323,797	381,331	421,513	426,897	412,121	401,270	405,100	403,319
Total	2,756,051	2,826,658	2,889,966	2,946,249	2,993,172	3,030,166	3,057,062	3,075,652	3,090,283	3,107,183	3,127,746
MALES	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065
0 to 15	587,212	597,891	607,708	616,742	619,714	624,671	633,242	644,266	654,683	662,850	668,795
16 to 19	144,315	146,048	148,267	151,011	156,091	157,044	157,388	158,288	160,571	163,790	166,758
20 to 21	75,102	72,989	74,738	72,692	77,862	78,672	78,995	79,093	79,902	81,238	82,899
22 to 24	113,289	109,004	109,350	112,793	113,250	117,996	118,778	119,013	119,537	121,217	123,524
25 to 29	181,959	189,153	182,978	185,296	186,822	192,577	198,176	199,206	199,509	200,882	203,794
30 to 34	189,782	182,637	190,114	184,118	186,574	188,196	193,996	199,550	200,554	200,890	202,148
35 to 44	341,079	366,757	374,273	375,269	377,242	373,947	378,153	385,471	396,784	403,430	404,561
45 to 54	377,724	340,470	340,550	367,136	375,238	376,686	378,787	375,356	379,358	386,712	397,881
55 to 59	197,904	198,825	174,038	162,642	174,604	189,288	182,794	190,613	184,701	187,181	188,597
60 to 61	72,552	80,521	76,107	70,396	62,838	74,074	74,380	73,369	75,445	73,571	75,426
62 to 64	98,633	113,814	119,345	100,901	97,310	97,973	112,116	106,633	112,225	108,302	108,782
65 to 69	132,777	164,809	187,313	188,503	165,362	154,607	166,213	180,013	173,716	181,132	175,430
70 to 74	91,197	124,145	154,214	175,427	176,538	154,998	144,838	155,798	168,606	162,736	169,568
75 plus	138,357	163,861	212,658	273,426	331,112	364,906	360,012	339,086	333,168	345,475	352,487
Total	2,741,882	2,850,924	2,951,653	3,036,352	3,100,557	3,145,635	3,177,868	3,205,755	3,238,759	3,279,406	3,320,650

Source: MN State Demographic Center.

**APPENDIX D: Historical labor force participation rates for Minnesota by age and gender, 1980-2010**

<b>TOTAL</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
Age 16-19	58%	60%	62%	50%
Age 20-21	77%	78%	81%	79%
Age 22-24	82%	85%	85%	84%
Age 25-29	83%	88%	87%	88%
Age 30-34	81%	87%	87%	88%
Age 35-44	82%	88%	87%	88%
Age 45-54	78%	86%	87%	88%
Age 55-59	69%	73%	76%	80%
Age 60-61	61%	59%	62%	70%
Age 62-64	45%	41%	45%	55%
Age 65-69	23%	24%	28%	31%
Age 70-74	15%	12%	17%	19%
Age 75+	6%	5%	7%	6%
<b>FEMALES</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
Age 16-19	57%	60%	64%	53%
Age 20-21	74%	78%	81%	83%
Age 22-24	76%	82%	82%	83%
Age 25-29	72%	83%	83%	86%
Age 30-34	66%	80%	82%	84%
Age 35-44	68%	82%	83%	83%
Age 45-54	63%	78%	84%	85%
Age 55-59	52%	62%	70%	77%
Age 60-61	45%	47%	55%	67%
Age 62-64	34%	34%	40%	52%
Age 65-69	17%	19%	24%	27%
Age 70-74	9%	9%	13%	14%
Age 75+	2%	3%	4%	3%
<b>MALES</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
Age 16-19	60%	59%	60%	47%
Age 20-21	79%	78%	81%	75%
Age 22-24	88%	88%	88%	84%
Age 25-29	94%	94%	90%	90%
Age 30-34	96%	95%	92%	91%
Age 35-44	96%	95%	92%	92%
Age 45-54	93%	93%	91%	92%
Age 55-59	87%	83%	82%	82%
Age 60-61	76%	70%	69%	73%
Age 62-64	56%	49%	51%	58%
Age 65-69	30%	29%	32%	35%
Age 70-74	20%	16%	22%	24%
Age 75+	9%	7%	10%	8%

Source: U.S. Census Bureau, decennial census.

## Citations

- <sup>1</sup> IPUMS version of U.S. Census Bureau, 2007-2011 American Community Survey 5-year estimates. <https://www.ipums.org>
- <sup>2</sup> U.S. Census Bureau, 2012 National Population Projections. <http://www.census.gov/population/projections/data/national/2012.html> and <http://blogs.census.gov/2012/12/12/what-a-difference-four-years-make-u-s-population-projected-to-grow-at-a-slower-pace-over-the-next-five-decades/>
- <sup>3</sup> Davies, Phil. "Labor's Changing Face." *fedgazette*, Federal Reserve Bank of Minneapolis, October 2013. [http://www.minneapolisfed.org/publications\\_papers/pub\\_display.cfm?id=5186](http://www.minneapolisfed.org/publications_papers/pub_display.cfm?id=5186)
- <sup>4</sup> Toosi, Mitra. "Employment Outlook: 2006-16. Labor Force Projections to 2016: more workers in their golden years." *Monthly Labor Review*, U.S. Bureau of Labor Statistics, November 2007. <http://www.bls.gov/opub/mlr/2007/11/art3full.pdf>
- <sup>5</sup> U.S. Census Bureau, 2007-2012 American Community Survey 1-year estimates. Retrieved via American FactFinder. <http://factfinder2.census.gov/>
- <sup>6</sup> U.S. Census Bureau, decennial census.
- <sup>7</sup> Toosi, Mitra. "Projections of the labor force to 2050: A visual essay." *Monthly Labor Review*, U.S. Bureau of Labor Statistics, October 2012. <http://www.bls.gov/opub/mlr/2012/10/art1full.pdf>
- <sup>8</sup> U.S. Centers for Disease Control and Prevention. *State-Specific Healthy Life Expectancy at Age 65 Years — United States, 2007–2009. Morbidity and Mortality Weekly Report*. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6228a1.htm?s\\_cid=mm6228a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6228a1.htm?s_cid=mm6228a1_w)
- <sup>9</sup> IPUMS version of U.S. Census Bureau, 2007-2011 American Community Survey 5-year estimates. <https://www.ipums.org>
- <sup>10</sup> Ibid.
- <sup>11</sup> U.S. Census Bureau, 2009-2011 American Community Survey. Retrieved via American FactFinder. <http://factfinder2.census.gov/>
- <sup>12</sup> Davies, Phil. "Labor's Changing Face." *fedgazette*, Federal Reserve Bank of Minneapolis, October 2013. [http://www.minneapolisfed.org/publications\\_papers/pub\\_display.cfm?id=5186](http://www.minneapolisfed.org/publications_papers/pub_display.cfm?id=5186)
- <sup>13</sup> Ibid.
- <sup>14</sup> Ibid.
- <sup>15</sup> Corrie, Bruce, and Radosevich, Sarah. "The Economic Contributions of Immigrants in Minnesota." Minnesota Chamber of Commerce, Sept. 2013. [http://cdn2.hubspot.net/hub/172912/file-371412567-pdf/Economic\\_Contributions\\_of\\_Immigrants\\_in\\_Minnesota\\_2013.pdf](http://cdn2.hubspot.net/hub/172912/file-371412567-pdf/Economic_Contributions_of_Immigrants_in_Minnesota_2013.pdf)
- <sup>16</sup> IPUMS version of U.S. Census Bureau, 2007-2011 American Community Survey 5-year estimates. <https://www.ipums.org>
- <sup>17</sup> "H-1B Specialty Occupations, DOD Cooperative Research and Development Project Workers, and Fashion Models," U.S. Citizenship and Immigration Services. <http://www.uscis.gov/working-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-specialty-occupations-dod-cooperative-research-and-development-project-workers-and-fashion-models>
- <sup>18</sup> Ibid.
- <sup>19</sup> IPUMS version of U.S. Census Bureau, 2007-2011 American Community Survey 5-year estimates. <https://www.ipums.org>

## Note

Numerous figures in this report cite IPUMS version of the U.S. Census Bureau's American Community Survey. IPUMS refers to the Integrated Public Use Microdata Series. 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.