

# Brighter ideas for Minnesota's future

On talent and innovation, our state has fallen behind. Here's how we can re-energize.

By Robert H. Bruininks and Steven J. Rosenstone | NOVEMBER 30, 2018 — 7:14PM

Like most Minnesotans, we are proud of our state and all that makes it one of the best places in America to live, work and raise a family.

At the same time, we are deeply concerned that Minnesota is falling woefully behind in its ability to deliver the talented workforce and innovation that are key to economic vitality and quality of life.

Minnesota must regain its competitive edge. We urge our new governor, new Legislature and new higher education leaders to work together to avert a looming crisis.

## The talent crisis

Minnesota's workforce has long been among the state's competitive advantages. But talent development has not kept pace with the demands of the global economy. The number one challenge facing businesses of every size, sector and region is the shortage of skilled talent needed to fill Minnesota's 142,000 open positions.

This talent shortage threatens productivity and the creation, attraction and growth of businesses. We must act to counter several ominous trends:

- As businesses struggle to replace nearly 1 million baby boomers who are retiring, Minnesota's population growth will fall to a historic low.
- The number of high school graduates has declined, and nearly one-third of those who do graduate do not go on to college the following fall. Of those who attend college, fully one-fifth leave the state to do so — outnumbering students who come to Minnesota from other states. Many who leave will never return.
- Today's pre-K-through-12 students are our future workforce. And Minnesota is heading for trouble. Only 60 percent of Minnesota students meet the state's standards for reading proficiency, with no improvement over the past 12 years. Only 57 percent are math-proficient — a decline over the years. While the four-year graduation rate has inched up, 17 percent of freshmen still do not graduate high school on time, and too many who do graduate are unprepared for college.
- Minnesota's racial and economic disparities are among the worst in the nation. The achievement gap begins at birth and widens with age. Poverty and lack of access to quality preschool not only significantly reduce educational attainment, they reduce productivity by nearly 20 percent in adulthood.

Minnesota students of color have math and reading proficiency scores less than one-half those of white counterparts. The state's African-American, American Indian and Hispanic students are half as likely as white and Asian counterparts to earn postsecondary certificates or degrees.

These disparities are doubly disturbing because fully 70 percent of Minnesota's population growth in the next 20 years will be people of color.

- What makes all this even more alarming is that no state in the nation needs a better-educated workforce than Minnesota. As the Georgetown University Center on Education and the Workforce has noted, by 2020 three out of four jobs in Minnesota will require postsecondary education.

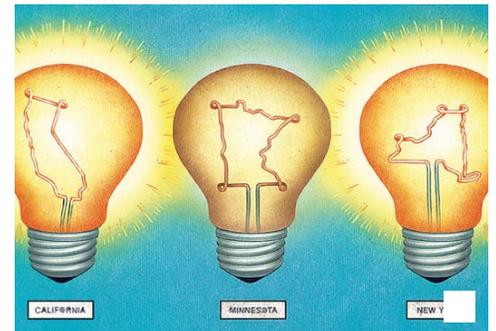


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Simply put, Minnesota is facing a demographic tsunami that threatens to turn the state's talent shortage into a crisis, unless we step up our efforts to grow, attract and retain the talent Minnesota needs to thrive. Minnesota can't afford to leave anyone behind.

#### The innovation crisis

Discoveries that lead to new products, services and companies drive economic growth. To thrive, Minnesota must be "a hothouse of innovation" that mobilizes the creative energies of its people.

Over the years, Minnesota's colleges, universities and businesses have fueled the innovation that has propelled the state's medical device industry, as well as our health care, agriculture, mining, technology and manufacturing sectors.

Minnesota has lost that creative edge, despite pockets of success. Whether ranked by investment in research and development, output of scientific knowledge in peer-reviewed articles, new patents and trademarks, new businesses or venture capital deals, Minnesota is not a top-10 state. By some measures, we're not even in the top 20. The situation isn't much better if one adjusts for population size or focuses only on the Twin Cities metro area.

The sad truth is that Minnesota has fallen behind in innovation.

#### The investment crisis

What's at risk? Everything. Given how critical talent and innovation are to the future of our state, one would assume that over the years Minnesota has been aggressively investing in these priorities. In fact, however, state investment in talent development and innovation plummeted so much over the past two decades that Minnesota now significantly trails most other states.

Back in 1994, Minnesota invested 4 percent more than the national average in education and research at our colleges and universities. By 2016, Minnesota invested 9 percent less than the average. Minnesota's per-student investment declined at twice the national rate.

Minnesota needs a renewed state vision for the development of talent and creativity, one that builds upon past successes but acknowledges the changing nature of society and workplace. As noted repeatedly over the years on the editorial pages of this newspaper, "Minnesota is eroding its capacity to raise the educational attainment of its adult population at precisely the wrong time." Referring to Minnesota as the education state is a nostalgic reference to a distant past.

#### What needs to be done?

Minnesota starts with significant assets. What's missing are long-term strategies and persistent investments to strengthen the state's competitive position. Minnesota's approach has been stopgap, the level of investment anemic compared to what's needed to keep up in a hypercompetitive global economy. Also missing is synergy. The whole is less than the sum of its parts, because Minnesota's assets are fragmented. In today's world the winners will be those who bring the pieces together in far more powerful ways.

The world's best workforce requires that our schools deliver the world's best education. The best schools in the world, OECD's Andreas Schleicher concludes, place a high stated value on education; actively engage parents and caring adults; emphasize the empowerment, collaboration and quality of local school leaders and teachers; advance clear, aspirational standards; monitor results to improve instruction and accountability; and invest more resources in children with greater needs. Minnesota must do all that, and more:

1. Minnesota must have a coordinated strategy for early childhood education. The payoffs from early ed — critical years for brain development — are enormous, particularly in programs with early engagement of parents and other caring adults.

Lifelong benefits follow for students and society. Minnesota's well-targeted early scholarships, supporting enrollment in quality programs, are the most cost-effective way to improve the results of less-advantaged students.

2. Every student must graduate high school on time, be proficient in reading, math and science, and be prepared to attend a technical or community college or university that will prepare them for the high-demand, well-paying jobs of the future.

3. We must eliminate the horrendous achievement gap that plagues Minnesota's students of color.

4. When students are academically ready, they should be able to start college early, even before high school graduation. More students should be able to explore technical careers through our technical colleges, with the added possibility of internships and apprenticeships. Other countries successfully link the resources of secondary schools, technical colleges and the private sector. We must, as well.

What must higher education do?

Work has changed and will keep changing as information technology, artificial intelligence and automation evolve. Careers of the future will require not only strong technical (especially digital) skills, but also creative problem solving, critical and analytical reasoning, teamwork, empathy, leadership, ethical judgment and the ability to apply knowledge to new settings and to communicate and work effectively across geographic and cultural boundaries. Our colleges and universities must deliver graduates with these proficiencies.

Our colleges and universities must also be hubs of creativity. They have a unique responsibility to produce the innovations required for Minnesota to compete in the global knowledge economy. Minnesota needs a more robust pipeline of talented scientists who are on the leading edge of knowledge creation and can bring pioneering solutions to market.

Higher education must also:

1. Improve quality. Good programs must become excellent; excellent programs, pre-eminent. Learning must be more active and collaborative and focused on problem solving, teamwork and the application of knowledge to pressing problems.

2. Increase collaboration with business and industry through more internships and apprenticeships as well as better guidance to students about capabilities needed for success.

3. Advance creativity, imagination and innovation. Our colleges and universities must focus on discoveries that translate into inventions to improve lives. Partnerships with industry to bring discoveries to market are essential.

4. Reduce costs and increase productivity. The steps that the University of Minnesota and Minnesota State Colleges and Universities have taken over many years to increase the effectiveness of their operations, cut administrative costs, reduce net costs to students through scholarship support and hold down tuition increases and student debt, must continue. Greater collaboration among our state's colleges and universities would also improve the overall efficiency of higher education in Minnesota.

5. Continue to improve completion rates. Current two- and four-year graduation rates are far too low. Every college student must earn the credentials or degrees needed for success. Failing to do so means lower economic return for students and the state.

Higher education's success must be measured by the quality of its graduates and the impact of its discoveries.

In all of this, business and industry must be active strategic partners with higher education, pre-K-through-12 and state government. To ensure that Minnesota has the talent and innovation it needs, business and industry must:

1. Help colleges and universities understand the skills graduates will need for success and support the programs that will deliver them.
2. Develop supply chains of talent by partnering with higher education to recruit high school students, from Minnesota and elsewhere, into priority postsecondary programs supported with scholarships, internships and apprenticeships.
3. Partner with colleges and universities to advance basic and applied research essential to fuel discovery.
4. Partner with colleges and universities to stem the exodus of high school graduates leaving Minnesota to attend college elsewhere, and actively recruit graduates of our state's colleges and universities into jobs right here in Minnesota.

#### A new Minnesota Miracle

The drastic funding cuts over the past two decades jeopardize Minnesota's position as the brainpower state. As scholar of innovation Richard Florida reminds us, "Like earlier efforts to build canals, railroads, highways and other physical infrastructure to power industrial growth, the U.S. and countries around the world must invest in their creative infrastructure if they want to succeed and prosper in the future."

Investments in the ingenuity of our people are the most important investments Minnesota can make. Our new governor and Legislature must reverse the deep cuts that were made to higher education over the past two decades. He, his commissioners and the Legislature must work with colleges and universities, businesses and communities across Minnesota to forge the sustained collaborative endeavor needed to re-energize Minnesota's economic growth.

As we approach the 50th anniversary of the "Minnesota Miracle," it's time for a new breakthrough — one that builds a bipartisan coalition to invest in our people and eliminate the racial and economic disparities that leave too many behind. It is time for clear, bold state priorities from early childhood through postsecondary and postgraduate education.

Minnesota can't afford mediocre results. Pretty good won't be good enough. New leaders can make a difference. Minnesota is counting on them.

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