

In search of innovation

Midwestern states aim to retool economies by supporting startup businesses, fostering development of new products

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In their quest to create high-paying jobs and help their states better compete globally, policymakers in this region are seeking to retool their economies and look beyond the traditional model of attracting industry to their states. Instead, they are looking to achieve growth through policies focused on developing the “knowledge,” or “innovation,” economy.

The Midwestern Office of the Council of State Governments supports several groups of state officials, including the Midwestern Governors Association and the Midwestern Legislative Conference, an association of all legislators in the region’s 11 states. The Canadian provinces of Manitoba, Ontario and Saskatchewan are affiliate members of the MLC.

Midwestern states have not kept pace with the rest of the nation on many measures of growth and prosperity. For example, a recent report by CSG Midwest and GrowthEconomics showed that the region has lagged behind the nation in terms of job creation and per-capita disposable income for the past four decades.

Furthermore, many Midwestern states have struggled when it comes to having innovative, entrepreneurial economies. The most recent State New Economy Index, produced by the Kauffman Foundation and the Information Technology and Innovation Foundation, placed eight Midwestern states in the bottom half of rankings that measure how well states are competing in the new economy. Only Minnesota (14), Illinois (16) and Michigan (17) were listed in the top half. The composite index includes factors such as the number of knowledge-economy jobs, entrepreneurial activity, access to venture capital, research and development activity, and the strength of a state’s digital and technology infrastructures.

In their quest to create high-paying jobs and help their states better compete globally, policymakers in this region are seeking to retool their economies and look beyond the traditional model of attracting industry to their states. Instead, they are looking to achieve growth through policies focused on developing the “knowledge,” or “innovation,” economy by fostering advances in technology, nurturing entrepreneurship and bringing new ideas, products and services to the marketplace.

Policymakers have a number of policy tools at their disposal to promote economic growth through innovation and entrepreneurship. On the education front, states have sought to improve their science, technology, engineering and mathematics (STEM) curricula in schools and have invested in workforce programs that emphasize the need for high-tech skills.

Policymakers have also supported local research communities — both at universities and in the private sector — and developed the physical and technological infrastructure needed for research and high-tech business development.

Other options include:

- creating tax and regulatory policies that remove barriers to business development and the commercialization of new products;
- helping attract capital investment; and
- supporting sectors that fit with the competitive strengths of state and local economies.

For example, over the past decade, Indiana policymakers have worked to make the state a leader in life sciences. Through adopting policies that promote this sector, such as creating partnerships between industry and universities, the state has developed one of the largest concentrations of life sciences jobs in the nation.

Inside, we highlight some of the approaches Midwestern states are taking to nurture their innovation economies. This issue brief focuses primarily on policies aimed at improving the states’ economic environments and the institutions that support innovation and entrepreneurship. ★

States promote private investment, university partnerships

OHIIO has experienced a loss of more than 600,000 jobs since 2000. But despite its challenges, the state has created what many consider to be one of the most comprehensive approaches in the region — if not the nation — to supporting a climate of innovation and entrepreneurship.

The Ohio Third Frontier program was originally approved in 2002 as a 10-year, \$1.6 billion bonding initiative. The state's goal has been to support technology-based economic development and to help transform the state economy into one based on innovation and entrepreneurship.

To achieve these objectives, the initiative:

- provides tax credits for seed and early-stage capital;
- invests in high-tech companies;
- creates regional incubators that help entrepreneurs commercialize their innovations and build successful businesses;
- fosters collaboration among the business community, universities and research organizations; and
- helps manufacturers diversify their businesses.

The program focuses its investments in economic areas in which the state has a competitive advantage: advanced and alternative energy; biomedical research and life sciences; advanced materials; instruments, controls and electronics; and advanced propulsion.

Ohio Third Frontier funding was scheduled to expire in 2012. However, in May, Ohio voters overwhelmingly supported a second round of funding that will allow the state to issue \$700 million in bonds in order to extend Third Frontier through 2016.

Public support is due in part to the program's demonstrated success. An independent analysis found that between 2003 and 2008, Third Frontier generated \$6.6 billion in economic activity, including more than 41,000 jobs and \$2.4 billion in employee wages and benefits. During that time, the state spent \$681 million on the program, reaping a tenfold return on its investment.

Other states in the Midwest also have reported positive results from programs that focus on investments in innovation and entrepreneurship.

Both **NORTH DAKOTA** and **SOUTH DAKOTA** have created "Centers of Excellence." Through these centers, state universities collaborate with industry on research and the commercialization of innovation. South Dakota has targeted areas such as biomass, drought mitigation and infectious disease. Partnerships between North Dakota universities and industries have focused on energy, agriculture, life sciences, electronics, aerospace and manufacturing.

South Dakota's Centers of Excellence were created five years ago with \$3 million in state funds. A state analysis found that the centers have yielded an economic gain of \$111 million. Twelve companies have expanded or been launched as a result of the centers, which have also helped create 550 new jobs and led to eight patent applications.

A similar study of North Dakota's centers found that the public investment of the first \$19.9 million resulted in a cumulative economic impact of \$329.5 million — including the creation of more than 2,000 jobs, partnerships with more than 135 companies, and 17 new or expanded businesses in the state.

When the North Dakota legislature last met in 2009, lawmakers passed several other measures in support of the state's innovation economy, including an additional \$20 million for the Centers of Excellence (SB 2018). The bill also included increased funding to support the state's technology-based entrepreneurship grant program, its entrepreneurship networking program

and business incubators. These programs all provide consulting and support services, as well as networking opportunities, for entrepreneurs in the state.

Since last session, an interim legislative committee has been exploring ways to improve the state's innovation and entrepreneurial climate. The committee's work will result in a bill next session to create "technology impact zones," which would provide financial support to localities for regional technology-based economic development efforts.

The measure would be similar to those in other states creating "certified technology parks." Typically, states provide financial assistance for local governments to develop these sites in order to attract high-tech businesses.

This year, South Dakota lawmakers passed legislation (HB 1138) to create a process through which localities may apply to the state Department of Tourism and State Development for certified technology park designation.

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States seek to attract capital for startups

Last year, this publication reported on policies being employed by Midwestern states to help encourage angel investment in young, high-growth companies. (See *Firstline Midwest*, April 2009. It can be accessed online at www.csamidwest.org.)

At that time, four Midwestern states did not have a statewide angel investment tax credit program. By this summer, that number had been cut in half with the passage of legislation in **MINNESOTA** and **ILLINOIS**. (**NEBRASKA** and South Dakota are

now the only Midwestern states without a statewide program offering tax credits for angel investment.)

In passing the 2010 legislation, Illinois and Minnesota lawmakers cited the need to be competitive with neighboring states that were already making use of these tax credits to encourage investment in entrepreneurial activity.

Minnesota now offers a 25 percent tax credit for investing in high-tech start-up companies with fewer than 25 employees and less than \$2 million in private capital. Under HF 2695/SF 2568, up to \$17 million in tax credits will be available in fiscal year 2011 and up to \$12 million per year will be offered in 2012 and 2013.

In September, the Minnesota Department of Employment and Economic Development reported that \$1.5 million in credits had been issued since the law went into effect in mid-July. The trade association Life Science Alley reported that with the assistance of the tax credits, 11 companies have been able to raise \$6 million.

Illinois lawmakers approved \$10 million in tax credits for angel investors that provide financial backing to firms in the state involved in the commercialization of new technologies. SB 2093, which takes effect on Jan. 1, will offer a 25 percent tax credit (up to \$500,000) for investments made in small technology and life-science companies.

Illinois and Minnesota are also among the 38 states nationwide that provide some form of a tax credit to encourage businesses to increase their research and development activities. (INDIANA, IOWA, KANSAS, MICHIGAN, North Dakota, Ohio and WISCONSIN also provide these tax incentives.) Minnesota's angel-investment bill increased the state's R&D tax credit from 5 percent to 10 percent.

Illinois lawmakers approved legislation (SB 3655) to extend the state's 6.5 percent R&D credit, which originally was set to expire at the end of 2009, through the end of 2010.

Another provision that would have increased the state's investment in high-tech businesses was removed before final passage. The original legislation also would have allowed a greater portion of the state's investment portfolio to be placed in funds that provide financial backing to technology businesses in the state. The allowable amount of investment would have increased from 1 percent to 2 percent of the state's portfolio.

This year in Wisconsin, lawmakers considered several bills related to job creation and high-tech development.

Lawmakers in that state approved the CORE (Connecting Opportunity, Research and Entrepreneurship) Jobs Act, which creates and expands loan and grant programs for manufacturing firms, as well as tax credits for R&D and venture-capital investment.

One provision of the bill expands the reach of Accelerate Wisconsin, a program that provides tax credits for angel and venture-capital investment. The legislation, SB 409, increased the annual tax credit by \$3.5 million. As a result, \$8.5 million in credits will be available in 2010; after 2010, the annual amount will be \$20 million.

The CORE Jobs Act also creates workforce education programs (including one that offers advanced-manufacturing

Midwestern states develop long-term plans for growth

While all Midwestern states have a number of programs in place to support entrepreneurship and innovation, some are hoping to create a more coordinated, comprehensive strategy to ensure a long-term commitment to the innovation economy.

For example, this year, the **Minnesota** Legislature created the 18-member Science and Technology Advisory Commission.

The group was created with passage of SF 2510 and met for the first time in August. It is exploring a variety of issues related to the innovation economy: improving workforce education, creating job opportunities in emerging fields such as biotechnology and renewable energy, commercializing new products and ideas, improving the availability of investment capital, and creating laws and regulations supportive of science- and technology-based businesses. The panel will present its final report to the Legislature by Jan. 15.

Nebraska's Innovation and Entrepreneurship Task Force will offer its policy recommendations to lawmakers by the end of the year. The six-member panel, which was created by the Legislature earlier this year through LB 1109, is focusing on public policies to support the state's high-growth businesses and entrepreneurs.

Iowa lawmakers, meanwhile, created the Iowa Innovation Council earlier this year. HF 2076 calls for the council to provide guidance to the state Department of Economic Development on policies that enhance innovation and entrepreneurship in high-growth industries such as advanced manufacturing, bioscience and information technology. The panel is being led by business leaders from these targeted industries as well as university leaders.

Some policymakers in Iowa hope that this advisory council will become permanent and serve a role similar to that of public-private organizations in other states, such as the **Kansas** Technology Corporation.

training) and provides grants to rehabilitate older manufacturing facilities for green-energy production.

The bill provides support for a number of initiatives at the state's universities as well, including partnerships between businesses and state academic research institutions to commercialize new products. Under the legislation, a new technology center will be created at the University of Wisconsin-La Crosse. In addition, the act aims to promote student entrepreneurship; for example, a university system-wide business plan competition will be launched. ★

Innovation economy indicators in Midwestern states

State	Patents granted (2009)	Industry R&D funding (2006)	Academic R&D funding (2007)	Science/engineering doctorates awarded (2007)	New Economy Index rank*
Illinois	2,898	\$10.8 billion	\$1.9 billion	1,519	16
Indiana	1,095	\$4.9 billion	\$802 million	807	34
Iowa	670	\$1.1 billion	\$587 million	427	42
Kansas	435	\$2.1 billion	\$376 million	259	31
Michigan	2,983	\$16.5 billion	\$1.5 billion	1,163	17
Minnesota	2,625	\$6.3 billion	\$637 million	571	14
Nebraska	193	\$447 million	\$365 million	175	27
North Dakota	82	\$120 million	\$169 million	79	39
Ohio	2,341	\$6.9 billion	\$1.8 billion	1,144	30
South Dakota	46	\$95 million	\$82 million	41	44
Wisconsin	1,467	\$3.0 billion	\$1.1 billion	650	33
U.S.	82,382	\$243.9 billion	\$49.4 billion	31,801	--

* The New Economy Index takes into account factors such as: number of knowledge-economy jobs; entrepreneurial activity; access to venture capital; research and development activity; and a state's digital and technology infrastructures.

Sources: Information Technology and Innovation Foundation, Kauffman Foundation, National Science Foundation, and U.S. Patent and Trademark Office

SOURCE GUIDE

For more information on the innovation economy, please visit the following websites:

Battelle Memorial
www.battelle.org

Ewing Marion Kauffman Foundation
www.kauffman.org

Information Technology and Innovation Foundation
www.itif.org

Innovation America
www.innovationamerica.us

National Science Foundation
www.nsf.gov

Ohio's Third Frontier
www.development.ohio.gov/ohiothirdfrontier

State Science and Technology Institute
www.ssti.org

TechAmerica Foundation
www.techamericafoundation.org

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