Moving the Middle Forward

A conference at the Minneapolis Fed looks to the economic future of the Midwest

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The past few decades have been rough on the Midwest. What was once America's dominant manufacturing region, and one of its most populous, has taken a back seat to more vital areas of the country.

While the situation might not be as dire as it's often portrayed, there is some truth to that grim picture. As warmer parts of the country have exploded in population, the Midwest has languished by comparison, losing representation in Congress. Worse, Midwestern economic growth has mirrored its population trend. Over the past 10 years, every state in the Midwest has had a lower rate of output growth than the nation as a whole. Globalization has made manufacturing cheaper in other parts of the world, and new technologies have reduced the significance of natural advantages like the Great Lakes.

There is, however, one resource that reigns supreme in the "knowledge economy," and the Midwest is rich with it: educated people. That's thanks to years of prosperity supporting an extensive network of universities, particularly the large land-grant research institutions that constitute the Big Ten.

But that invites the question: If educated workers are so abundant in the Midwest, why hasn't the problem of slower economic growth fixed itself? To understand this challenge, representatives from Midwestern universities, state and local governments, and nongovernment organizations held a conference June 26–27 at the Federal Reserve Bank of Minneapolis about the future of the region's economy.

The conference was organized by the Center on Institutional Cooperation, a collaborative of the Big Ten universities plus the University of Chicago. The CIC is celebrating its 50th anniversary in 2008, making it the oldest and largest such institution in the country. Representatives from the Chicago Fed, which hosted two similarly themed conferences in 2005 and 2006, were also in attendance.

The conference focused on the role of human capital—the skills, knowledge and social aptitudes of workers and entrepreneurs—in regional development.

Human capitalism

The conference kicked off Thursday evening with a reception, dinner and words from Minneapolis Fed President Gary Stern and University of Minnesota President Robert Bruininks on the institutional cooperation between the bank and the university.

Following their remarks was a keynote address from Robert Lucas, influential economic theorist, Nobel laureate and University of Chicago professor. Lucas declared up front that he would not be talking about regional economic cooperation. Instead he discussed the bigger-picture issues of growth and the sources of development. (For more on Lucas' remarks, see the sidebar on page 38.)

The next day began with Lance Lochner, of the University of Western Ontario, speaking on "The

Gary Stern

Robert Bruininks

Private Returns to Human Capital." Lochner's talk drew on research he has done with James Heckman, University of Chicago econometrician and Nobel laureate, on schooling decisions.

The social returns to schooling—reduced crime, higher tax revenues, increased innovation and so on—have received a lot of attention. Lochner focused instead on the benefits and costs to individuals, since individuals ultimately must make their own educational choices. Lochner's analysis considered those costs and benefits of schooling that are easily measurable (such as tuition, forgone earnings, increased future earnings) while staying silent on those that are not (such as distaste for school or pride in learning).

A key problem with measuring the returns to schooling is that the costs of education are mostly incurred up front, but the benefits accrue over time. To estimate the returns to education, one therefore needs to choose a particular discount rate for future benefits, and that choice makes a big difference in the estimate of lifetime returns.

Lochner's trick was to use a measure called the "internal rate of return." This is the discount rate required for a person to be indifferent between two lifetime income streams. For example, given potential future earnings and wages that could be earned instead of going to school, a young white male deciding not to finish high school would have to be very impatient, as much as someone requiring an interest rate of 46 percent to save.

Lochner's analysis ended with a puzzle. College enrollments and graduations soared between 1940 and 2000, even though the financial return to college completion increased only modestly. By contrast, high school graduation rates have actually declined slightly in recent decades, despite skyrocketing rates of return to finishing high school.

Having explored what drives people to acquire human capital, Lochner was followed by John Kennan of the University of Wisconsin–Madison, who talked about what draws human capital across state borders. Keenan started by reviewing the facts from the U.S. Census on migration of the college-educated.

Contrary to popular belief about so-called brain drain in the Midwest, exodus of college-educated workers from the region does not appear to be much more severe than out-migration from states in other parts of the country. Economically distressed Michigan, for example, has about the same rate of retention of college graduates as Virginia or Massachusetts. And while younger college-educated workers from the Midwest are more likely to be working outside their home states than the national average, as they enter their late 30s and beyond, they're less likely, indicating they tend to return home later in life.

Robert Lucas

Keenan then presented a model of human capital migration. In the model, workers with a given level of education earn different wages in different places, but the cost of moving presents a barrier to following the money. Keenan then took the model a step further, incorporating data from the National Longitudinal Study of Youth to calibrate it. His results showed that there really isn't all that much migration among states, so the cost of migrating must be high relative to the expected gains.

Midwestern newspapers are rife with stories about young people fleeing their homes after college, so why this surprising finding? In part it's because the data are messy, Keenan explained. While people generally move toward areas with higher incomes, many also move in the "wrong" direction, toward lower-income states. Further, many who migrate do so numerous times, so there is a disconnect between the amount of migration and the number of migrants. Overall, sustained differences in incomes do cause migration, but it takes a long time to materialize. Given this, Keenan suggested that policy changes that affect migration shouldn't be assessed for at least five years after the policies are in place.

Closing out the morning was Paul Glewwe, presenting on a topic near and dear to the hearts of many academic administrators in attendance: the contribution of research universities to state economies. Glewwe, a professor in the University of Minnesota's applied economics department, specifically focused on the contribution of his university, along with the Minnesota State Colleges and Universities System. In contrast to Lochner, Glewwe focused on public higher education's public benefits, rather than the private ones.

To calculate those benefits, Glewwe and his coauthor performed a simple thought experiment. What would happen, they asked, if Minnesota's public colleges had their funding withdrawn? Assuming that tuition would rise to private levels, they estimated that a tuition increase of $1,500 (in 1988 dollars) would lead to a decrease in enrollment of 2.5 percentage points.

Paul Glewwe

Many economists believe the public benefits to higher education include the positive external or "spillover" effects that higher wages for the educated have on the wages of others, increased voter participation and reduced incarceration costs due to lower crime rates. (It's also believed that since educated people may be healthier on average, health care expenditures may be reduced, but this effect is harder to detect.) Glewwe estimated the reduction in these benefits from higher tuition, and just for good measure he also looked at the loss in private benefits.

After all this was done, the current costs of state funding could be compared to the lost benefits. Even using conservative estimates of the wage spillover effects and ignoring the benefits of research by public universities, Glewwe calculated a substantial benefit from public higher education, with a benefit-cost ratio of about 2-to-1.

Still, the conference was a long way from answering the main question at hand: What can be done about the Midwest's lagging economy?

Fighting Balkanization the right way

Over lunch, conference participants heard from Minneapolis Fed Senior Vice President and Director of Research Art Rolnick about the benefits of early childhood education. Rolnick presented his case that high-quality preschool for at-risk children is possibly one of the best investments state and local governments can make in economic development. (For more on Rolnick's research with Minneapolis Fed Associate Economist Rob Grunewald, see *The Region*, December 2003 Supplement, online at minneapolisfed.org. Click on "Publications and Papers," and go to "Policy Studies.")

Art Rolnick

After lunch was the first of two panels on Midwestern development. Richard Longworth, senior fellow at the Chicago Council on Global Affairs, started the panel discussion with "The Balkanized Midwest and What We Can Do about It," which was based on his recent book, *Caught in the Middle*.

Longworth's theme was that while the Midwest is geographically and culturally one region, it is politically fragmented by its multistate structure, and this fragmentation prevents real movement forward. For instance, Longworth noted that each of the Big Ten universities represented in attendance has its own business, law and medical schools—some excellent, others just decent. However, if those universities could move beyond parochialism and pool their resources, the Midwest could have several truly world-class institutions in each field. Longworth ended with a call for greater cooperation by Midwestern universities, perhaps along with the creation of a think tank or "Midwestern studies" department, to help spur greater economic and political cooperation across Midwestern states.

Richard Longworth

After Longworth finished, Tom Holmes, professor at the University of Minnesota and research consult-

Tom Holmes

ant at the Minneapolis Fed, provided an economist's perspective on Longworth's talk. He started by reviewing the economics of cooperation. Market competition usually induces efficient outcomes from decentralized decisions, but there are two types of market failures that may require collective action to overcome: externalities and increasing returns.

As an example of externality, Holmes drew on a resource that is vital to the region: the Great Lakes. If one state decides to allow more dumping in a lake or divert water outside the watershed, the water available to others is affected. Classic examples of increasing returns include rail networks and power grids; they exhibit economies of scale—double their size, and profits will more than double.

Railroads and power grids are also often shared by states, which is crucial. Holmes cautioned that regional cooperation only makes sense to the extent that one can clearly identify the market failure and, in its resolution, include only those parties affected. It wouldn't make sense to include Arizona in a Great Lakes water conservation compact, and Puerto Rico probably doesn't want to get in on planning a Midwestern railroad. So Holmes argued that before any regional cooperation commences, the states involved should clearly identify the market failure and "draw a circle around it."

One implication of this for the proposals Longworth put forward is that while there probably aren't too many research universities in the Big 10, there may be too many redundant academic departments among them. The "research corridors" that have become popular with states seeking to develop their biotech and other research-intensive industries have not shown much evidence of producing collaborations that wouldn't have happened otherwise, and the case for interstate research corridors may be even weaker, due to distance alone. Holmes also cautioned against "smokestack chasing" (cities or states trying to compete with each other for existing businesses). While such chasing might be a boost to a local economy, it doesn't create any new jobs or prosperity in the aggregate, and can be a costly use of public funds if tax rebates or subsidies are used as lures. (For more on this issue, see the Minneapolis Fed's *1994 Annual Report* essay, "Congress Should End the Economic War Among the States," by Melvin Burstein and Art Rolnick, online at mineapolisfed.org. Click on "Publications and Papers.")

Overall, Holmes said, while talk and collaboration are great, regional decision-making in higher education and elsewhere should be decentralized, unless the market failure and the parties it affects can be clearly identified. What, then, can university, state and local officials do to encourage regional development? That was the topic of the day's final two sessions.

Beyond the ivory tower

First up was a panel from Chicago to talk about that city's exceptional success. Frank Beal, from the Chicago Metropolis 2020 Project, talked about how the city was able to fight the trend of Midwestern stagnation. The 2020 project brought together an impressive collection of retired business leaders to move Chicago into the 21st century, and Beal shared the lessons of their experience.

The running themes in all the project's work are about keeping the region economically competitive, focusing on the metropolitan area for action—rather than the city or state level—and promoting greater opportunities for the disadvantaged. This has led to an emphasis on four main areas: the criminal justice system, early childhood education, transportation and housing. Beal stressed that the project has succeeded by keeping a narrow, well-defined focus (avoiding "agenda creep"), concentrating on policy, being ambitious and not getting bogged down in discussions and collaborations with other organizations.

The lessons for the CIC, Beal said, were clear. Echoing Holmes, he said the CIC should make sure its focus is well-defined, but he also said it should move its focus to policy and not simply institutional cooperation. Following Beal were Connie Shoemake and Mark Cleverley from IBM to discuss the role of technology in achieving those goals.

The final discussion was led by Michigan State University President Lou Anna K. Simon. She kept her remarks brief, wanting to open the floor to dis-

Ideas on Growth

A summary of Robert Lucas' keynote address

After a quick overview of some features of modern economic growth, Robert Lucas took the audience on a tour of the history of economic thought, spanning from Thomas Malthus, David Ricardo and Karl Marx to modern growth theory.

Malthus is famous for his seemingly pessimistic theory that increasing production ultimately only increases population and therefore not living standards. Many an economics teacher has dismissed Malthus' work, with its implication that population must be held in check by war, famine or state coercion, as a failure to appreciate the power of technology to expand output exponentially. But Lucas was more generous to the good parson. "I view this as a successful social science theory, in the sense of fitting all the data that Malthus had in front of him," he said.

But Malthus failed to account for the observable role of inherited wealth. Ricardo, "the first systematic macroeconomic theorist," as Lucas called him, created a model in which inheritance had a central role. In Ricardo's theory, there are two classes: the landowners who own the only productive resource (land) but produce nothing and the peasants who produce everything but own no property. Landowners capture the surplus product (as rents) and pass it on to their heirs, who will accumulate wealth even if similarly unproductive. Ricardo's theory makes vast wealth for a minority consistent with the Malthusian model, which still explains the lives of the peasant majority. The only way to improve the living standards of the peasants would be to redistribute land to them through revolution.

Ricardo's theory was the starting point for Marx, as it was for all 19th century economists. But Marx, as a witness to the early industrial revolution, could appreciate the importance of technology. Marx's insight was to replace peasants in the Ricardian theory with the proletariat and the landowners with capitalists, who employ technology to drive down workers' wages and capture more of the surplus production for themselves. Marx thought this would culminate at a point, Lucas said, when technological progress would halt, and a workers' revolution would seize control of the means of production, as in Ricardo's theory.

Lucas said Marx's theory, like Ricardo's and Malthus', was a good theory at the time, even if it later proved inaccurate. But Marx was at his best when he focused on capitalists not as the owners of machines and exploiters of labor, but as a class of innovators. His mistake was using the Ricardian landlords as an analogy for a new capitalist ruling class.

So far, technological change has shown no signs of waning. Since the industrial revolution, average per capita output has grown by 2 percent annually, enough to increase wealth as much as eightfold per century. Contrary to Malthusian prediction, people in modern economies haven't reproduced at a rate equal to economic output. Rather, they've learned to substitute quality of children for quantity.

This level of economic growth is unprecedented in human history, Lucas said, which is why you can't blame Malthus for not seeing it coming. But, Lucas said, "much contemporary thinking about social policy is based on an uncritical application of 19th century ideas to situations that are very different from anything that these writers saw or imagined."

Lucas closed with some thoughts on wealth redistribution. If economic progress were based primarily on physical resources, then Ricardo and Marx may have been right that redistribution is the way forward. But knowledge can't be redistributed, and in a world where it is the most productive resource and taxes on wealth can distort incentives to innovate, redistribution might be counterproductive. While some might mourn "the loss of the redistributive option," Lucas said, it's the price we pay to live in an economy where living standards increase as rapidly as they do.

—Joe Mahon

cussion. Simon stressed that in order to use institutional cooperation as a tool for regional development, the university officials present would have to maintain an ambitious attitude toward affecting policy and better coordinate the use of their existing assets. In the discussion that followed, conference participants brainstormed ideas for future collaboration.

Lessons learned

The conference offered a few important lessons for those future projects.

First, possibly the most effective way to ensure long-term economic prosperity is through developing workforce human capital. Because they come from universities, many conference participants are already in this game, but it might help to start the push earlier, by supporting early childhood education for at-risk kids. Given what Lochner showed about the returns to high school graduation, this is especially important.

A second lesson: Don't worry too much about "brain drain." As Keenan demonstrated, most educated workers stay in their home states for much of their careers, and many who do leave eventually return to start families. As important, regional development isn't the primary goal of human capital policy; the goal is to provide workers with greater opportunities, and that will lead to overall development. Any regional development that stems from that, Lucas said, is incidental.

Finally, universities should appreciate the limits to what strategic cooperation can accomplish. Not all collaborations make sense, and Holmes' caution about bringing in only the affected parties matters. One of the worst things universities could do would be to get caught up in the same kind of bidding wars for facilities and jobs that states and cities have engaged in.

In the last analysis, the CIC universities are already making vital contributions to the Midwestern economy and should sustain that effort. "We have a creative, can-do spirit," Simon said. "We're just creating for the wrong economy." R

Conference papers are online at minneapolisfed.org. Click on "Research and the Economy," and go to "Seminars and Conferences."