

RMJ

Rural Minnesota Journal



January 2006, Volume 1

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Volume 1, January 2006



CENTER *for*
RURAL POLICY
and DEVELOPMENT

Seeking solutions for Greater Minnesota's future

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The Center for Rural Policy and Development, based in St. Peter, Minn., is a private, not-for-profit policy research organization dedicated to benefiting Minnesota by providing its policy makers with an unbiased evaluation of issues from a rural perspective.

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Foreword

Sen. Norm Coleman

For anyone living, working or traveling in Greater Minnesota, it is easy to see the numerous traits that make our state great. From our pristine waters and forests, to our nation-leading agriculture, timber and mining industries, to our close-knit small town families, rural Minnesota embodies the qualities that truly make our nation great.

Over the past few years, I have had the privilege of traveling across the state to visit with countless folks in rural Minnesota. Through these visits, it is clear that rural Minnesota is a place of great potential, yet also one with unique challenges.

Perhaps one of the greatest strengths of rural Minnesota is the economic diversity found in the four corners of the state. From the taconite mines on the Iron Range to the wind farms in Southwest Minnesota — and everywhere in between — Minnesota boasts one of the most diverse rural economies in the entire nation. While cities like Minneapolis and St. Paul are often thought of as the center of Minnesota's economy, the reality is that our expansive rural industries are truly a major driving force behind our state's financial strength.

Each year, millions of tourists travel to Minnesota to enjoy our pristine waters and vast outdoors, pouring significant money into the rural economy. Farmers in Minnesota continue to feed the world, and they are already fueling our nation as we continue to increase the use of renewable fuels such as ethanol, biodiesel and solar power. Our timber and mining industries continue to provide jobs for families across northern Minnesota, helping maintain a strong economy in one of the most beautiful places in the country.

Despite these strengths, our rural economy faces significant challenges as well. Younger members of the workforce are sometimes compelled to move to larger cities in an effort to find various types of work. Many of our smallest communities suffer from a lack of necessary infrastructure as sewer systems age, main street businesses

struggle and populations decline.

I have great concerns when our rural residents face these challenges. Our overall state economy is only as strong as our rural economy, and it is crucial that we do what we can to protect rural Minnesotans. Rest assured that I am committed to fighting for them whenever possible.

Some of my work in the past year alone to help meet these challenges includes leading efforts in the Senate to extend the farm safety net to protect Minnesota farmers, develop a clean-coal gasification plant on the Iron Range, provide disaster relief following early summer storms, increase the use of renewable fuels abundant in Minnesota, increase conservation of Minnesota wetlands, give smaller rural hospitals a competitive edge when competing for federal grants, and invest billions of dollars into small-town infrastructure through my Rural Renaissance Bill.

These efforts are just a snapshot of the work I have done, and pledge to continue doing, to help maintain the strengths of Minnesota found in our rural communities. I firmly believe that although the challenges facing these areas are real, the people of rural Minnesota embody the values of hard work, family and community that are needed to address these challenges. The same values that drive families to get up early for church on Sunday mornings before heading into the field, factory or office are the values we need to build on as we work together to maintain and improve our rural communities.

To that end, I want to thank the Center for Rural Policy and Development for affording me the opportunity to be part of this inaugural edition of the Rural Minnesota Journal. It will undoubtedly serve as a critical resource for all of rural Minnesota in a time when it is especially important.

It is truly a great privilege to welcome this much-needed publication and, most importantly, to continue working together to ensure a bright future for all of rural Minnesota.

Acknowledgements

The Center for Rural Policy & Development gratefully acknowledges our friends who have made RMJ possible.



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The logo for The Minneapolis Foundation is a stylized, bold letter "M" composed of several geometric shapes. To the right of the "M" is the text "The MINNEAPOLIS FOUNDATION".

The logo for The College of Agricultural, Food and Environmental Sciences is a stylized globe with a leaf-like shape on top. To the right of the globe is the text "The College of Agricultural, Food and Environmental Sciences".

UNIVERSITY OF MINNESOTA
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SERVICE

UNIVERSITY OF MINNESOTA

Reinventing Rural Minnesota

Tim Penny

“To retain their competitive advantage, rural firms, farmers and communities will need a renewed commitment to entrepreneurship and technological innovation.”

*The Federal Reserve Bank of Kansas City’s
Center for the Study of Rural America*

The above statement says it all. If we face facts, build on our assets and work cooperatively, I firmly believe rural Minnesota is poised for a comeback.

As a lifelong resident of rural Minnesota, a former state legislator and U.S. Congressman, I have been involved with rural and agricultural policy issues for more than three decades. I have watched as rural Minnesota has changed. Some changes have been alarming such as the severe reduction in the state’s dairy industry. Some change has been gradual, such as the depopulation of countless small towns.

Still, there are signs that rural Minnesota is catching a new wave of interest and development. The good news is that there are economic opportunities within every region of the state. In addition, technology advancements offer rural communities — regardless of location — an opportunity for a bright economic future.

My rural policy experiences, first as a legislator and now as a community leader, have led me to a number of conclusions about what works — and what doesn’t. Primary among my observations is that we need to be honest about where things stand today if we expect to adopt policies that will make our rural regions stronger in the future. In short, facts are facts.

Demography is part of our destiny — but we still choose.

A review of demographic data reveals much about where rural Minnesota stands today and where we are headed.

Minnesota's state demographer, Tom Gillaspay, tells us that there is good news and bad news. Poring through his compiled data, we can conclude the following:

First, Minnesota ranks as a leader on most economic and social indicators. We have the second lowest poverty rate. We are in the top percentile in health coverage and first in the United Health Foundation ranking of state healthiness. We are sixth in median family income. We are ninth in personal income per capita in 2004. By way of comparison, we were ranked 25th in 1960. Nonetheless, many rural regions in our state lag behind these statewide rankings.

Second, Minnesota is a growing state. However, the Twin Cities region is accounting for roughly 80 percent of the states population growth. Minnesota is rapidly becoming more suburban and exurban. Managing population growth is a huge issue for these communities. In contrast, many rural communities are notably smaller than they were in 1950 — some of them significantly smaller.

Third, over half the population growth in Minnesota this past decade is among ethnic minorities. Though Minnesota today is still one of the least diverse states in the nation (13 percent minority versus 32 percent nationwide), Minnesota will clearly look much different in the decades to come. This increasing diversity is evident in both urban and rural regions.

Fourth, Minnesota is aging. By 2020, the number of Minnesotans 65 and older will increase by more than 50 percent. By 2030, it will double. Rural communities will on average be older than the rest of the state. This aging trend has many implications. Retirees often downsize, affecting the housing market. Government spending priorities will shift to elderly health care, resulting in expenditures that will crowd out other spending and investment. In addition, older voters are more fiscally conservative, meaning the state and local tax base will be eroded as the Baby Boom generation reaches retirement age.

Finally, Minnesota's economic growth rate has exceeded the national average. Few dispute that higher education has been a key contributor to the state's economic success.

Our state is ninth in the nation in the percent of residents with college diplomas. Both rural and Metro areas have notably high post-secondary graduation rates — though rural Minnesotans' degrees

are weighted more heavily to two-year programs.

Despite Minnesota's overall economic strength, rural regions are often lagging. A Kansas City Federal Reserve report cites that only a sixth of the farm-dependent counties in the nation have above average growth in employment. That trend holds true for Minnesota as well. These job growth rural counties generally have two characteristics: They are near metro areas or they are emerging retail trade centers.

In summary, rural Minnesota is changing. We are aging. We are becoming more ethnically diverse. We are not — on the whole — as prosperous a region as we once were. These are the demographic facts that must inform our policy decisions.

Farm Policy Failure

According to a recent study commissioned by the National Corn Growers, "Despite \$104 billion spent on farm payments in the 1990s, three out of every four farm counties had sub-par economic growth during the decade."

For too long it has been assumed that federal farm policy is synonymous with rural policy. As a member of the House Agriculture Committee, I learned first-hand about the limits of the national government in addressing the economic needs of rural Minnesota. During my twelve years in Congress, the debate on the Farm Bill was mostly about apportioning cash payments to various crops so that every region and commodity group felt they were getting their fair share of farm subsidies. It was assumed that these subsidies would translate into profitable farms and by extension vibrant rural communities. The evidence demonstrates, however, that federal farm policy has not made rural Minnesota more prosperous.

Sadly, the Congressional approach to federal farm policy has not changed significantly since my tenure there. Recent farm legislation has focused more and more subsidies on fewer and fewer farmers.

A study conducted by the Kansas City Federal Reserve observes that "Today only one in every seventy-five Americans lives on a farm — and just one in 750 lives on a full-time commercial farm." The study also notes that "direct payments to farmers remain the dominant feature of U.S. farm policy. For instance, the 2002 farm bill commits nearly 70 percent of total spending to commodity payments to farmers and another 13 percent to conservation payments to farmers. Meanwhile, less than 1 percent goes to rural development initiatives."

The study concludes: "Farm payments are not providing a

strong boost to the rural economy in those counties that most depend on them. Job gains are weak and population growth is actually negative in most of the counties where farm payments are the biggest share of income.”

On balance, USDA programs have not kept pace with the times and are less relevant than ever in terms of either saving the mythical family farm or strengthening the rural economy. However, as a new Farm Bill is debated and developed in Washington, advocates for economic growth in rural Minnesota should urge policymakers to focus on two critically important and promising areas: conservation and cooperatives.

Conservation: The one success of recent farm policy can be found in conservation of land and water. The Conservation Reserve Program (CRP) and the Conservation Security Program (CSP) have revitalized habitat and improved river and lake quality. Through programs like Reinvest in Minnesota (RIM), the state of Minnesota has wisely partnered with the USDA in financing such land set asides. Conservation represents a partnership between urban and rural Minnesota. By restoring our wetlands and creating hunting and fishing havens, sportsmen and environmentalists are becoming allies with farmers — and their use of our natural habitat is bringing outside income into rural regions. A new farm bill should allocate a larger share of farm payments for conservation purposes and target those payments specifically to farmland along lakes, streams and marshes.

Cooperatives. Just as cooperatives originally brought electricity and telephone service and credit to agricultural regions, we need new cooperative concepts to take rural America into the 21st century.

Farmers are already redefining the role of cooperatives in a way that brings new opportunities for financial success. Cooperative ethanol plants and other cooperative processing facilities are returning higher per-bushel profits to farmers while also providing a return on investment for those farmers who have joined coops to build these processing plants.

In addition, many states, including Minnesota, are facilitating these new enterprises with legislation. Minnesota’s 308b cooperative law allows for outside investors to join cooperatives, bringing new capital to rural development initiatives. Farmers need to continue re-inventing coops in a fashion that creates a stronger linkage between producers and consumers. This may be especially true as identity preservation becomes a bigger consumer issue.

The cooperative movement still has much to offer rural regions, and innovations like Minnesota's 308b law are part of the answer. Accordingly, Washington lawmakers should think creatively about ways to modernize cooperative law as part of the next farm bill.

Knowledge clusters based on existing assets

"Start by identifying the region's existing knowledge clusters and then bring together the key stakeholders to consider how the clusters might be strengthened."

Kansas City Federal Reserve report on Knowledge Clusters

For the most part, we cannot and should not wait on Washington to save rural communities. Instead, we must look regionally for solutions. What can we do for ourselves?

My thesis is that every region in Minnesota is capable of building on existing assets to strengthen economic activity. Naturally, there are opportunities in agriculture, but health care facilities, tourism and recreational destinations, and regionally located colleges are also among the assets that can contribute to future growth.

Value-added. Farm exports are important, but not sufficient to sustain farm income. Grain exports do not necessarily translate into higher per-bushel income. Farm commodities processed closer to home hold greater promise in terms of adding value to farm produce. In the future, ethanol, biodiesel, bio-medicines, natural medicines, and other niche markets are all going to be more important to the success of farming and rural communities than traditional "grow for the world market" crop production.

As a recent National Corn Growers report cites: "Pharmaceutical farming is a prime example of how high-value agriculture "clusters" could develop in rural areas.... An estimated 400 protein-based drugs are in the pipeline with the potential for at least another 1,000." Clearly, as these "pharming" opportunities increase, it will make sense to co-locate laboratory and processing facilities near the production source to save on transportation costs.

The Corn Growers also stress that "Current corn-based products such as polylactic acid and advanced polyester already being commercialized will utilize nearly as much grain as today's corn sweetener market." Over time "these new polymers will be replacing the 60 billion-pound U.S. petroleum-based plastic market."

Investments in appropriate research at the University of Minnesota can help the farm sector identify ever more new uses for farm

crops and place Minnesota at the cutting edge of these emerging industries.

Livestock production. Animal agriculture is an often overlooked strength in rural communities. Livestock production is important to our rural economy because dairy, beef, hog and poultry operations “consume fifty-three percent of the U.S. corn crop and eighty-two percent of domestically produced soybean meal.” Minnesotans intuitively understand that livestock agriculture plays a critical role in maintaining the vitality of our rural communities. Without livestock agriculture our rural communities will continue to lose local processing jobs, veterinarian services, grain elevators, implement dealerships and more. In short, preserving (or better yet growing) our livestock sector will go a long way toward saving and strengthening these main street businesses.

Though federal dairy policy has hurt the Upper Midwest dairy industry, we still have the infrastructure to support dairy production — if we can demonstrate a commitment to keep Minnesota a dairy state. Other livestock sectors face challenges similar to dairy, and we need to plan in pro-active fashion if these farm enterprises are to thrive. Our state has a large and growing turkey industry. We still have a significant pork industry along with state-of-the-art meat processing facilities, such as Hormel in Austin.

Maintaining a livestock industry will require establishing predictable and timely policies regarding the siting and operational parameters of livestock production in our state. We do not necessarily need less restrictive regulations, but rather a process that is clearly laid out when farmers start down the path of establishing or expanding a livestock operation. Surprises along the way can be costly, both in terms of money and time. Policy makers need to find the proper balance if livestock facilities are to remain an economic engine in rural Minnesota.

Health care facilities. The demographic realities of an aging population remind us that health care will be a growth industry in rural Minnesota. Rural health care facilities are a community asset and already provide thousands of quality jobs. Naturally, as our rural population ages, these facilities will become ever more important to our communities. Irrespective of future Medicare and Medicaid payment formulas, the need for accessible, quality health care will demand that rural communities show creativity in partnering with health care providers to find solutions to local health needs.

Regional population centers will increasingly become a magnet for the baby boom retirement population in search of an array of

health care services. Smaller towns that do not have an adequate health care infrastructure to support retirees may continue to shrink. To avoid that, new health care delivery systems will need to be developed. Accordingly, telemedicine will become a larger part of our rural health care delivery system in years to come.

Tourism/recreation. A key asset base in rural Minnesota is our diverse tourism and recreation industry. Recreational opportunities often define a way to re-design the local economy.

Years ago, as a state senator, I authored legislation allowing local governing authorities to convert abandoned rail lines to trails. When this law took effect in the early 1980s, I did not imagine how numerous these trails would be today. Happily, in every region of the state trails are now a huge attraction drawing tourist dollars into the local economy. As an example, look at the Root River Trail system in southeastern Minnesota. Small cities, such as Lanesboro and Whalen, have become destination communities for hikers and bikers, campers and canoeists.

The communities of Thief River Falls and Roseau are classic examples of recreation-based business success. These rural cities are home to two of the largest domestic manufacturers of recreational equipment, Arctic Cat and Polaris. Both companies were founded nearly fifty years ago by a producer of farm equipment who was looking for ways to help farmers get around their farms during the winter months. Now they are adapting and thriving in the field of recreational vehicles.

Unique recreational opportunities exist in virtually every region of the state — and can become the nucleus for economic growth.

Regional two- and four-year colleges. Educational institutions are enormous regional assets. They are central to economic growth, job training and retraining in rural Minnesota.

The Kansas City Federal Reserve report on Knowledge Clusters has this to say: “Tapping institutions of higher education will be crucial if rural communities are going to strengthen their knowledge economies.... Local educational institutions provide the education for a high-skilled labor force.... Colleges and universities also generate research and development that can lead to new commercial products, new firms and new jobs.... Some are serving as catalysts for regional partnerships and business networks.”

In the 1960s and 1970s, the educational needs of the baby boom generation prompted Minnesota policymakers to assure that no Minnesotan was farther than 30 or 40 miles from a two-year tech-

nical college or community college. More recently, attempting to better coordinate educational offerings, policymakers merged these institutions into the state university system. In turn, the state university system has established a policy of turning these campuses into regional economic engines. All state college and university system campuses have been urged to create stronger and closer partnerships with area business and community leaders.

Current arrangements that respond to regional economic needs include the designation of the universities in Mankato, Winona and Bemidji as Centers of Excellence in Healthcare, Manufacturing and Engineering. In addition, Northeastern Minnesota's higher education institutions saw an opportunity to pool resources and reduce costs by joining five community colleges under one umbrella. The resulting Northeast Higher Education District is building partnerships with area businesses and governments and is bringing focus to the economic needs of the region.

Some campuses now house federal and state job assistance and small business administration facilities. The University of Minnesota Extension Service is also moving more aggressively into the economic development arena. When it comes to growing our rural economy, one size does not fit all. We need varied approaches built around local assets. In sum, our two- and four-year post-secondary institutions can be catalysts for designing regional solutions to our economic needs.

Now a word about local government. Economic growth in rural Minnesota will require local units of government that work together instead of competing against one another. Local governments too often have not appreciated the regional basis for growth strategies. Especially in the area of economic development, we need to get beyond city limits and county lines.

Experiments like JOBZ, which is targeted to certain communities, are rifle shot remedies and only marginally helpful. By perpetuating competition between communities and creating winners and losers, this approach is not a serious or long-term solution for rural Minnesota.

These are tight times financially for many rural counties and cities. Funding restraints, compounded by recent Local Government Aid cuts from the state, are driving partnerships between communities. An example of this effort is the Association of Minnesota Counties Futures Project. Collaborations between local governmental units (cities, counties, townships, school districts) are on the rise and affect areas such as administrative services, law enforcement and health

care delivery. This same attitude of cooperation must be extended to the economic development arena.

Partnerships must also reach beyond governments to include other regional players and stakeholders. This is critically important due to the fact that successful economic development strategies are those in which governments are just one of many actors — and often not the most significant one. According to Chuck Fluharty of the Rural Policy Research Institute: “New governance will redefine how rural regions make economic decisions and how key institutions work together in building a new economy. Government, higher education, and the private sector, including the business and non-profit communities, are especially important in defining governance in most rural regions.” Thankfully, rural Minnesota can look to the McKnight Foundation’s Initiative Foundations, the Blandin Foundation, and other regional players who stand ready to partner.

A final thought about transportation and telecommunications.

These two assets are essential to rural growth. Yet our road system is deteriorating and our telecommunications system is still in development.

The National Association of Counties (NACo) reports that “Less than 10 percent of federal spending for public transportation goes to rural communities. NACo’s warning? “Inadequate public infrastructure is viewed as the most significant road block to economic development in small towns and rural America.”

Regional highway corridors, like Highways 14, 60, 212, 23, 10 and 169, support the economy of rural Minnesota. A comprehensive transportation plan — honestly funded — is needed now more than ever. Minnesota has a twenty-year back-log of transportation needs (some new construction but much of it simple maintenance of existing roadways). The current revenue sources are well below that necessary to address this backlog.

Transportation alternatives, like Northstar Rail, will also bring growth and development. All along the Twin Cities to Saint Cloud corridor, communities will benefit from this project. Much of this growth will initially be residential, posing challenges to local communities to manage that growth. But over time, retail and service industries will follow the population growth. A regional economic upturn will be the result.

Providing telecommunications broadband access to rural communities is also key to fostering new growth. There is encouraging news on this front. In 1999, only about 18,000 zip code areas had broadband access with only 3,023 areas served by more than

three carriers. By 2003, access had reached more than 27,000 zip code areas with more than 13,000 areas served by more than three carriers. Rural-based telecommunications companies are attempting to stay ahead of the curve in new technology services. For example, Midwest Wireless, located in Mankato, has already brought broadband capacity into much of southern Minnesota.

In both transportation and telecommunications, we have work to do — and no time to waste.

The role of the Center for Rural Policy and Development

I agree with the observation of Karl Stauber, President of the Northwest Area Foundation: “Institutions devoted to research in rural public policy issues are still too few.” But, thankfully, Minnesota has one.

Created by the Legislature in the mid 1990s, the Center for Rural Policy is bringing much needed focus to the rural agenda. The authorizing statute specifically mentions several areas of policy research for the Center: job training, housing, crime, transportation and health care. Beyond that, the Center’s work is not limited in statute, leaving the board of directors much latitude in determining the priorities and activities of the Center. The statute states an expectation that the Center would collaborate with “higher education and other institutions throughout the state.” These relationships are evidenced in the Center’s work with research partners (including investigator-initiated projects), project teams and panel members.

The Center’s mission is to understand the unique challenges and opportunities facing Greater Minnesota. Since its inception, the Center has undertaken analysis on a wide array of issues, including the following: the impact of the school aid formula on rural schools; opportunities for alternative energy; rural health care challenges; the role of rural higher education institutions; rural telecommunications; ethnic and cultural diversity in rural communities; and the impact of the JOBZ economic development initiative.

Like our state demographer, Tom Gillaspay, the Center is helping us to understand where we are, where we are going, and what we can do about it.

This publication, *RMJ: Rural Minnesota Journal*, is meant to offer thoughtful analysis of the issues faced by rural Minnesota. In part, it will serve as a primer on the current status of Greater Minnesota. Beyond that, it will be a road map to rural Minnesota’s future.

Spatially Separated Neighborhoods and Ruralplexes *or Rural Minnesota is not Lake Wobegon!*

Thomas F. Stinson & R. Thomas Gillaspay

Garrison Keillor's Lake Wobegon is a national treasure. It brings back memories of a less harried time, describing an idyllic situation somehow bypassed by many of the problems facing today's rural and urban communities. The images Keillor paints ring especially true for many Minnesotans whether or not we now live in small towns since his stories capture selective memories from our youth. Reflecting on those times and the role of the small town serves a useful purpose, drawing us closer together by reminding us of our common roots.

Unfortunately, Lake Wobegon provides a poor starting point for attempts to develop an action plan for dealing with rural development needs. Nor are those images helpful in looking toward the future of local economies outside the metropolitan area. Keillor's model is simply too ideal, too vague, and too dated to provide useful policy guidance. Indeed, by helping in a small way to perpetuate the belief that the goal for rural Minnesota should be a return to a network of independent, self-sufficient small-town economies (something that may never have existed), the Lake Wobegon syndrome may be delaying the changes in public attitudes necessary for the quality of life in smaller cities to keep pace with that in the metropolitan areas. Paving the way for each of Minnesota's 823 cities with fewer than 25,000 residents to become a Lake Wobegon economy is not an appropriate goal for state economic development efforts, and it never was.

Rural development policy must recognize that the economic role played by localities is continually evolving and changing. For those living outside the metropolitan areas, during the past few decades those changes have been most noticeable in the 646 communities with populations less than 2,500. But the same forces have been at work in all of Minnesota's cities, even its very largest. The buying patterns of today's consumers are driven by concerns about price

and selection, and we all are much more willing to shop in regional centers or neighboring communities than were our parents.

The result has been that some local retail outlets grew unprofitable, and they closed. To some a loss of Main Street commercial activity is a sign that the community is dying. That concern is universal and occurs whether the community is a small town in southwest Minnesota or the center of commercial activity in a neighborhood in Minneapolis or St. Paul. But those concerns overlook the fact that what really defines a community is its people, not the amount of business activity that goes on within a locality's borders. The closing of a local grocery store does not mean that all homes in town will soon be boarded up. It is only a signal that the community's future role in the regional economy is being redefined.

Those concerned about the future of smaller towns in non-metro Minnesota need to shift their thinking away from the self-contained, economically self-sufficient image implied by the stories of Lake Wobegon to a model more in tune with today's realities. Small towns in Minnesota do not exist in a vacuum: they are part of a vital, interactive, symbiotic, regional network, and our attention should be focused on nourishing and positioning that regional network for success in the future.

Rural Communities Are Spatially Separated Neighborhoods

A more productive way of thinking about today's rural communities is to think of them as spatially separated neighborhoods. An advantage to using that approach is that it quickly highlights the fact that the key attribute of a community is its people, not the number of shops within its boundaries. It also highlights the fact that community linkages to the larger economy are most important when looking toward the future. Students of urban economics will also note that many of the same market forces are at work reshaping the urban economy.

The neighborhood model builds on the observation that Americans' strong preference for single-family detached housing and our willingness to trade travel time for lower housing costs has made the local housing stock and housing prices key equilibrating forces in the non-metro economy. Those forces, coupled with a good local road network and the relatively low out-of-pocket costs of driving an additional mile or taking another trip, have dramatically changed the role of what geographers call the lower order central places. Low transportation costs and greater mobility have allowed rural residents to raise their standard of living by providing them access

to a wider range of goods and services at lower prices. Those same forces have afforded individuals a greater range of employment opportunities.

When we think of rural communities as spatially separated neighborhoods and not as independent economic entities it becomes apparent that a community's future does not depend solely on the number of new jobs available within its boundaries. Instead, job opportunities available within commuting distance are the true keys to the future. It also makes clear that changes in the demographic and economic characteristics of the region, not just those within a particular locality will be the determinants of how the quality of life in the community changes over time.

Similarly, the neighborhood model makes it clear that our goal for today's rural communities should not be to offer locally the same set of goods and services as were available in the 1950s or 1960s. Just as in the metropolitan area, today's rural consumers, motivated by concerns about price and selection, are much more willing to shop in neighboring communities or regional centers than were their parents.

When rural communities are thought of as spatially separated neighborhoods, a community's future depends on the success of the regional economy in which it is located, not its relative success compared to its neighbors. The spatially separated neighborhood model highlights the interdependency of all communities in a region and the need for increased cooperation among those communities. It explains a lot, including the increasing interconnectedness that we are observing in rural Minnesota's communities.

The network of related spatially separated neighborhoods is contained within a ruralplex

Other important questions remain, though. The most crucial is if rural communities should be thought of as spatially separated neighborhoods, what is the larger community? Or more fundamentally, what are rural communities neighborhoods of?

There is also the question of what defines the limit of the local network of communities. Is there one single large network of rural localities in Minnesota? That does not seem reasonable given the substantial distances between the northern and southern corners of the state. This is an important question since if Minnesota contains several large networks and if there are differences in their characteristics, public policy initiatives may be more successful when tailored to fit the conditions in the particular group of communities under consideration. Programs appropriate for one corner of the state may not be as useful in another.

Once it is acknowledged that there is likely to be more than one network of non-metro communities, further questions arise. How many of these networks are there? And how should they be defined? To answer those questions we need to identify the shared demographic, economic, cultural and environmental conditions that create bonds between the communities or neighborhoods. It also becomes important to determine the strength of those bonds, and whether those bonds are likely to change sufficiently in the future to change the boundaries of the larger community. Population growth and commuting patterns determine the bonds to the metropolitan center. But what determines whether a particular community is linked to one or another regional cluster of communities?

Those questions are not easy to answer. Even in metropolitan areas where the orientation and ordering of places is clearer, there are ambiguities. Large cities have neighborhoods, but there are also suburbs, which can be interpreted as another set of neighborhoods linked to the central city. And then within a suburb there can again be neighborhoods. But, those ambiguities are less of a barrier to our understanding of the role of localities in an urban region because that network of communities is centered around a large population mass and that population mass provides all the associated localities with an identity.

Outside the metropolitan area, defining the boundaries of the network of localities is more difficult. Typically there is no large population mass at the center, and the distances between communities within the network are such that ties are weaker and less apparent. People do live in one town, work in another, send their children to school in another, and shop in several others, but there is no identifiable population center that provides the set of neighborhoods with a distinct identity the way the Twin Cities, Rochester, St. Cloud, and Duluth do for those living in and around those communities.

Despite the difficulties, however, recognizing the existence of these networks of rural communities and the internal bonds they have is important. It provides a structure for organizing information about the performance of Minnesota's rural areas. It also provides a framework for thinking about the current and future roles of rural communities in the state. And, it provides guidance for policy initiatives designed to enhance the quality of life for Minnesotans living outside the metropolitan area. Rural Minnesota is not homogeneous, and while it has many common issues and concerns, policy makers need to recognize that there are different forces at work in various regions of the state. The larger networks

of associated communities within which the spatially separated neighborhoods exist are also useful for identifying emerging trends in key social and economic variables that will affect the collective future of localities in that portion of the state.

Soil type, geology, climate and settlement patterns help define each ruralplex

Our attempt to place some bounds on the number and composition of these networks of localities in Minnesota begins by noting that the ease of transportation and communication available today dictates that the networks extend beyond the boundaries of counties. When Minnesota was settled, the county may well have been the boundary of the economy affected by a group of localities, but improvements in transportation and communication have greatly expanded those boundaries, so we believe the relevant networks are multi-county groupings.¹ We also recognize that there are already numerous regional groupings of counties in the state done to simplify administration of particular activities. It is likely that these regions serve the particular function they were designed for well, and we do not advocate collapsing all of the various regional groupings in the state into one all encompassing set of multi-county regions.

The linkages among communities we seek to emphasize are those based on commonalities that have been long enduring. In trying to set boundaries for the networks, we looked for similarities in the physical characteristics such as soil types, geology, and climate conditions, since those factors would help determine the types of economic activity that would be most successful in the region. They also would help determine the settlement patterns and ethnic origins of the settlers who first inhabited the area.

Minnesota's physical geography is unusual in that it has produced three very distinct agricultural regions in the state. Agriculture in southwest Minnesota has long been dominated by the production of corn, hogs, and soybeans. In northwest Minnesota small grain production is the largest source of farm income, and in central and southeastern Minnesota the dairy industry is most important. The economies and settlement patterns that emerged from the different agricultural production opportunities available are all noticeably different from each other. Northeastern Minnesota, where the mining and timber industries provided the economic incentive for settlement, has also evolved in a pattern quite different from the regions of the state where agriculture is important. We also observe that in the last two decades the lakes area of north

central Minnesota has created an identity separate from the others, a combination of recreation and retirement activity that has not been observed elsewhere in the state.

Because the data necessary for analyzing trends and patterns of growth important for planning purposes is organized on a county basis, we have chosen to have the boundaries of our networks follow county lines. This immediately creates a problem since communities in counties near the border of two adjoining networks are likely to interact with each other more than they do with localities in counties on the opposite side of the network to which we have assigned them. In Minnesota there are no geographic barriers to create hard and clear lines among networks of localities, so we are left with “fuzzy” boundaries, and those fuzzy boundaries will leave some ambiguities. Despite that concern, however, we believe it is useful to identify the primary network to which we believe each county is bonded.

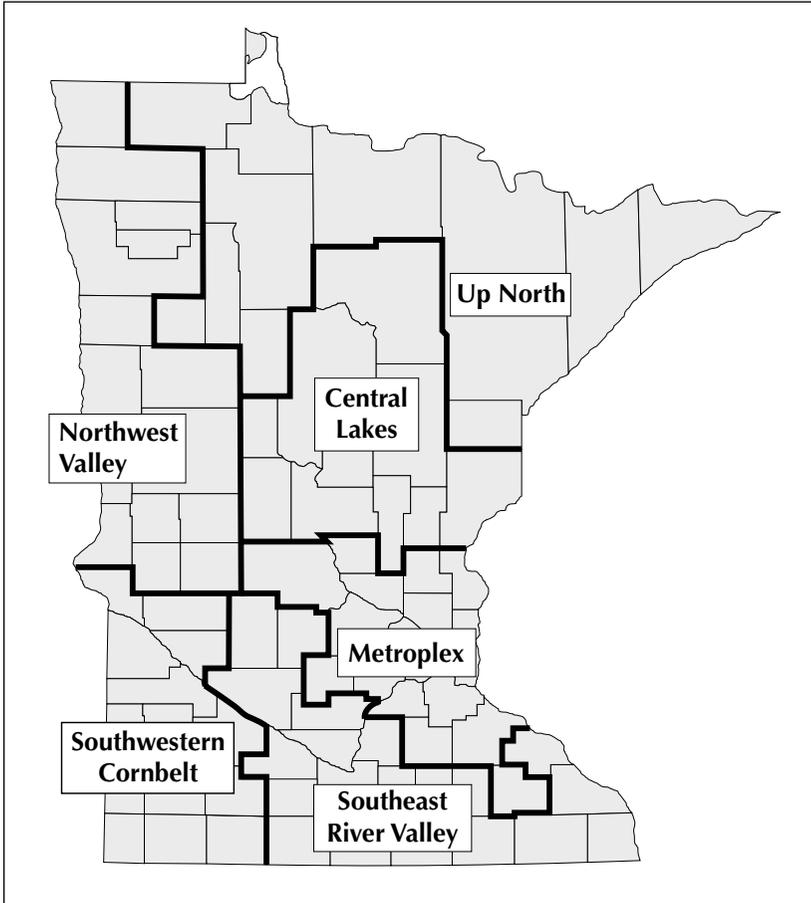
Minnesota Contains Five Ruralplexes – and One Metroplex

Based on those criteria we have divided Minnesota into six separate networks of spatially separated neighborhoods. We choose to use the term “ruralplex” to identify the five larger networks of spatially separated neighborhoods located outside the Twin Cities, and to call the Twin Cities metropolitan area the “metroplex.” The term “ruralplex” was originally used by former Wisconsin Governor Lee S. Dreyfus to describe the central Wisconsin communities of Stevens Point, Wausau, Wisconsin Rapids and Marshfield, communities which had strong linkages and which he felt had great potential for economic development, cultural growth and quality of life.²

A map showing the outlines of the five ruralplexes we have identified — Up North, Southeast River Valley, Southwest Cornbelt, Northwest Valley, and Central Lakes — is shown at right. Those definitions are used in our separate papers on demographics and economic changes in rural Minnesota, which follow.

Outside forces, economics, and demographics all affect Minnesota’s rural communities. But those outside forces will not all affect each community or the separate ruralplexes in the same way. Changes in the value of the dollar, for example, will have different impacts in different regions of the state because the products produced in those areas differ. The ruralplexes are the largest sub-regions of the state, and while they have internal differences, there are more similarities within each ruralplex than outside those boundaries. And, the ruralplexes share more similarities with each

other than with the metroplex. Finally, the large forces of global competition, demographic change, and technology are always changing the ruralplexes, and the boundaries are evolving slowly over time.



Endnotes

¹ But use of multi-county groupings does not mean that government services should be delivered by a multi-county regional government. The county may well span the appropriate area for service delivery for services currently provided by counties.

² The term metroplex has been often used to describe the Dallas-Fort Worth metropolitan area.

The Economics of Minnesota's Ruralplexes

Thomas F. Stinson

Minnesota's economy has performed admirably for more than forty years. No matter whether one looks at Gross State Product statistics, employment counts, or personal income data, the message is the same. Minnesota has grown faster than the national averages. In the early 1960s Minnesota ranked 25th among states in per-capita personal income and was at 95 percent of the U.S. average. In 2004, personal income per capita was 109 percent of the national average, and we ranked ninth. Since 1960 personal income per capita has grown at an average annual rate of 6.8 percent, 0.4 percentage points faster than the national average of 6.4 percent. Only in Mississippi, Alabama, Georgia, Tennessee, Virginia and South Carolina did the economy grow faster on a per-capita basis, and incomes in those states all started well behind Minnesota.

That remarkable record of growth occurred at the same time the structure of the state's economy was undergoing a fundamental transformation. In the 1960s Minnesota was a resource-based economy, where agriculture, mining, timber, and the manufacturing activity directly associated with processing those products accounted for more than 19 percent of Gross State Product (GSP). Nationally, those same resource-based sectors accounted for 13 percent of economic activity. But by 2001, the resource-based sectors' share of economic output had dropped nationally, especially in Minnesota. In 2001 the resource-based sectors accounted for just 6.5 percent of Minnesota's GSP, only 0.5 percentage points more than in the national economy. Over the past forty years Minnesota has become a diversified manufacturing- and services-based economy very similar to the national economy. Indeed, Minnesota's economy now is so similar to the national economy that the state is noted as one of the two or three states whose economy is most similar to the national economy.

That economic transformation did not occur because the resource-based sector failed to grow. Agriculture, mining, and the timber industry have grown substantially during the past forty years. Other sectors, however, have grown more rapidly. The services sector, which includes the important business services and health care sectors, has grown the most rapidly in Minnesota and nationally. In 1963 services accounted for just under 10 percent of Minnesota GSP. By 2001, services accounted for nearly 22 percent of statewide economic output. That same identical pattern can be seen at the national level as well, where the services sector grew from 10 percent to 21 percent of total economic output.

One important way in which Minnesota's economic progress has differed from that of the national economy is in the proportion of output coming from manufacturing outside the resource based industries. Nationally manufacturing's share of total output fell from 21 percent to 12 percent. In Minnesota manufacturing's share remained almost stable, falling from 13 percent to 12 percent.

Minnesota did face some difficult economic times. The combination of the twin national recessions of the 1980s, a sharp downturn in the iron mining industry and the U.S. farm crisis brought statewide economic hardship. Minnesota's much-applauded economic diversification was of little help when all the state's major economic sectors came upon hard times at same time. Statewide unemployment rates reached as high as 9 percent during that period, and they hovered above 8.5 percent for 10 months in 1982. Double-digit unemployment rates were common in some regions of the state.

But the periods when Minnesota underperformed the national economy were more than offset by times when the state significantly out-performed the national economy. The recession of 1990-91 was much weaker in Minnesota than in much of the rest of the nation and employment and incomes recovered more quickly. And the economic boom of the late 1990s was stronger in Minnesota than in most states. Minnesota's unemployment rate averaged just 2.7 percent in 1998 and 2.8 percent in 1999. In 1999 we tied with Nebraska for the lowest unemployment rate in the nation. Payroll employment increased by 53,000 (2.1 percent) in 1998 and by 66,000 (2.5 percent) in 1999. During the decade of the 1990s the number of jobs in Minnesota grew by more than 25 percent, from 2.124 million to 2.655 million. Nationally, payroll employment grew by 20 percent, only 80 percent as fast as Minnesota.

Minnesota's economy has dealt with the challenges presented during the last half of the twentieth century more successfully than its neighbors or any other Frost Belt state. It managed the

transformation from a resource-based economy to a diversified manufacturing and services-based economy, and at the same time it has grown more rapidly than the national average. The progress in the economy has been statewide and the benefits of that growth have lifted the standard of living in Minnesota all across the income distribution. Poverty rates in Minnesota are low compared to other states and in recent years the lowest income counties in the state have been among those growing at the fastest rate.

Economic growth has occurred outside the Metroplex

Minnesota's remarkable economic performance is broadly known. What is not as broadly appreciated is how that growth has been spread across the entire state. Some casual observers, both inside the state and elsewhere in the nation, attribute the state's strong economic performance to the vitality of the state's major urban centers. They rightly note that the Minneapolis-St. Paul area is perennially on the list of the nation's strongest large metropolitan economies, and Rochester and St. Cloud have compiled impressive records of economic growth as well.

But while it might be natural to assume that the strong performance of the state's metropolitan areas came at the expense of the non-metro areas and economic growth in rural Minnesota must be lagging behind the national averages, that would not be true. What many fail to recognize is that Minnesota's non-metropolitan areas, for the most part, also out-performed the national economy during the latter part of the 20th century. Those statistics hold despite the catastrophic impact of the farm crisis of the 1980s on much of rural Minnesota.

Average annual growth rates in per-capita personal income in each of Minnesota's ruralplexes and its Metroplex are shown in Table 1. The statewide average growth rate and the national average growth rate also are provided for comparison purposes. Growth in per-capita personal income is generally assumed to be the best measure of the improvement in the average standard of living for a state or region. Between 1970 and 2000, personal income per capita increased at a 7.1-percent annual rate in Minnesota; nationally it grew at a 6.8-percent annual rate.

Minnesota's Metroplex did grow faster than the statewide average. The difference was small, though, 7.2 percent compared to 7.1 percent. But per-capita personal income growth rates in the Up North and Northwest Valley ruralplexes also exceeded the statewide average. And it was the Up North region, not the Metroplex, that showed the strongest growth rate. In the Up North ruralplex, per-

capita personal income grew at a compounded annual rate of 7.4 percent over the thirty-year study period. Only in the Southwest Corn Belt region did per-capita personal income fail to exceed the U.S. average growth rate between 1970 and 2000.

Table 1: Annual growth rate in per-capita personal income, 1970-2000.

Northwest Valley	7.22%
Up North	7.36%
Central Lakes	7.17%
Southwest Corn Belt	6.75%
Southeast River Valley	6.91%
Metroplex	7.19%
State	7.08%
U.S.	6.85%

As the economy has evolved over the past 30 years the sources of income have also changed. Nationally, wages and proprietors' incomes were 77 percent of personal income in 1970; by 2000 they had fallen to 69 percent. Minnesota incomes followed the same pattern as those in the rest of the nation, but the differences between what occurred in the Metroplex and what happened in the state's five ruralplexes is important for those seeking to better understand the forces affecting the state's rural economies. Outside the Metroplex the proportion of personal income coming from earnings fell by nearly 15 percentage points, dropping from just under 75 percent to 60 percent. Earnings as a percent of personal income were lowest in the Southwest, where they were 58 percent in 2000, down from 73 percent in 1970. The Southeast River Valley ruralplex had the highest ratio of earnings to personal income in 2000, at 63 percent, but that was still six percentage points below the level in the Metroplex.

When wages and proprietors' incomes drop as a percentage of personal income, other sources of personal income must increase more rapidly. Those other sources of income include portfolio income and transfer payments. In Minnesota's ruralplexes the proportion of income that comes from transfer payments — primarily Social Security and Medicare, but also other pension payments as well — has become much more important and grown much more rapidly than in the Metroplex or statewide (see Figure 1).

In the Central Lakes area transfer payments are now 20 percent

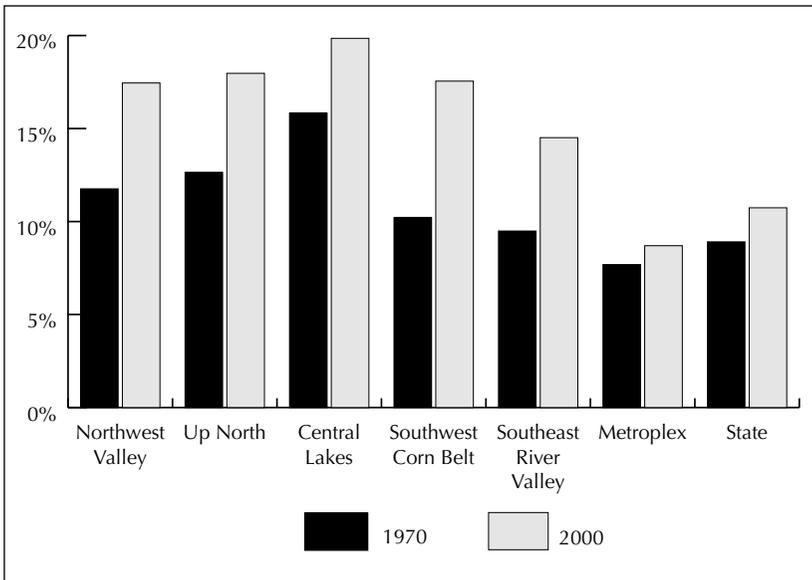


Figure 1: Transfer payments as a percent of personal income, 1970 & 2000.

of personal income, while in the Metroplex they are only 8 percent. In the Southwest Corn Belt and the Northwest Valley the proportion of personal income accounted for by transfer payments increased by 7 percentage points and 6 percentage points respectively. Even in the Southeast River Valley where the proportion of personal income coming from transfer payments is the smallest of the state's ruralplexes, transfer payments as a percentage of personal income are more than double the percentage in the Metroplex.

This relative reliance on transfer payments as a source of income is an important characteristic of the economies of Minnesota's ruralplexes that distinguishes them from the Metroplex. Policy makers need to recognize the importance of transfer payments, and by extension future Social Security and Medicare policy, to the future of the economies of Minnesota's ruralplexes. In five of the six ruralplexes, transfer payments are larger than farm proprietors' incomes, including both farm program payments and net income from farm operations. And as the ruralplexes age, transfer payments will play an even more important role in supporting local economies outside the metro areas of the state.

Strong statewide job growth has not carried into Minnesota's ruralplexes

Minnesota's job creation record has also been outstanding. Nationally, payroll employment grew by 76 percent between 1970 and 2000. In Minnesota, payroll employment grew more than 30 percent faster, increasing by 98 percent over that thirty-year time span. The number of individual farm proprietors fell nationally and in Minnesota, but the number of non-farm proprietors grew more rapidly in Minnesota than in the rest of the nation. The number of non-farm proprietors in Minnesota grew by 156 percent between 1970 and 2000.

Perhaps the biggest economic difference between Minnesota and the national economy is in manufacturing employment. Manufacturing employment in Minnesota grew by 41 percent during the last thirty years of the 20th century. Nationally, it declined by 3 percent. The services sector showed the most rapid employment growth. Both in Minnesota and nationally, services employment more than tripled between 1970 and 2000. Government employment also grew, but it grew more slowly in Minnesota than nationally, up 33 percent in Minnesota and 43 percent nationally.

When the employment statistics are broken down by region, several distinct differences emerge. The number of jobs in the Metroplex grew by 110 percent and the number in the Central Lakes

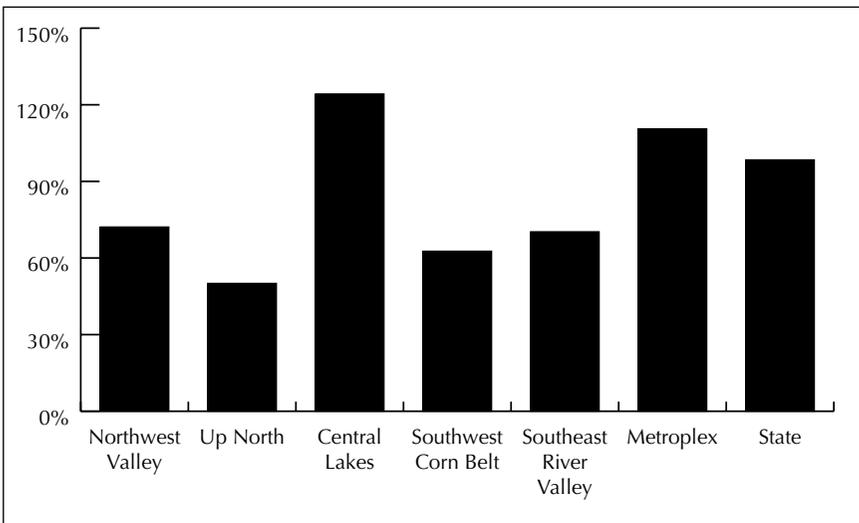


Figure 2: Employment growth in Minnesota regions, 1970-2000.

region by nearly 125 percent, but in all other regions employment growth lagged the national growth rate, increasing by 75 percent or less. Payroll employment in the Up North ruralplex lagged the most, growing by less than 50 percent (see Figure 2). The slow growth in employment observed in the ruralplexes re-emphasizes the important role that transfer payments have played in rural Minnesota.

When the employment data are examined in more detail, other surprises emerge. Perhaps the biggest is how manufacturing employment growth has been distributed across the state (see Figure 3). Manufacturing has been a success story in Minnesota for the past three decades, with manufacturing employment growing by more than 41 percent at a time when U.S. manufacturing employment was declining slightly. But while it might be thought that the strong employment growth observed in the Metroplex would reflect very strong manufacturing growth, it did not. Manufacturing employment growth was stronger on a percentage basis in four of the state's five ruralplexes than in the Metroplex. And while manufacturing employment in the Up North ruralplex grew by just 12 percent between 1970 and 2000, that was still 15 percentage points faster than the 3 percentage-point decline shown in the national averages. In the Southwestern Corn Belt and the Central Lakes ruralplexes manufacturing more than doubled. In the Northwest Valley ruralplex, manufacturing employment grew by 87 percent.

Where did employment growth lag in the ruralplexes? Other

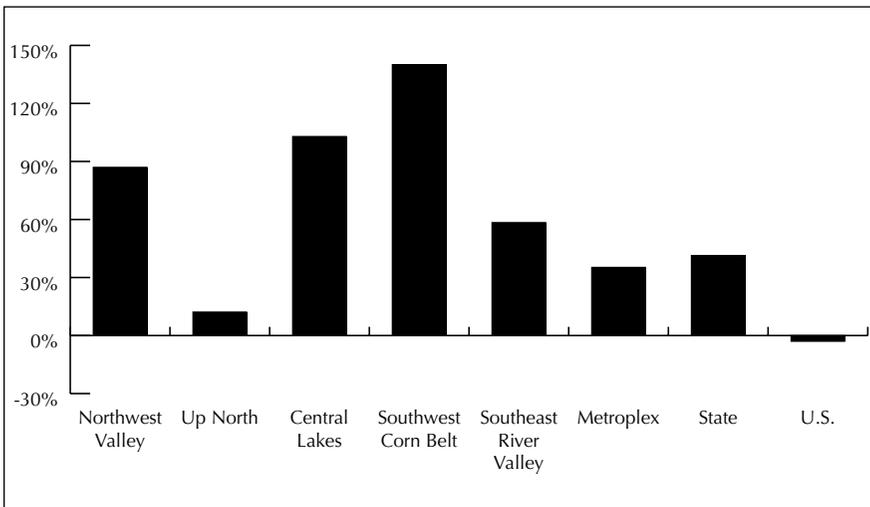


Figure 3: Change in manufacturing employment, 1970-2000.

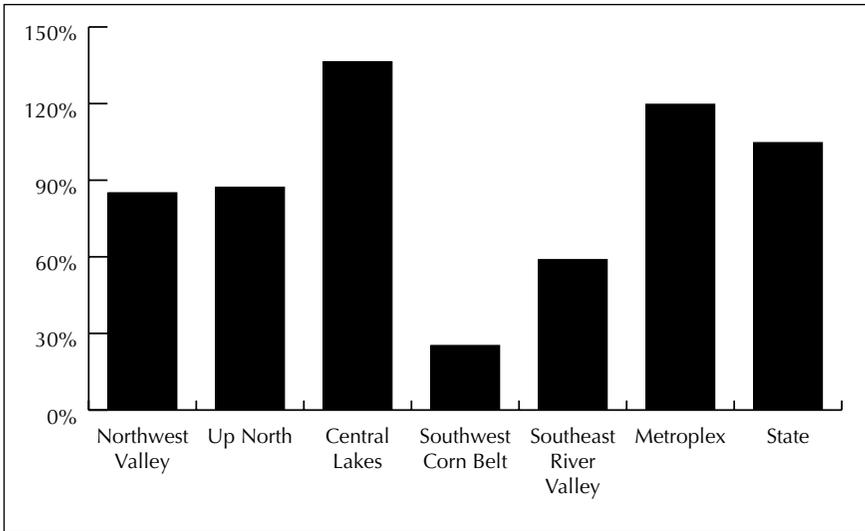


Figure 4: Change in retail employment, 1970-2000.

than in the Central Lakes area, retail trade grew much more slowly than in the Metroplex. All over Minnesota individuals expanded their shopping range, and big box stores in regional centers replaced smaller local stores. The size economies that accompanied those changes allowed more goods to be sold per worker. That increase in productivity kept prices down for the consumer, but it also reduced the demand for local retail employment. Retail employment grew by just 25 percent in the thirty years at the end of the 20th century in the Southwest Corn belt area, and by under 60 percent in the Southeast River Valley ruralplex (see Figure 4).

That same pattern was also observed in the growth in non-farm proprietorships, which include small retail activity as well as small service and manufacturing operations. The number of non-farm proprietorships in Minnesota grew by more than two times between 1970 and 2000, slightly faster than the national growth rate, but a major portion of that growth was in the Metroplex, where the number of proprietorships more than tripled. In the Southwestern Cornbelt, the Southeastern River Valley, and the Northwestern Valley, the growth of non-farm proprietorships was well below the state average.

Growth in the services sector was the source of the greatest growth in national employment between 1970 and 2000. That was also true in Minnesota. Nationally, employment in the services sector, which includes health care and business services as well as

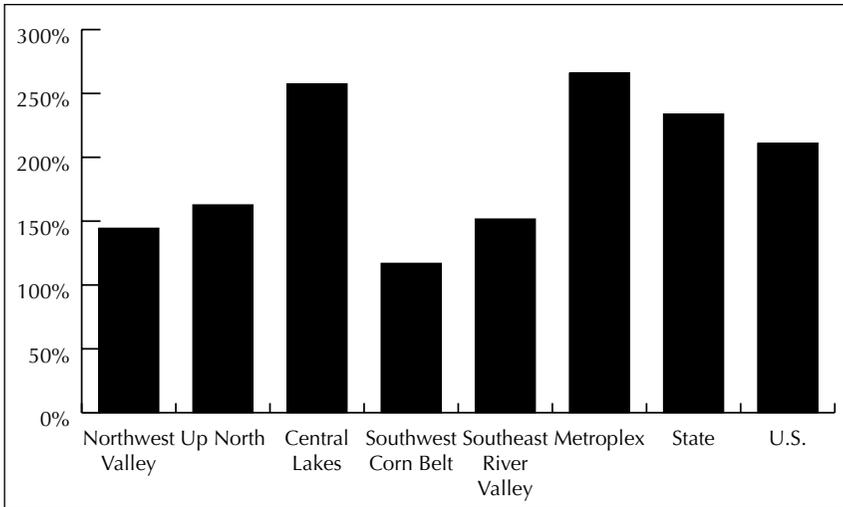


Figure 5: Change in service employment, 1970-2000.

personal services, grew by 211 percent, reaching a level more than triple its 1970 level. In Minnesota, services employment grew even faster, up 233 percent over that time period (see Figure 5). In the ruralplexes, however, growth rates were much slower. Only in the Central Lakes area did the rate of increase exceed the national rate. Again, the willingness to purchase outside the immediate vicinity of one's residence appears to have allowed consolidation of service delivery. For the Metroplex, its status as a major health services delivery center also contributed to its growth rate exceeding the national growth rate. The consolidation of health care delivery into the urban centers undoubtedly contributed to the slower growth of services employment in the ruralplexes.

Recent Changes in Employment

Minnesota's economy has not been as strong as the national average since the 2001 recession. Through September 2005 payroll employment in Minnesota had grown by just 0.6 percent since February 2001, 0.5 percentage points slower than the national growth rate. While U.S. job growth over the past four years has been disappointing, the lowest for a comparable period in the post World War II era, employment growth in Minnesota has been even weaker. Given the state's strong historical performance, its recent progress is even more of a disappointment.

Minnesota's manufacturing sector has not performed well since the start of the recession, but that is not the reason employment

growth in Minnesota has lagged employment growth elsewhere in the nation since 2001. Manufacturing jobs in Minnesota have declined by 11.5 percent between February 2001 and September 2005, but nationally they are down 16 percent over that same period. Minnesota's financial sector and educational and health services have also grown faster than the U.S. average since the start of the recession. Where Minnesota has fallen behind is in the trade, transportation and utilities sector, the professional and business services sector, and the government sector. In each of those large employment sectors growth rates have significantly lagged the national averages.

Looking toward 2015

Minnesota will grow over the next decade. There will be more people working, and their wages will, on average, be higher, even after adjusting for inflation. Nationally, real per-capita personal income is forecast to increase by about 25 percent over the next decade. If historical patterns hold, Minnesota will match or exceed that national growth rate.

That leaves the question of the geographical distribution of that economic growth. Here the outlook is less clear. The growth will not be limited to the metropolitan areas of the state, but those areas are likely to get a disproportionate share of the growth, just as they have during the past decade. There is, though, concern for the future of the state's ruralplexes. Some wonder how well positioned they are for dealing with the challenges to the local economy that will occur over then next decade.

Agriculture, the mainstay of the Southwest and Northwest ruralplexes and an important contributor to the economies of two others, is unlikely to provide much of a boost to local economies. Agriculture is a mature industry, and while U.S. and Minnesota farmers are the most productive in the world, there is no reason to expect that farm proprietors' income will keep pace with the growth of the rest of the economy. Farm income in 2004 was at record levels, and farm income for 2005 is projected to be at the second highest level in history. Incomes of individual farmers will increase as output per farmer continues to grow, but even with strong production growth total farm income in Minnesota's ruralplexes is unlikely to increase its share of personal income. Minnesota's agricultural industry is not alone in that situation. Forecasters expect to see only modest growth in U.S. farm income over the next decade as well. Minnesota's other resource-based industries, mining and timber, are also mature industries and unlikely to grow as fast as the state economy.

That means that Minnesota's ruralplexes will need to find another source of income for their economies to remain strong. A key source of income will again be transfer payments. All of Minnesota is getting older, and by 2015 the baby boomers born in the 1950s will be approaching retirement age. As noted earlier, transfer payments are a relatively more important source of income in Minnesota's ruralplexes today than in the metropolitan areas, and a decade from now they will be even more important.

Even today the dollar values of transfer payments to the ruralplexes are substantially larger than farm income. As a greater and greater percentage of Minnesotans reach retirement age the importance of this source of income will only grow.

The growth in the importance of transfer payments to the local economy will be accompanied by further emphasis on the sectors providing services and goods desired by those at or approaching retirement age. Retail and services will continue to grow, but the pressures of price and selection are likely to cause further consolidation of activities and keep employment levels in those sectors from growing at the same rate as they would in areas where populations were growing more rapidly. An aging population will certainly purchase more services, and most services are not as susceptible to labor-saving productivity increases as the trade and manufacturing sectors. Health services are likely to be an even stronger growth sector than in the past due to the increased demand brought on by the aging of the population.

Assessing the outlook for manufacturing employment in the ruralplexes is challenging. Minnesota's record and rural Minnesota's record have been good since the 1970s, much stronger than the national averages. But since 2000, manufacturing employment in the state has fallen back substantially, with more than 60,000 manufacturing jobs lost between the peak level of employment in July 2000 and the time manufacturing began to grow again in 2004. Since then, manufacturing employment has increased slightly, by about 10,000 jobs. But there is no reason to suspect that manufacturing employment in Minnesota will quickly regain the levels observed in 2000.

Manufacturing employment falls in a recession, and the 2001 recession was no exception. The demand for manufactured goods declines, and manufacturing firms then layoff workers to hold inventories of finished goods at the level they deem to be appropriate. That same dynamic occurred in the 2001 recession as well. But in our increasingly interconnected global economy, more was going on.

Some production moved off shore. Competition from Asia or Mexico presents a real challenge for U.S. producers. When foreign workers receive only \$0.40 an hour as in China, or even \$2.40 per hour as in some other Asian countries, and U.S. manufacturing wages average \$17 per hour, it is not always possible for U.S.-based production to compete on price. In the past the U.S. has been able to maintain manufacturing employment because of our productivity. Higher wages can be justified when workers produce more per hour or when the products they produce are valued higher. The question is whether our productivity advantages will hold up into the future. Maintaining that productivity advantage will be a major determinant of the demand for additional manufacturing workers in the U.S.

America's productivity advantage and Minnesota's productivity advantage have traditionally come from two sources. First, U.S. workers have had access to the newest and most sophisticated equipment and technology. That access is becoming less of an advantage. As the world has become more interconnected, technology is transferred more rapidly, and the production process improvements and new equipment designed in the U.S. are soon available elsewhere in the world. That means the gap between the productivity of U.S. workers and foreign workers is narrowing, and the future narrowing of that gap will continue to put pressure on U.S. manufacturing employment.

The second reason American workers have been more productive than their foreign counterparts is their skill level. Here both technical skills and soft skills are important. Over the years this has been an important advantage for the Minnesota worker. It has also been a major contributor to the strength of the manufacturing sector in Minnesota's ruralplexes. The quality of the Minnesota workforce, metro and rural, has been the state's competitive advantage. There is no reason to suspect that the quality of Minnesota's workforce will deteriorate over the next decade, but just holding the line will not be good enough. The productivity of the Minnesota workforce will need to continue to improve if we are to hold our share of manufacturing employment, because skill levels elsewhere in the world are continuing to increase. That is particularly important for the outlook in the ruralplexes. The quality of rural Minnesota's workforce has been a major contributor to the strength of the manufacturing employment growth outside the metropolitan area. Building further technical skills and further building on Minnesota's reputation as a state filled with productive, well educated workers who want to work will be particularly important to the economic outlook for the ruralplexes.

Looking toward the future, the manufacturing outlook in general

and for rural Minnesota in particular is filled with question marks. The expansion of demand for goods and services that result from a growing global economy will also help support Minnesota manufacturing employment. Clearly a revaluation of the dollar against key Asian currencies will help keep Minnesota manufactured goods competitive. But that will not be enough.

There are other factors that will keep pressure on our manufacturing firms. An important consideration is the cost of getting goods from the factory floor to the consumer. When the U.S. was the source of most of the demand for manufactured goods, domestic producers had an advantage because transportation costs to market were smaller than those from producers overseas. Now, when the market growth is more global and the most rapidly growing portions of the market are overseas, transportation costs from the U.S. to foreign markets must be absorbed by U.S. manufacturers.

Shipping costs will be important in other ways as well. Firms like food processors, producing products for local consumption where shipping costs are high compared to the value of the product, are likely to continue operating locally. And firms like those in the medical technology industry, where the value of the product is high compared to its shipping cost, are also likely to continue to grow.

Intermediate goods for use in a domestic production line are also likely to continue to do well. In today's just-in-time manufacturing inventory systems, firms do not want to see their main assembly line shut down due to the lack of a key part currently waiting to be brought on shore from an overseas shipment. Similarly, sectors where production is very capital intensive and where the capital equipment is already in place are also likely to remain in operation in Minnesota, at least until their equipment needs replacement.

Looking forward, Minnesota and the ruralplexes in particular may want to concentrate on products where an implicit quality guarantee is important. Again, Minnesota's medical technology industry is an example of a sector where price is less important than the quality of the product. That same principle applies to other products as well, particularly items that are part of a larger product. If failure rates for a component produced locally are lower than for a similar part produced somewhere else in the world, that means that failure rates for the completed product will be less as well, and a lower failure rate is of value to the seller of the product. Ultimately that kind of productivity will be important in keeping manufacturing jobs in Minnesota as well.

With manufacturing employment likely to show, at best, only modest growth and the resource-based industries unlikely to pro-

vide any substantial increases in employment, the services and retail sectors will provide the employment growth in Minnesota's ruralplexes. That growth will be driven in large part by the increase in transfer payments expected as the baby boomers reach retirement age and begin drawing Social Security and pensions. The demand for services is also likely to increase. Increases in real wages means the implicit value of our non-working time will also increase. That increase in the value of our time away from work means that in the future we will be even more likely willing to pay others to do tasks that we formerly might have done ourselves. The demand for services of all types is expected to increase, but particularly that for services that once were done at the household level. Health care and medical services will continue to be an area of employment growth in the ruralplexes, although they are likely to be concentrated in the bigger communities and regional centers.

Conclusion

Minnesota has been very successful during the past half century. Our record of economic growth stands up well when compared to any other state. Once the state's reputation for cold winters and its location away from this country's major markets is factored in, Minnesota's economic performance is even more impressive. Adding the fact that per-capita personal incomes in Minnesota's ruralplexes grew faster than the national average, the state's record is truly remarkable. During the past forty-plus years Minnesota has more than met the challenge of transforming its economy from a resource-based economy to a more modern manufacturing/services-based economy.

But we cannot rest on past accomplishments. Extending the state's record of strong economic growth over the next decade or more will be a real challenge, particularly in Minnesota's ruralplexes. Choosing appropriate statewide and local strategies for dealing with the pressures of globalization, demographic shifts, and rapid technological change will be crucial, and workforce development efforts will become even more important as the structure of the Minnesota economy continues to evolve. The task ahead will be substantial for rural Minnesota, but rural Minnesota has shown that it is capable of meeting the challenges that lie ahead.

The Demographics of Ruralplexes

R. Thomas Gillaspay

Minnesota saw great change over the past century. The metropolitan area grew, and with that growth came national and international competition, farm productivity increased beyond imagining and rural areas experienced a profound change in their character and role in the state's economy. With that change came an equally profound change in the demography of rural Minnesota.

In 1900, nearly two-thirds of Minnesota's population lived in rural areas (66%) and three-fourths of the rural population lived on a farm (74%). By 2000, after rapid growth in urban areas and little growth in rural areas, only 29 percent of the state population lived in rural Minnesota and only 10 percent of the rural population lives on a farm. The farm population has declined from 49 percent of the state population in 1900 to 3 percent in 2000. Rural Minnesota has changed.

Increased productivity and a national economy that is less dependent on extractive industries such as agriculture, mining and timber have resulted in declines in overall rural population in many areas of the nation, especially in the prairie, Mississippi river valley and Appalachia. In Minnesota, this effect is largely experienced in the Great Plains area of southern and western Minnesota. Northern Minnesota has also seen dramatic changes in iron mining and timber.

The cumulative impact of these economic changes is to reduce the demand for labor in many rural areas of the state. Over the past century, many people, especially young adults, have seen greater opportunities in the metropolitan areas. As a result, metropolitan areas have grown and prospered as well educated and hard-working young adults have left their rural birthplace and fueled the growth of a high quality and internationally competitive work force.

The rural birthplace, meanwhile, has generally grown substantially older, because the out-migration to the metropolitan area is concentrated among young adults and the future children

those young adults will have. Many rural counties of Minnesota, the Dakotas, Iowa and other states in the middle of the nation have seen long-term declines in population of 80 or more years. In many of these counties, 20 percent or more of the population is age 65 and older and in the average year, more people die than are born. In 2004, 16 of Minnesota's 87 counties had more than 20 percent of their population over age 65. In two counties, the proportion exceeded 25 percent, the highest being Traverse County in western Minnesota at 27.2 percent. By contrast, most of the metropolitan counties of the state have less than 10 percent of their population over age 65.

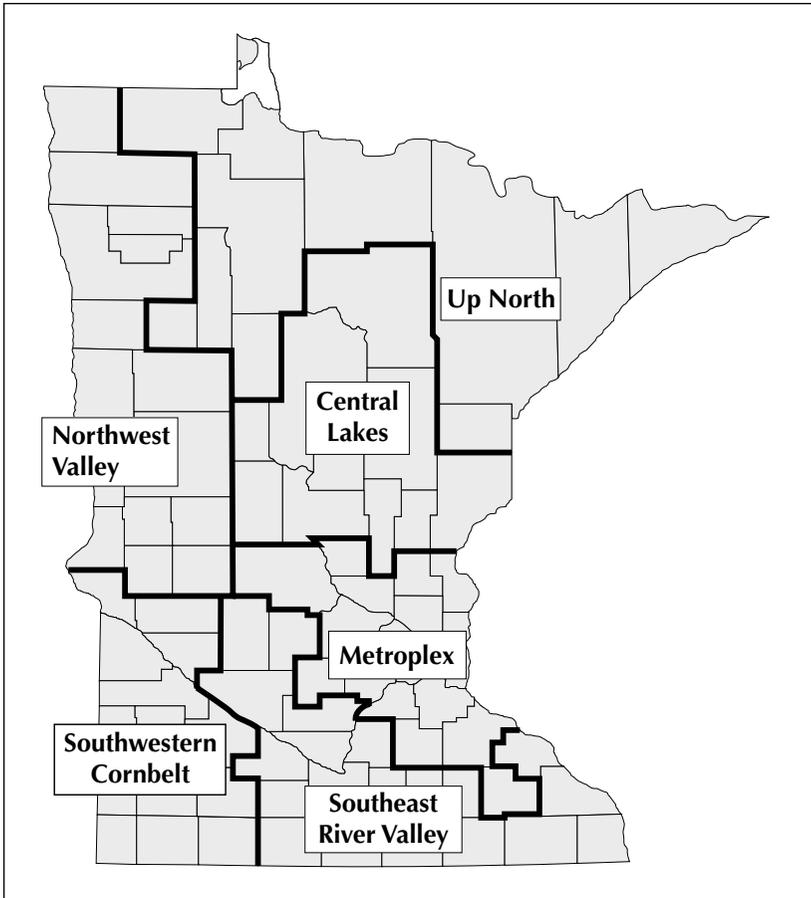
The experience of many rural areas is dramatically different from their past and from the current experience of most metropolitan areas. Rural Minnesota is now largely much older and more sparsely settled than in the past, while the metropolitan areas experience rapid growth, especially of younger people moving in. The difference between rural Minnesota and metropolitan Minnesota is large and growing. But even here, large differences exist among rural areas. Each area has unique characteristics and experiences.

Describing Rural Minnesota

The units of analysis for describing change in Minnesota have historically been either the county or the economic region. Rural Minnesota is experiencing dramatic and profound change. However, the boundaries of counties, a common unit of analysis to describe this change, have altered little in the past hundred years. Regional clusters of counties described as economic regions were created in the early 1970s have also changed little while the world they attempt to describe has changed greatly. These static boundaries miss the fact that great change has taken place and that social, environmental, and economic linkages are being forged between communities over ever-larger spatial areas.

An alternative way of thinking about rural communities is as spatially separated neighborhoods, with the network of related spatially separated neighborhoods contained within a ruralplex. The concept is similar to that of the metroplex, a collection of linked metropolitan areas. An essential difference between the two concepts is the lower population density of the ruralplex.

The ruralplex contains a number of communities, both incorporated and unincorporated, with similar characteristics that also happen to be spatially separated. Shared characteristics might include soil type, geology, climate, settlement patterns, and other similar characteristics. The ruralplex is not a fixed boundary, but evolves over time.



For the sake of analysis, we have divided Minnesota into five ruralplex areas and one metroplex. However, we should remember that these divisions are limited by existing boundaries and data availability. The concept of the ruralplex is fundamentally one of change and evolution, not of fixed boundaries.

We would do well to remember four fundamentals of the ruralplex.

1. Outside forces, economics and demographics cause them to evolve at different rates.
2. Ruralplex differ and one size does not fit all.
3. But the ruralplex share more similarities with each other than with the metroplex.

4. The large forces of global competition, demographic change, and technology are always changing the ruralplex.

Population Change In The Ruralplex

Population growth rates are sharply different among the five ruralplex areas of Minnesota. Strong growth continues in the Central Lakes, rivaling growth rates in the Twin Cities Metroplex, due largely to migration around lakeshore properties. Little population growth in the Southwest Corn Belt is projected, while recent past has seen substantial declines, especially during the disastrous 1980s. Growth in the other three ruralplex is projected to increase slightly, but still remain at modest levels.

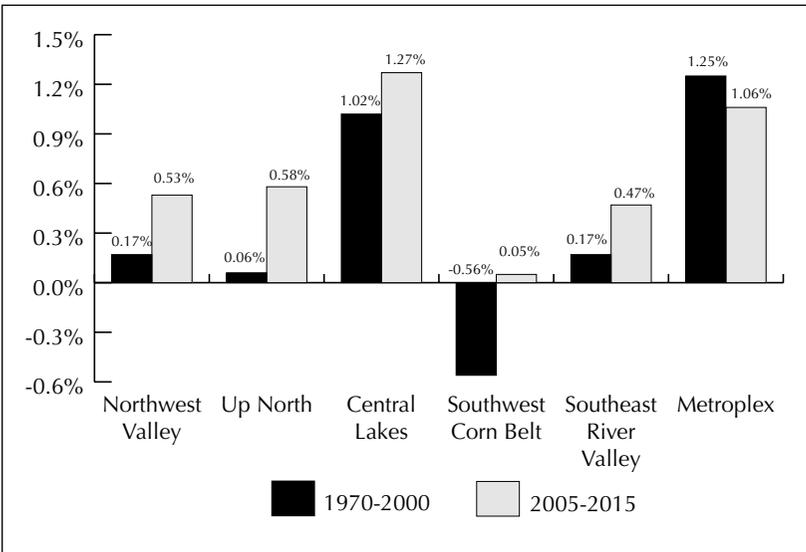


Figure 1: Population change 1970-2000 and 2005-2015, average annual rate.

Long-run out-migration of young adults from many ruralplex has led to an older population with relatively few people of childbearing age. The impact of this is relatively slow to negative natural increase, the difference between births and deaths.

Migration and the characteristics of migrants also contribute to population change. The Southwest Corn Belt and the Southeast River Valley are experiencing net out-migration. At the same time, the Central Lakes is experiencing a strong net in-migration, especially of mature adults seeking the amenities of the lakes area.

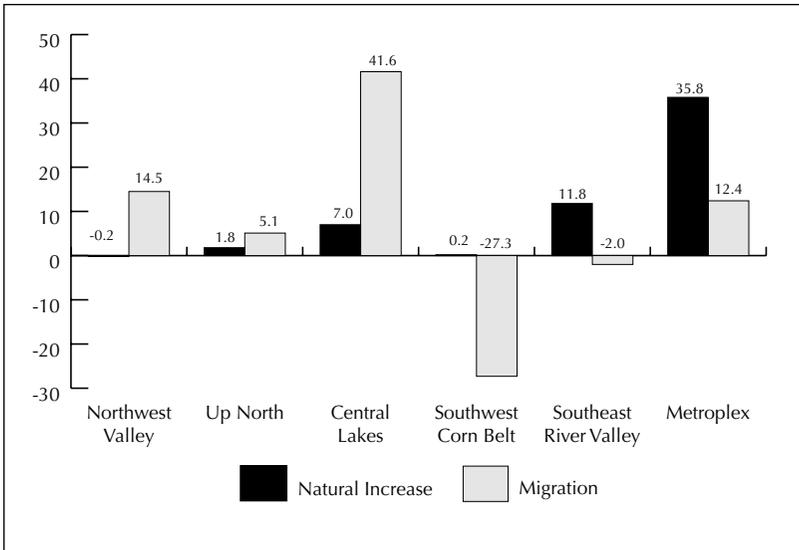


Figure 2: More ruralplexes see little natural increase; rate per 1,000 population in 2000.

The Northwest Valley and Up North are experiencing modest levels of net in-migration, coupled with little change from natural increase. The Metroplex, by contrast, is experiencing strong growth both from natural increase and from migration.

Population Change And The Labor Force

A critical element of future economic change and prosperity lies in the labor force, both in quantity and quality. Demographic change, especially in the next ten years, is critical to the economic vitality of the ruralplex. Economic growth is the result of growth in the labor force plus growth in per-worker productivity.

Growth of the labor force is projected to slow dramatically in the next two decades as the labor force ages and large numbers of workers approach retirement, followed by fewer new, young entrants to the work force. Aging and slowing of the growth of the labor force is a national issue and will be felt in virtually every corner of the nation, including Minnesota.

This overall slowing of labor force growth is exacerbated in the ruralplex by the relatively older populations with fewer young adults. While the number of young adults will increase slightly in the Metroplex during the next ten years, the number of young adults will fall sharply in each of the ruralplex areas of the state.

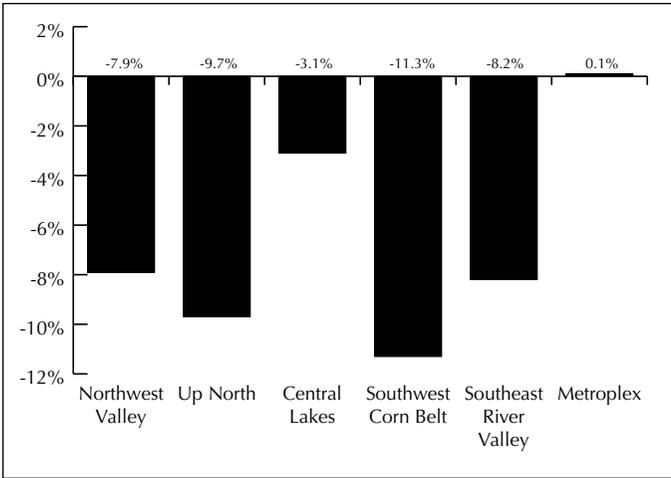


Figure 3: Projected change in future workforce, (population age 15-24), 2005-2015.

The net impact of these differences in aging is that most of the ruralplex areas will see slower labor force growth and growth substantially slower than in the Metroplex over the next ten years. The one exception to this trend is Central Lakes, which is projected to see labor force growth equivalent to the Metroplex.

The slowing in labor force growth will be especially noticeable

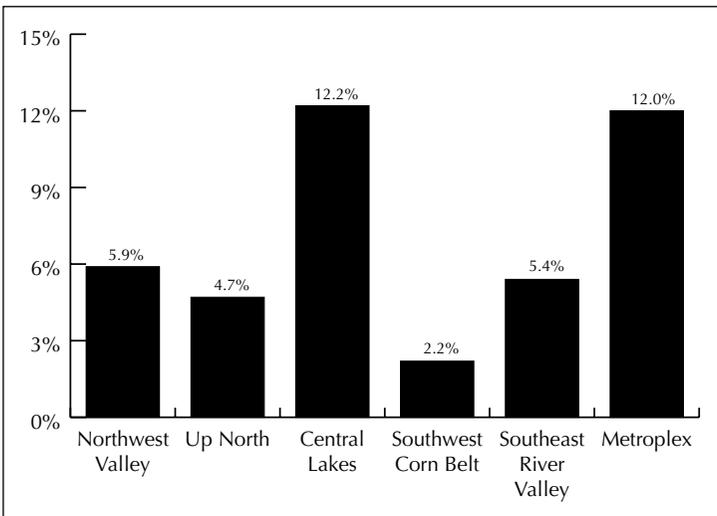


Figure 4: Percent change in labor force, 2005-2015.

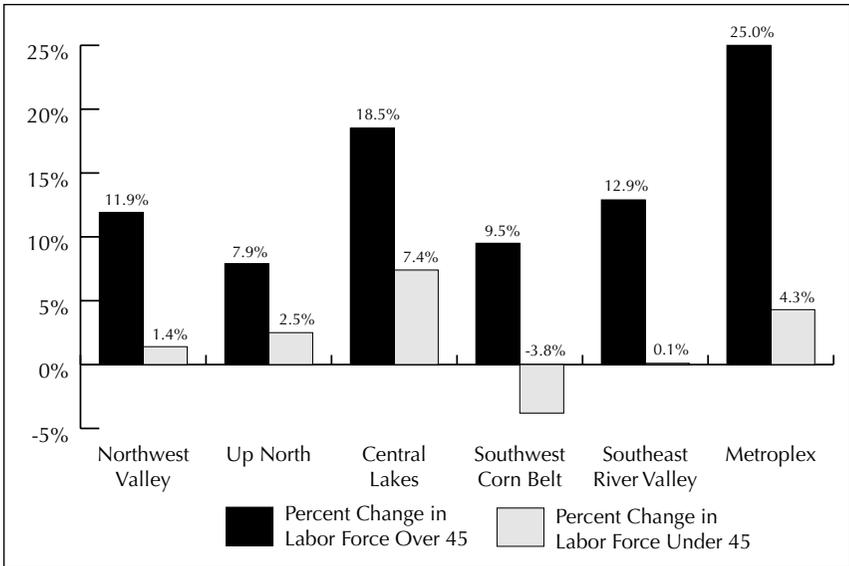


Figure 5: Percent change in labor force, 2005-2015.

in the Southwest Corn Belt, where substantial declines in the high school to college age population will contribute to a ten-year growth of 2.2 percent in the labor force.

Not only will the labor force grow more slowly, it will also age. Growth in the workforce age 45 and older will exceed growth in the under-45 workforce in all areas of the state. In three ruralplex areas, growth in the under 45 workforce will be vanishingly small to declining, including the Northwest Valley, Southeast River Valley and the Southwest Corn Belt.

With an aging and more slowly growing workforce, increases in per worker productivity will become increasingly essential to economic growth. Many factors contribute to per worker productivity, including technology, organization and management, industry and occupation mix, education, and training. While some of these factors are difficult to measure, education attainment is readily available. And here, the ruralplex does not appear advantaged relative to the Metroplex. A smaller proportion of the population in the ruralplex has education beyond high school. Similarly, a smaller proportion has an advanced degree.

Demographic change in the ruralplex over the past Century has been profound and dramatic with slower growth or declining populations led by substantial out-migration of young adults to the Metroplex. Rural Minnesota is already much older than the

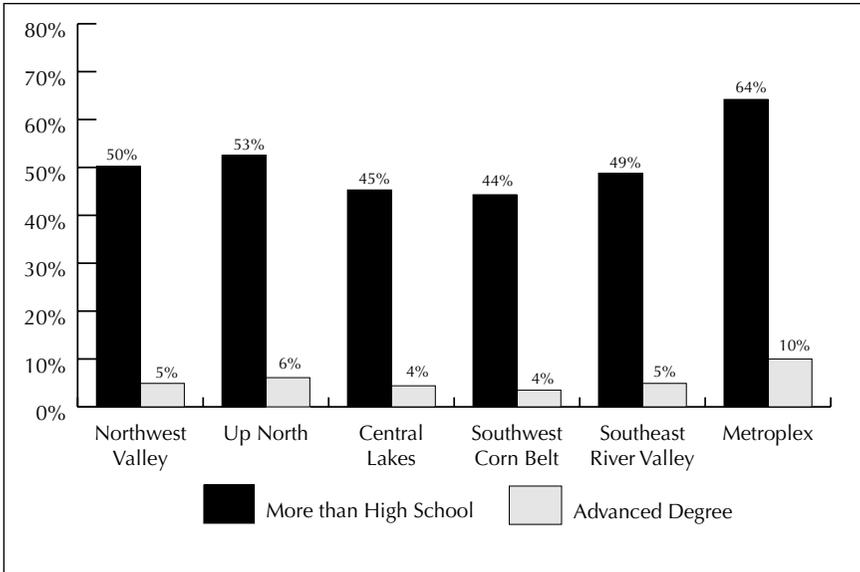


Figure 6: Percent of workers in 2000 with education past high school or advanced degrees.

metropolitan area.

The relatively greater age of the rural population will also increase as a result of the overall aging of the national population, strengthening any impact of the national aging process. While the effect on society of the aging process will be many and varied, one area of special concern is the age and size of the workforce. Economic growth of the future will depend to a large extent on the quantity and quality of the workforce.

In this regard, the ruralplex is especially challenged as populations are older, with fewer young adults to enter the workforce. Workforce growth will slow or even decline in much of rural Minnesota. Future economic growth will depend almost exclusively on increased per-worker productivity.

Minnesota Agriculture in the New Millennium

C. Ford Runge

Natural and Historical Antecedents

Minnesota is by any standard one of the leading agricultural places in the United States, both in terms of farm production and as a headquarters for some of the largest agrifood and agronomic enterprises in the world. This position is due partly to its soils, hydrology and climate, partly to its people and institutions, and partly to its location. The rich alluvial soils of southern Minnesota were pushed down from the Arctic 10,000 years ago by the last glaciers and deposited to sustain woodlands and prairies before settlement opened them in the 19th century. Once cleared (and later drained), these soils were highly suitable for crop production and grazing. Rich bottomlands along the Red, Minnesota and Upper Mississippi Rivers and their tributaries such as the Cottonwood and Crow Wing attracted early settlement. The karst geomorphology of the unglaciated Southeast left calcific soils which when cleared of trees were well suited to pasturage and dairying.

The rivers were also a mode of conveyance for agricultural surplus to points south and a source of power for both sawn timber and grain milling, notably at the Falls of St. Anthony in Minneapolis, where General Mills and Pillsbury were born. In 1870, the largest volume of grain exports from a single port was not from New Orleans or New York but Red Wing, Minnesota.² The Great Lakes made Duluth a favorable agricultural export platform, at first to the eastern U.S. and with the opening of the Welland Canal and Seaway in 1959, to markets in the North Atlantic.

In the early 19th century, over 200 years after the first explorations of the rivers and lakes of Minnesota by French missionaries and voyageurs, permanent settlement began. Minnesota's first settlers were mainly Canadians and Yankees, experienced in the timber and lumber trades, who sought to exploit the white pine resources

of the Upper Mississippi and St. Croix watersheds, establishing the first territorial settlement at Stillwater. Within a few years, before and after the Civil War, a steady flow of immigrant farmers from Germany, Norway, Sweden and the British Isles began to filter into the state. Many had come from farms in the Old World, and their communities could be distinguished by the architectural and linguistic traces of their homelands. These people put high stock in the value of education by supporting local schools and the Land Grant institution of the University of Minnesota. Founded in 1851, it closed during the Civil War and reopened in 1867 with the support of John Sargent Pillsbury. While Governor, Pillsbury helped it receive land grant status under the Morrill Land Grant Act of 1862. By the turn of the 19th century the U of M was one of the preeminent schools of agriculture in the world, a position that it retains today.

In rough terms, Minnesota can be divided into five agro-ecological zones. In the Northwest, the Red River flows toward Lake Winnipeg and ultimately Hudson's Bay. In its alluvial plain heavy soils are especially suited for potato and sugar beet production, resulting in major processing facilities in Moorhead and Renville. Further south, across a divide where water drains to the Mississippi, lies an area of former prairie and oak savanna where corn and soybeans are grown and cattle and beef are raised. In Willmar, due largely to the efforts of early entrepreneurs such as Earl Olson, a turkey industry has made Minnesota the number one producer of the birds in the nation. In the driftless (non-glaciated) Southeast, from Rochester to the Mississippi and south to the Iowa border, lies the picturesque, rolling country that is the historic center of Minnesota's dairy industry. Many small creameries there and throughout Minnesota formed the Minnesota Cooperative Creamery Association in 1921, which changed its name in 1924 to market its new sweet cream butter, becoming Land O'Lakes. The cooperative, now the nation's second largest, holds a dominant position in the U.S. butter market, but has expanded into many other agricultural enterprises, employing over 6,000 people. The northwoods, stretching from 30-40 miles east of Fergus Falls, north to the Canadian border and east to the Arrowhead and Lake Superior, was the land excoriated by the glaciers, where pine timber dominated. At the southern reach of these pineries, lands cut over for timber were planted to grain until the thin soils gave out and they reverted to pasture and annual grasses such as rye and legumes such as alfalfa. Finally, in the area to the immediate south and west of the Twin Cities was a region of hardwood forests (the "Big Woods") that became mixed farms serving nearby urban markets. In 2002, the leading agricultural

counties ranked according to percent of total state farm receipts were Stearns, Renville, Martin, Kandiyohi and Redwood, which together accounted for about 16 percent of Minnesota's total agricultural product value in that year of \$8.6 billion dollars.

The Present State

These natural and historical antecedents help to define the more recent characteristics of Minnesota agriculture. Most of Minnesota agriculture is in rural areas, but rural areas are not exclusively agricultural. In 1980, of the roughly 4 million people living in Minnesota, 33 percent lived in these rural areas. By 1990, Minnesota's population had grown to 4.4 million, of which 28 percent were rural. In 2000, of 4.9 million people, 28 percent remained rural. Latest estimates for 2004 indicate a population total of 5.1 million of which 27.5 percent were rural.³ It thus appears that the rural proportion of Minnesota has stabilized just above a quarter of the total. Not all of these people live on farms, although many are employed in businesses that depend directly or indirectly on production agriculture. In the mid-1980s, a study conducted for the U.S. Senate's Governmental Affairs Committee estimated that a \$1,000 increase in income for commercial farmers, other things equal, produced about a \$120 increase in income in the rural consumer goods sector.⁴ Even after the farm economy emerged from the financial crisis of the 1980s, rural incomes continued to trail urban averages. In 2003, Minnesota's rural population earned an average of \$27,828, while urban dwellers earned an average of \$45,845. Even so, the poverty rate in rural areas fell from 13.5 percent in 1989 to 8.9 percent by 2002. Unemployment in 2004 was 5.1 percent in rural areas, compared to 4.5 in urban Minnesota.⁵

Although non-farm employment in rural areas is significant, it is not surprising that jobs of Minnesotans are twice as likely to be in farming or farm-related activities in rural areas. While 24 percent of rural Minnesotans work in farming or related jobs, 12.5 percent of urban dwellers have agriculturally based jobs. Yet, only 2.9 percent of all Minnesotans work directly in production agriculture as active farmers. A much higher percentage, 9.8 percent, work in wholesale and retail businesses that are agriculturally based, including agricultural cooperatives such as Cenex Harvest States (CHS) or Northrup King Seeds (a subsidiary of Swiss-based multinational Syngenta), both of which are headquartered in the Twin Cities.

In general, the rural population of the state is less well educated than urban residents. In 1980 about 38 percent of both rural and urban dwellers had no education beyond high school. By 2000, 35

percent of rural Minnesota had finished only high school, while the percent in urban areas dropped to 26 percent. Those completing college in rural areas rose from 11 percent in 1980 to 17 percent in 2000, but in urban areas the percentage rose from 21 percent to 32 percent.

Minnesota's rural and urban land base totals about 51 million acres, of which farmland comprised 27.5 million acres in 2002, or 54 percent of the total. Of this agricultural land, 22.7 million acres (82.6 percent), was in crops and the remainder in woodlots, pasture, or other uses. The average farm size was 340 acres, although most profitable commercial farms were larger. Farms from one to 500 acres accounted for 81 percent of the total, while the remaining 19 percent of farms were larger than 500 acres, especially in Southern and Southwest Minnesota. Sixty-seven percent of all Minnesota farms had less than \$50,000 in sales, and 48 percent had less than \$10,000 in sales. Substantial crop and livestock operations with sales from \$50,000 to \$100,000 accounted for about 10 percent of the total, but commercial sales were concentrated in the \$100,000-\$500,000 sales bracket, with 18.5 percent of the total, while 4.5 percent of Minnesota farms sold more than \$500,000 in product.⁶

The majority of Minnesota farms are fully owned (63.5 percent in 2002), although many farmers, especially large land operators, rent land (30 percent in 2002). Only about 7 percent of Minnesota's farmers are tenants. Contrary to some popular myths, very few farms in Minnesota are owned and operated by corporations. In 2002, fully 90 percent of Minnesota farms were held by individuals as sole proprietors, another 3 percent as family-held corporations, and only two-tenths of one percent as non-family corporations, with one-half of one percent held by cooperatives, estates or trusts. The average age of Minnesota's farmers is 53, and 63 percent list farming as their primary occupation. Of the 80,000 Minnesota farms in 2004, only 6,370 were managed primarily by women, although this statistic seriously understates the role of women in the farm family.

Net farm income in 2004 was at record levels, as good yields combined with relatively favorable prices and ample government crop subsidies for many Minnesota farms. Net farm income rose from \$1.6 billion in 2003 to \$2.6 billion in 2004. Farm debt in 2003 was \$10 billion, compared to asset values of \$57 billion. These values result from production of a number of commodities which together place Minnesota seventh in state farm production in the nation. In 2003, the largest share of farm receipts came from Minnesota corn, accounting for nearly 20 percent of total receipts (\$1.7 billion), equal to 9 percent of the nation's total production value. Close behind was

soybeans, with 18.5 percent of total state receipts (\$1.6 billion), or 10 percent of the nation's total value. The next three commodities in order of value were hogs, dairy products and cattle and calves. Hog receipts were \$1.3 billion, accounting for 15 percent of the state's total and 12 percent of national totals. Dairy products' receipts were \$1.0 billion, 12 percent of the state total and about 5 percent of national dairy production value. Cattle and calves' receipts were \$989 million, 12 percent of the state total and 2.2 percent of the national total. The remaining 12 percent of state receipts were mainly accounted for by wheat, poultry, sugar beets and small grain and oilseed production.

One of the key features of Minnesota agriculture is that the state's 80,000 farms produce substantially more agricultural product than its 5 million people can consume, putting it on an export footing in relation to the nation and the world. Although located at the virtual center of the North American land mass, the Mississippi River and Great Lakes connect Minnesota to world agricultural markets in ways vital to Minnesota farmers. By one estimate, the cost to transport a bushel of corn by truck from Mankato to Port Cargill on the Minnesota River at Shakopee is about equal to the barge transport cost from the elevator at Shakopee to the Port of New Orleans. From there, the cost is about the same to move the corn from the Gulf to the Port of Rotterdam.

In 2004 Minnesota ranked third in the nation in exports of soybeans and soybean products (oil, meal, cake); these exports were valued in 2004 at \$878 million. The state ranked fourth in the nation in feed grain and product exports (mainly corn); these exports were worth \$718 million in 2004. Wheat was the state's third most important export, placing Minnesota sixth in the nation with a value of \$213 million. Minnesota also exported substantial quantities of fresh and processed vegetables, such as peas, potatoes and beans, ranking fourth in the nation and accounting for \$257 million in value in 2004. The final category of exports in which Minnesota plays a leading role, and the primary means by which Minnesota's feed grains and oilseeds are converted to add value, is live animals and meat, in which category (excluding poultry) Minnesota ranked sixth in the nation, with \$250 million in market value in 2004. Taken as a whole, Minnesota ranked seventh among the states in agricultural exports, which in the categories mentioned accounted for \$2.9 billion in value in 2004.⁷

In short, farming in Minnesota is generally a profitable enterprise, and has become more so in each of the last four years. In 2001, average net farm income in Minnesota was \$36,406. It rose to \$46,944 in 2002, \$59,205 in 2003 and \$74,391 in 2004. This is well

above per-capita incomes for the state as a whole, and in 2004 was nearly three times the state average per-capita income of all rural residents.⁸ A significant part of this income resulted from direct government payments to farmers through the commodity price support programs of the U.S. Department of Agriculture. In 2004, the average Minnesota farm received payments of \$24,231 from the U.S. government, almost exactly a third of the average per-capita farm income of \$74,391.

Given the strong performance of Minnesota agriculture in 2004 (granting that cyclicality in crop and livestock prices and rising fuel costs make doubtful that future years will be as profitable), it is curious that many farmers and non-farmers alike wax nostalgic over what the family farm was like in the past. The Minnesota Extension Service has compared farm returns and costs of living in the 1950s and 1970s with those of today.⁹ In the 1950s in south central Minnesota the average farm was 190 acres and generally more diversified than today, raising 20 sows, 12 milk cows, and planting corn, soybeans, cutting corn for silage and alfalfa hay for the cows. If the total income derived from this 1950s farm is adjusted and updated to 2004, it equals \$16,429. This compares to average farm household expenses in 2004 of \$56,073 assuming the household is debt free and pays no taxes. Hence a 1950s farm would leave an average farm family today \$39,643 in the red, necessitating off-farm employment of 40 hours per week at an average wage of \$20 per hour to make up the shortfall. If the same exercise is performed for an average farm in south central Minnesota in 1974, when average farm size had risen to 261 acres, with 23 sows and 25 milk cows, the adjusted net income is still only \$22,935, which is \$33,137 short of farm household expenses in 2004. In this case, full-time off-farm employment at a wage between \$16-\$18 per hour would be necessary to meet family living expenses. These exercises illustrate why farms that resemble those of the past struggle to survive, and why so many farm families must seek off-farm employment in order to meet household needs.

One of the most vexing problems facing the farm sector of Minnesota is that good returns and generous government payments are relatively quickly reflected in farm land values, bidding up the costs of entry for younger and beginning farmers. This places a premium on low levels of farm debt, encourages renting rather than purchase of land and tends to push the average age of farmers upward. In 2000, the average per-acre values of farmland and buildings in Minnesota was \$1,280. In 2001 this rose to \$1,360, in 2002 to \$1,450 and in 2003 to \$1,550, an increase of 6.9 percent from

2002-2003 alone.¹⁰ While this may seem like a good thing to those already owning farm land, the costs associated with this process of “capitalization” have negative long-term implications for the capacity of Minnesota farmers to compete with exporting countries, such as Brazil and Argentina, where land prices are much lower.

Future Trends

Several factors are likely to affect the future of Minnesota agriculture in the 21st century. First, the state is likely to remain a center of agribusiness activity and is emerging as a leader in the development of new technologies based in genomics and renewable fuels. Second, Minnesota agriculture will remain highly dependent on global markets and thus has a major stake in world trade. Third, domestic farm and fiscal policies will determine the extent to which the state continues to receive federal payments to farmers, who also depend on the overall health of the economy. Finally, the rising cost of fossil-fuel based energy has major implications for Minnesota farmers’ costs for fuel, fertilizer and transport. Together, these four factors describe an environment that will challenge Minnesota agriculture in the years to come.

Because Minnesota has a long history as an agricultural center, it has produced or attracted hundreds of agricultural and food companies. These range from giants like Cargill (the largest privately held firm of any kind in the world), to food companies such as General Mills, Pillsbury and International Multifoods. As noted above, it is also home to major cooperatives, such as Land O’Lakes and Cenex Harvest States, as well as seed companies such as Northrup King and Beta. Hundreds of smaller firms work alongside these large ones, providing an important part of Minnesota’s employment base. In order to attract a well-trained work force these companies rely heavily on the University of Minnesota and the Minnesota State Colleges and Universities (MnSCU). To the extent that the state underinvests in these post-secondary institutions, it will cause employers to seek young talent from elsewhere.

Among the spin-offs from this concentration of agrifood activities are new investments in emerging agricultural technologies. Two areas of technology development are likely to be of especial importance to Minnesota agriculture in the years ahead. The first, generally known as “biotechnology,” is really a branch of genomics, the application of genetic knowledge and information to the development of new plant varieties and uses.

Although the first 20 years of biotech research clustered on the East and West Coasts (especially in the biopharmaceutical

sector), plant and agricultural biotechnology may find a niche in the Upper Midwest, notably in Minnesota and Wisconsin.¹¹ In May, 2003, the University of Minnesota opened a \$20 million, 64,000-square-foot Microbial and Plant Genomics building, the first of its kind at a public university. Less than a year earlier, the University opened an \$80 million, 260,000-square-foot Molecular and Cellular Biology building. Already a global leader in biosciences research, the University of Minnesota is expanding the breadth and depth of its work in genomics-based plant and animal science. Apart from transgenic crops, which are having major impacts at the farm level (to be discussed below), markets for “functional” foods, “nutraceuticals” and new industrial uses for plants are emerging that may create numerous opportunities for Minnesota farmers. Cargill and Dow Chemical formed a joint venture, for example, to make plastic out of genetically engineered corn in a process developed by a newly graduated University of Minnesota Ph.D. working at Cargill. The plastic biodegrades to organic compost after use.

The number of agricultural biotech patents held by firms and universities in Minnesota and Wisconsin also suggests their leadership. In a 2003 article, University of Wisconsin-Madison economists found that the University of Wisconsin led the nation in agricultural biotech patents, while the University of Minnesota was eighth. As they noted, ag-biotech has its greatest impact in areas around major research universities such as the Twin Cities and Madison, and “local business spillovers seem to take place where universities happen to be located in the same state as major agribusiness companies.”¹² The Federal Reserve Bank of Minneapolis, although noting that biotech innovation may not always yield local payoffs, nonetheless described “Cargill, General Mills and Land O’Lakes” as “just a few of the likely catch basins inside the district.”¹³

At the farm level, the Minnesota impact of plant biotech’s first generation of traits (herbicide resistant corn and soybeans and insect resistant corn) has been dramatic. Since the introduction of commercial transgenic varieties of corn and soybeans in 1996, farm-level adoption in Minnesota has continued unabated. By 2003, the U.S. Department of Agriculture reported that 53 percent of Minnesota corn acres were planted to biotech varieties, compared to 40 percent in the nation as a whole. In 2004, the proportion of biotech corn varieties in Minnesota rose to 57 percent, compared with 46 percent in the nation as a whole. In soybeans, Minnesota planted 79 percent of its soybean acres to biotech varieties in 2003 and 83 percent to them in 2004. This compared to 81 percent of national

soybean acres in biotech varieties in 2003 and 86 percent in 2004.¹⁴

The second major area of technology in which Minnesota agriculture is increasingly invested is the renewable fuels sector. There is a bridge from plant biotech to renewable fuel due to the development of transgenic varieties of corn specifically adapted to ethanol production. Ethanol from corn and biodiesel made from soybean oil are both technologies which will benefit from biotech innovation and will find markets more easily as the price of petroleum-based fuels continues to rise. However, the impact of higher energy costs on farmers in Minnesota (discussed below) will probably overwhelm the benefits of increased markets for renewables, at least in the near term.

Even so, Minnesota has been aggressive in mandating the use and supporting the manufacture of ethanol and soy biodiesel. Ethanol production technology, until recently, involved the extraction of alcohol from corn slurry or other biomass in a process not unlike a giant whiskey still. In the last several years, however, significant steps forward have increased efficiency and lowered the costs of production.¹⁵ In January 2005 a new process for breaking plant cellulose into sugars (which are in turn fermented to make ethanol) was announced by two California companies who were already producing enzymes for weathering blue jeans. Using genetic engineering techniques, the companies found that they could reduce the cost of producing the key enzymes to 20 cents per gallon of ethanol. This compared to a prohibitive \$5.40 per gallon as recently as 2000. Lee R. Lynd of Dartmouth College has developed a combined-step ethanol process that could reduce costs even more.¹⁶ At the University of Wisconsin, George Huber and others are developing methods to derive biodiesel from cellulose sugars instead of the usual fractioning process from soybean or sunflower oil or waste grease. The most optimistic assessment, by the Natural Resources Defense Council, concluded that ethanol and biodiesel fuels, coupled with improved vehicle efficiency, could meet all the transportation fuel needs of the United States by 2050.¹⁷

The implications of these technological developments for Minnesota agriculture are significant. The U.S. Department of Agriculture estimated that 12 percent of the U.S. corn crop (1,370 million bushels) was required to produce 3.7 billion gallons of ethanol in 2005. By 2007, 20 percent of the crop (2,222 million bushels) will be required to produce a projected 6.0 billion gallons. Each billion gallons of ethanol requires 2.5-3.0 million acres of corn. As a major corn producing state, Minnesota will contribute a disproportionate share of this total.¹⁸

The Minnesota Department of Agriculture reported in early 2005 that in 2004 Minnesota produced 400 million gallons of ethanol at 14 plant locations throughout the state, from Luverne and Albert Lea to Morris and Little Falls. The Department estimated that the ethanol industry generated 5,300 jobs. Minnesota produced about 10 percent of the nation's total ethanol, placing it fifth behind Illinois, Iowa, South Dakota and Nebraska.¹⁹

In addition to ethanol, biodiesel fuels have been advanced aggressively in Minnesota. Available in Europe for over 40 years, biodiesel in Minnesota was promoted in 2002 by a legislative mandate calling for all diesel fuel sold in the state to contain 2 percent biodiesel so long as 8 million gallons of capacity had been installed by 2005. This made Minnesota the first state to mandate its use.²⁰ As of late 2005, plants had been established at Redwood Falls, Albert Lea and Brewster, with a combined capacity of 63 million gallons. Its impact will be primarily on soybeans, since much of it will be derived from soybean oil. The Minnesota Department of Agriculture estimated that the increased demand for soybean oil under the mandate would be 92 million pounds, equivalent to 8.5 million bushels of soybeans. Apart from its impact on the soybean market, biodiesel can also utilize (at lower cost than soybean oil) wastes from the fast food industry, specifically brown grease and inedible tallow and yellow grease. The Energy Information Administration estimated that in 2005-06, the costs of producing diesel fuel from soybean oil were \$2.49 per gallon in 2002 dollars, compared to \$1.39 per gallon for yellow grease. Together, waste greases accounted for 7,156 million pounds of available feedstock to make biodiesel in 2004 compared with 4,572 million pounds of soybean oil.²¹

A second factor that will determine the future of Minnesota agriculture is trade and competition with the rest of the world, as well as ongoing negotiations in the Doha Round of world trade talks. As described earlier, Minnesota is a leading exporter of its surplus production, and therefore depends on robust demand in the rest of the world to maintain farm incomes at home. If costs of production in Minnesota exceed those of exporting nations such as Argentina, Brazil and Canada, Minnesota's competitiveness will depend on maintaining higher levels of farm productivity, resulting from investments in science and technology. Moreover, growth in demand from other countries for Minnesota grains and livestock means that our farmers have a stake in their economic prosperity.

A central element defining opportunities in world markets for Minnesota farmers is the ongoing multinational trade negotiations

in agriculture, part of the larger Doha Round of trade talks. In 2002, and again in July 2005, the U.S. put forward a negotiating position saying that it was prepared to make significant reforms in domestic agricultural policies in exchange for increases in access to export markets abroad.²² This position, even a watered-down version of it, would result in cuts to the domestic subsidies received by Minnesota farmers. As discussed above, even in 2004, with farm incomes at record levels, average government subsidy payments accounted for an average of one-third of net Minnesota farm income. In years with weaker market conditions, cuts to the subsidy component of farm income might reduce net returns by 10-20 percent or even more. In particular, sugar producers and the dairy industry would be likely to see cuts.²³ In addition, the tariffs and quotas that are used to protect the U.S. sugar, dairy and beef producers would likely be reduced. This would put added pressure on Minnesota producers.

A third and closely related factor will be the shape of 2007 farm legislation, as well as the overall health of the U.S. economy. Due in part to the U.S. trade negotiating position, but even more to huge U.S. budget deficits made worse by hurricane Katrina and the (off-budget) obligations of war in Iraq and Afghanistan, there will be pressure to cut farm subsidies under the new farm bill. How large these cuts will be is essentially a political, not an economic question. More broadly, however, U.S. budget deficits will put upward pressure on interest rates. Agriculture is highly sensitive to the cost of credit. Both seasonally and over longer periods, farmers must borrow substantial sums to finance their operations. Hence, any upward pressure on interest rates will increase Minnesota farm costs and reduce margins.

A fourth area that will define Minnesota's agricultural future is energy use. Even before the run-up in fuel prices in the wake of hurricane Katrina, these prices were pinching Minnesota farmers' bottom line. In a widely cited study, oil industry analysts concluded in early 2004 that global totals of available reserves of oil had probably peaked and would head downward over the next century.²⁴

Reflecting these expectations, as well as bottlenecks in refinery capacity and natural gas production, both crude oil and fuel prices began rising dramatically in 2004. Crude oil prices rose from \$35 per barrel in June 2004 to \$68 per barrel in August 2005, and moved above \$70 per barrel in the fall of 2005. Natural gas, a major feedstock for nitrogen fertilizer as well as feed ingredient methionine, rose from \$5.25 per mmbtn in March 2004 to over \$9.75 in August 2005 and even further after Katrina interrupted refinery capacity in the Gulf. The result: higher fuel and fertilizer prices.

These prices are affecting everyone, but they hit farmers especially hard because of the number and size of their gasoline and diesel-powered vehicles, their harvesting and tillage equipment, grain dryers, dependence on truck transport, and their annual need for fertilizers. In April 2005, farm energy prices were estimated by two North Dakota State researchers at \$18-\$22 per acre. But from May 2005 to August, gasoline and diesel prices rose from \$1.80 and \$1.43 per gallon to \$2.68 and \$2.23 per gallon. The result was to almost double the share of fuel prices as a percentage of farm expenses from in the range of 5-10 percent to 10-20 percent. Fertilizer prices increased by about 75 percent.²⁵ The impact on farm incomes in Minnesota will be dramatic, although the full effect will not be felt until 2006, because many farmers contract forward for fuel and fertilizer. If predictions that we have entered a new era of higher energy costs prove accurate, it will pressure Minnesota farmers to find ways to conserve energy by using it more efficiently and perhaps restrict applications of nitrogen fertilizer, reducing yields.

Conclusions

Minnesota has a long and impressive tradition of agricultural production and productivity (at least by New World standards). From its frontier beginnings in the mid-19th century, it has emerged as a center of agricultural research, production, and business activity. It is currently a world leader in biotechnology and renewable plant-based fuels. To maintain this position, however, it will need to sustain and expand investments in technical capacity and the human skills necessary to stay at the edge of the life sciences frontier. This will not come on the cheap, for either the public or private sector. In the face of global competition, subsidy reductions, economic weakness, and rising energy costs, maintaining Minnesota's agricultural productivity is more important than ever.

Endnotes

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²⁴ *Christian Science Monitor*. "Has Global Oil Production Peaked?" January 29, 2004.

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Challenge Helps Promote Creativity

Joe Nathan

Challenge helps promote creativity. Declining enrollment, including but not limited to rural Minnesota public schools, is one well-known trend in Minnesota K-12 education. But the fascinating, instructive and often highly effective response to population decline is not nearly so well known. This paper will explore several important trends in Minnesota's rural public schools. They include:

- Doing an outstanding job of preparing students for higher education
- Fewer traditional school districts and more public school options
- Rethinking school facilities to increase collaboration and improve services
- Declining enrollment, accompanied by growing racial diversity
- The increasing use of emerging technology

A Minnesota Planning Agency report illustrates a common view of rural schools. The report noted, "Enrollment is declining in many rural districts " (Minnesota Planning). Declining enrollment in many rural districts is a fact. But the true face of rural education is far more complex than this one statistic.

This article cites a number of positive, encouraging and often ignored developments in Greater Minnesota. While not denying rural population declines, this report will focus on several things that have received relatively little or no attention.

Preparation for higher education

Let's begin with preparation for some form of post-secondary education. Research is accumulating steadily that education beyond

high school leads to better paying jobs, along with other benefits. U.S. Census figures show that over an adult's working life high school graduates earn an average of \$1.2 million, associate degree holders earn about \$1.6 million, and bachelor's degree holders earn about \$2.1 million" (Porter, quoting Day and Newburger).

There are many other benefits of higher education. College graduates have increased personal/professional mobility, improved quality of life for their children, higher levels of savings, and more hobbies and leisure activities. Research also shows a positive correlation between completion of higher education and good health, not only for oneself, but also for one's children (Porter, p. 2).

People in rural areas receive clear benefits from greater education. As the U.S. Department of Agriculture noted in 2002, average weekly earnings for non-metro college graduates were \$782 in 2002, compared with \$438 for high school graduates and \$502 with some college experience without a college degree (US Department of Agriculture).

Every year, millions of students graduate from high school in the United States. But as Dr. James Rosenbaum of Northwestern University points out, students often have the mistaken belief that they graduate from high school fully prepared for college (Rosenbaum). Very large numbers of students are taking remedial courses, especially in two-year colleges. For example, nationally, of the class of 1992, 25 percent of those who entered a four-year college and 61 percent who entered two-year colleges took at least one remedial course (Rosenbaum, p. 3). Forty-six percent of students who graduated from Minnesota public high schools in 2002 and entered two-year Minnesota colleges or universities took at least one remedial course (Minnesota State College and University System, 2005, p. 5).

Every year, Minnesota examines how well its public high schools are doing at preparing students for some form of public higher education. The University of Minnesota and the Minnesota State College and University System (Minnesota State Colleges and Universities, 2002, 2005) cooperate on research. The study looks at what percentage of students who graduate from all, and each, public Minnesota high school enter a public college or university within a year or two of graduating. The study also examines what percentages of graduates take at least one remedial course in a public college or university. The results are fascinating.

The *Getting Prepared* Study released in 2003 showed that about 39 percent of students who graduated in 2000 enrolled at public colleges or universities during the 2000-2001 academic year. Thirty-

three percent of public school graduates from the class of 1999 who enrolled in Minnesota public universities took at least one remedial course within two years of graduating (Minnesota State Colleges and Universities, 2002). A study released in fall 2005 found that the percentage of students who graduated in the classes of 2001 and 2002 and then took one or more remedial courses had increased to 36 percent, and that 49 percent of public high school graduates entered a Minnesota public college or university (Minnesota State Colleges and Universities, 2005, p. IV).

Researchers noted: "At Minnesota state colleges and universities, more thorough placement testing and enforcement of required developmental education account for at least some of this increase" (Minnesota State Colleges, 2005, p. v).

Nevertheless, whether the figure is 33 or 36 percent, it is, for many people, including this author, disturbingly high.

Having to take remedial courses is a big problem, decreasing the likelihood that a student will graduate. "Since the remedial courses often carry no credit, students who plan for two-year or four-year degrees discover that they cannot complete their degrees in the time they have scheduled or within the budget they have planned" (Rosenbaum, p. 4).

Moreover, one MnSCU researcher estimated that the cost of remedial courses at Minnesota State Colleges and Universities is about \$10 million a year, with about half coming from tuition, and the other half from the MnSCU system itself (Schoenecker). Minnesota has a huge stake, at both an individual and societal level, in getting as many high school graduates ready to enter colleges and universities *without* needing to take remedial courses.

Another important part of the *Getting Prepared* studies in both 2002 and 2005 showed the percentage of students from *each individual high school* that took at least one remedial course. The results surprise many people.

An analysis of this data, reported here for the first time, shows that *all* fifty of the high schools that had the lowest percentage of students taking a remedial course were in rural Minnesota. Forty-five of the schools were small. Only five of the high schools graduated more than 1,000 students over the four-year period 2000 to 2003. Three, Winona, St. Cloud and Mankato were in communities with state colleges (Nathan and Accomando).

It is fascinating to compare these rural high schools with a number of well-known metro suburban high schools. At least on this measure, dozens of rural high schools did better.

Less than one quarter (25%) of graduates from these 50 rural high schools who entered a Minnesota public college or university took a remedial course. Compare that to the state average of 36 percent, and to the percentages of well-know suburban high schools:

Anoka (40%); Blaine (41%); Bloomington Kennedy (44%); Coon Rapids Sr. High (45%); Eagan (40%); Edina (29%); Lakeville (34%); Minnetonka, (32%); North St. Paul High School (48%); Rosemount (43%); Simley-Inver Grove Heights (41%); Tartan (41%); White Bear Lake South (49%); Wayzata, (31%).

When this information was shared with a number of rural newspaper editors in October 2005, the responses were quite strong. "I'm stunned." "I'm shocked!" "Are you sure?" These were typical responses, followed by an invitation to write about this for a variety of rural publications.

Minnesotans generally assume that the best public schools are in affluent suburbs. Unquestionably, many good things are happening at these high schools. And it is not appropriate to judge a school only on one statistic.

But whether it is percentage of students fully prepared for public universities or other forms of testing, evidence is growing that some of the state's best schools are located in Greater Minnesota. And as mentioned above, *all* of the 50 high schools sending the lowest percentage of students needing remediation to public universities and colleges are in Greater Minnesota.

Table 1: Fifty Minnesota public high schools (class of 2000-2003) with lowest percentage of students taking remedial courses at public universities (MnSCU, 2005)

School district	High school	Total number of graduates	Percentage of graduates enrolled at Minn. public higher education	Percentage of HS grads enrolled at Minn. public higher education institutions who took developmental courses
Alden	Alden-Conger Sec.	148	46%	22%
Alexandria	Jefferson Sr.	1,346	52%	23%
Becker	Becker Sr.	513	42%	23%
Belgrade-Brooten-Elrosa	Belgrade-Brooten-Elrosa Sec.	268	65%	22%
Blooming Prairie	Blooming Prairie Sec.	287	63%	16%
Brandon	Brandon Sec.	97	67%	20%
Caledonia	Caledonia Sr. High	388	31%	17%
Canby	Canby Sec.	272	54%	22%
Chokio-Alberta	Chokio-Alberta Sec.	105	62%	15%
Clinton-Graceville-Beardsley	Clinton-Graceville-Beardsley Sec.	174	56%	13%
Evansville	Evansville Sec.	112	58%	22%
Fillmore	Fillmore Central Sr.	290	48%	24%
Foley	Foley Sr.	546	49%	16%
Glenville-Emmons	Glenville-Emmons Sec.	185	57%	20%
Goodhue	Goodhue Sec.	201	56%	16%
Granada Huntley-East Chain	Granada Huntley Sec	106	38%	20%
Hancock	Hancock Sec.	81	62%	16%
International Falls	Falls Sec.	473	57%	23%

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Janesville-Waldorf-Pemberton	Janesville-Waldorf-Pemberton Sec.	242	60%	16%
Kimball	Kimball Sec.	288	58%	23%
LaCrescent-Hokah	LaCrescent Sec.	524	30%	23%
Lake of the Woods	Lake of the Woods Sec.	215	52%	21%
Lewiston-Altura	Lewiston-Altura Sec.	299	52%	20%
Little Falls	Little Falls Sr.	1,070	56%	24%
Littlefork-Big Falls	Littlefork-Big Falls Sec.	106	53%	20%
Luverne	Luverne Sr.	403	46%	24%
Lyle	Lyle Sec.	79	61%	21%
Mankato	Mankato East Sr.	863	59%	18%
Martin County West	Martin County West Sr.	275	52%	22%
Melrose	Melrose Sec.	589	64%	19%
Minnewaska	Minnewaska Sec.	546	60%	24%
New Ulm	New Ulm Sr.	837	53%	24%
Norman County West	Norman County West Sec.	137	33%	20%
Parkers Prairie	Parkers Prairie Sec.	181	62%	24%
Pierz	Healy Sec.	328	61%	16%
Pipestone Area Schools	Pipestone Sr.	407	44%	15%
Plainview	Plainview Sec.	358	46%	24%
Red Rock Central	Red Rock Central Sec.	219	61%	23%
Renville County West	Renville County West Sr.	398	49%	23%
Sartell	Sartell Sr.	755	56%	20%
Sauk Centre	Sauk Centre Sec.	493	57%	22%
Sauk Rapids	Sauk Rapids	926	64%	24%
Sibley East	Sibley East-Arlington Sr.	379	55%	24%

Southland	Southland Sr.	242	60%	22%
St. Clair	St. Clair Sec.	180	61%	13%
St. Cloud	Technical Sr .	1,508	63%	20%
Swanville	Swanville Sec.	112	62%	23%
Upsala	Upsala Sec.	130	43%	18%
Walker-Hac kensack-Akeley	Walker-Hac kensack-Akeley Sec.	239	47%	23%
Winona Area Public Sc hools	Winona Sr.	1,233	49%	19%
	Minnesota New Country Sc hool			10% *

** Minnesota New Country in Henderson had 22 graduates in the 2000-2003 school years who entered Minnesota Public Colleges or Universities. Only two of those students took remedial courses. Due to the very low number of students, the report did not list MNCS individually in its chart.*

Table 2: Sample Urban and Suburban Schools, class of 2000-2003

School district	High sc hool	Total number of graduates	Percent of graduates enrolled at Minnesota public higher education	Percentage of HS grads enrolled at Minn. public higher education institutions who took developmental courses
Anoka-Hennepin	Anoka Sr.	2,418	58%	40%
Anoka-Hennepin	Blaine Sr .	2,222	55%	41%
Anoka-Hennepin	Coon Rapids Sr.	2,025	56%	45%
Bloomington	Kennedy Sr.	1,222	57%	44%
Burnsville	Burnsville Sr .	2,473	55%	38%
Edina	Edina Sr.	1,870	30%	29%
Inver Gro ve Heights Sc hools	Simley Sr .	972	60%	41%
Minneapolis	Abraham Lincoln High School	122	34%	86%
Minneapolis	Broadway Education Place	92	23%	57%
Minneapolis	Edison Sr.	840	47%	57%

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Minneapolis	Henry Sr.	601	46%	48%
Minneapolis	Loring-Nicollet	55	42%	43%
Minneapolis	North Sr.	660	39%	59%
Minneapolis	P.M. High School	138	16%	55%
Minneapolis	Roosevelt Sr.	656	55%	70%
Minneapolis	South Sr.	1,326	43%	37%
Minneapolis	Southwest Sr.	1,063	40%	41%
Minneapolis	Washburn	818	53%	53%
Minnetonka	Minnetonka Sr.	1,823	44%	32%
Mounds View	Irondale Sr.	1,425	48%	39%
Mounds View	Mounds View ALC	309	14%	72%
Mounds View	Mounds View Sr.	1,796	43%	33%
North St. Paul-Maplewood	North Sr.	1,523	52%	48%
North St. Paul-Maplewood	Tartan Sr.	1,293	56%	41%
Richfield	Richfield Sr.	940	58%	41%
Rosemount-Apple Valley-Eagan	Eagan Sr.	1,630	47%	40%
Rosemount-Apple Valley-Eagan	Rosemount Sr.	1,227	51%	43%
Roseville	Roseville Area Sr.	1,865	47%	37%
St. Paul	ALC Unidale	336	12%	54%
St. Paul	Arlington Sr.	919	46%	60%
St. Paul	Central Sr.	1,638	39%	42%
St. Paul	Como Park Sr.	1,019	51%	47%
St. Paul	Harding Sr.	1,367	47%	48%
St. Paul	Highland Park Sr.	918	43%	47%
St. Paul	Humboldt Sr.	456	36%	45%
St. Paul	Johnson Sr.	937	55%	48%

St. Paul	St. Paul Open School	95	38%	44%
Wayzata	Wayzata High	2,546	41%	31%
White Bear Lake	White Bear Lake South Sr.	2,593	55%	49%

What are some of these small rural high schools doing?

Sixteen percent of Blooming Prairie’s 2000-2003 graduates who entered Minnesota public colleges or universities took a “developmental” or “remedial” course. That’s less than *half* of the statewide average of 36 percent. And 63 percent of 2000-2003 Blooming Prairie graduates entered a Minnesota public college or university shortly after graduating, well over the statewide average of 49 percent.

Blooming Prairie superintendent Barry Olson offered several reasons. First, “being small allows us to know students well, and see who needs help.” Next, Blooming Prairie requires four years of math and has a strong math department. Finally, their required senior English class spends a semester on composition and research and a semester on literature (Olson).

Only 15 percent of Pipestone’s graduates who entered Minnesota public colleges and universities took a remedial course, while 44 percent overall entered Minnesota state public colleges and universities. Pipestone High School principal Joan Ratzloff offers several reasons for the school’s success: “First, no-nonsense but very caring teachers. They put rigor in the work. They have convinced many students taking challenging classes has a big payoff.” Ratzloff agreed with Olson that the relatively small size of the high school allows faculty to know students well. She also praised many parents for recognizing the value of advanced courses, and encouraging students to take languages, which helps strengthen many skills (Ratzloff).

Minnesota New Country School, a charter public school in Henderson, has one of the five best records in the state. This school enrolls about 125 students, grades 7-12. Each student has an advisor. The student, advisor and family develop an individual plan for each student. Much of the program at MNCS is “project based,” with students carrying out various interdisciplinary projects, individually or in small groups. Moreover, students are strongly encouraged to take at least one Post-Secondary Option course prior to graduation, and the vast majority do. Doug Thomas, who helped found MNCS, sees the combination of small size, individual attention, project approach, high expectations, multiple forms of measurement —

including periodic public presentations, and strong encouragement to participate in PSEO — as coming together to produce the very strong outcomes (Thomas).

Fewer traditional districts and more options

During the 1990s, Minnesota's legislature adopted two initiatives that resulted in somewhat contradictory results. First, the legislature provided financial incentives to encourage consolidation of districts. Secondly, it adopted the nation's first charter public school legislation, allowing educators and families to create new, potentially more innovative and effective public schools. People in Greater Minnesota have used *both* pieces of legislation.

The number of Greater Minnesota, traditional school districts dropped dramatically. Over the period 1990-2001, 164 rural districts consolidated into 75 districts. In several cases, school districts dissolved, with students attending nearby districts (Bolger).

At the same time, there was a dramatic increase of charter public schools throughout the state, including parts of Greater Minnesota. Thirty-six rural Minnesota communities now have charter public schools, enrolling thousands of students. (See)

These include many innovative approaches not otherwise available in the area. For example:

- Bluffview Montessori, in Winona, is one of the nation's first two charter public schools. The school draws students from a number of districts because of its Montessori program.
- Lakes International Academy in Forest Lake offers a Spanish-language immersion program for elementary students.
- Minnesota New Country in Henderson represents the nation's first use of the cooperative model to operate a public school. Teachers have formed EdVisions Cooperative to help them manage and operate their schools (www.edvisions.coop). With assistance from the Bill and Melinda Gates Foundation, MNCS is helping create such schools in other parts of the country. (For much more information see, Thomas, Enloe and Newell.)
- Rochester Off-Campus, which offers a strong small high school option for area students with whom large comprehensive high schools have not succeeded.
- Schoolcraft Learning Community for K-8 grade students near Bemidji, which offers French language for all students, plus a nationally validated curriculum based in part on the

Outward Bound Model.

- Harbor City in Duluth, housed on the third and fourth floors of a downtown warehouse. The school's location makes it far easier for its high school students to participate in internships and service projects in cooperation with local businesses and cultural groups.

Minnesota's Department of Administration noted that school districts are responding in a variety of ways to new choices that families have been given. Post Secondary Enrollment Options, which was adopted in 1985, has encouraged many school districts to create new courses, or develop new partnerships for more challenging education.

As an alternative to the post-secondary option, many public school districts are offering the College in the Schools program, which allows students to take college-level classes in their own schools. The number of students participating in these courses rose from an estimated 9,500 in 2000-2001 to an estimated 14,000 in 2003-2004 (Minnesota Department of Administration, p. 6).

Jerry Ness, Superintendent of the West Central Public Schools, near Fergus Falls and president of the Minnesota Rural Education Association, is a good example of both trends described above. West Central Public Schools represents a 1995 consolidation of four smaller districts: Kensington, Barrett, Elbow Lake and Hoffman (Bolger).

Ness recently described the impact of providing more options, such as Post-Secondary Enrollment Options, open enrollment and charter public schools, "You have to be innovative to survive. Giving students more choices among schools has made us much better."

Ness explained how his district has responded to PSEO: "To combat post-secondary options, we've made partners out of them, rather than enemies" (Ness). He listed several agreements with post-secondary institutions that his district has negotiated:

- Courses available at Alexandria Technical College.
- Colleges in the Schools with Fergus Falls Community College.
- Using the same software in certain courses as is used in post-secondary institutions, so that students are more familiar with what they will encounter later in their educational career.

Ness reports that the same kind of response is happening in many rural districts (Ness).

Gregg Allen, former principal and superintendent in the southern Minnesota Nicollet district, described how his district responded to Post-Secondary Options. With two post-secondary institutions less than 15 miles away, "We had to do something" (Allen).

Nicollet cooperated with Fond du Lac Community College to offer 16 credits a semester in courses that earned both high school and college credit. Before beginning the program, Allen interviewed students to see what they were seeking. "It wasn't just more challenging courses. They wanted to be treated more like adults. So we changed the schedule for them, set up a separate lounge, and began offering the courses between 10 and 2 p.m."

Response was very positive, both from the students and their parents. Every Nicollet junior and senior took at least one of these courses, and a number of juniors and seniors spent most of their time in concurrent courses. Allen notes, "Parents and students really rose to the occasion. The students asked to be treated more like adults — and when we did it, they showed us that they were ready." Allen hopes to create a similar program in Osakis, where he was recently hired to be superintendent (Allen).

Benefits from competition can run several ways, promoting new partnerships in ways not previously expected. "There's something important that you're missing. There's another benefit from the Post-Secondary Option program that you have not described. The benefits of competition can go two ways." That's what a western Minnesota school administrator explained, as we discussed Minnesota's Post-Secondary Options law.

The administrator agreed that Post-Secondary Options, now 20 years old, has encouraged many high schools to increase the number of advanced, challenging classes. As he put it, "That's true. Schools do this in order to retain students, who might otherwise attend a nearby or local college."

He continued, "But the program also has encouraged some colleges to become more responsive and cooperative with high schools." This was something I had not heard before.

Apparently, as the high school in his district began losing students to nearby colleges, the district administration asked if these post-secondary institutions would be willing to work with them to create what are often called "College in the Schools" courses. These courses, taught in the high school, offer both high school and college credit. The number of these courses has increased around the state

since PSEO, along with Advanced Placement and International Baccalaureate courses.

Initially, this administrator reported, neither nearby local higher education institution was interested in cooperating. So the district contacted another Minnesota state university that he had heard was open to this idea.

They were. Together the university and school district planned and began offering new College in the Schools courses, right in the high school. They were quite popular.

Hearing about this, a nearby community college changed its mind. Now its administrators were willing to help the high school offer more challenging, college-level courses in the high school.

These new courses are valuable new options for students. And the collaboration has helped high school teachers, who are working with college faculty to offer the courses.

Sometimes competition creates winners and losers — as in a basketball or football game. But in this case, it seems everyone has won.

Declining Enrollment, Greater Racial Diversity

Families are moving to the Twin Cities metropolitan area and to regional centers such as Duluth, Rochester, St. Cloud and Alexandria. Between the 1984-85 and 1998-99 school years, school enrollment dropped in 30 counties, primarily southern, western and northern areas of Minnesota. During this same time period, school enrollment rose overall 22 percent (Minnesota Planning).

Five years later, the picture is somewhat different. As a report from the Minnesota Department of Administration noted in its title, “Enrollment Declines are Widespread Since 2000.” This report noted that the pattern reported in 2000 of overall growth in school districts enrollments had ended.

In fact, statewide, public school enrollment declined between the 2000-2001 and 2004-2005 school years. While the number of limited English speaking and minority student enrollments increased, they did not grow enough to offset the decline in white enrollment. Public school enrollment fell from 845,040 in fall 2000 to 827,331 in fall 2004 (Minnesota Department of Administration, p. 1).

At the same time, the report noted, “immigration has greatly increased the proportion of limited English proficiency students in many small southern Minnesota districts such as Madelia, St. James, Tracy and Sleepy Eye. This transformed the percentage of limited English speaking students in Sleepy Eye, for example, from 13 percent in 2000 to 27 percent in 2004” (MN Department of

Administration, p. 8). Depending on how schools and communities react to new immigrants, immigration may increase, helping strengthen many rural communities.

The same report noted that while overall K-12 district public school enrollment has declined by about 2 percent from 2000-2004, "charter school enrollments surge[d]." Over the same period of enrollment decline in district public schools, charter enrollment gained 87 percent, from 9,384 in 2000 to 17,544 in 2004 (Minn. Department of Administration, p. 5). A record 23 new charters opened in fall 2005, and charter enrollment has grown to around 20,000 students. In fall 2005, new charter public schools opened in or near rural communities such as Grand Rapids, Green Isle, Naytawash, Rochester, Tofte and Worthington (Center for School Change Profiles of Minnesota Charter Public Schools).

Rethinking School Facilities to Improve Services

Some of the state's most intriguing interagency collaborations are being developed in Greater Minnesota. Here are a few examples:

Perham

The Perham Area Community Center (PACC) was, in part, a result of a failed referendum for new school district buildings in the late 1980s. Physical fitness facilities in the town's secondary school were more than 45 years old and almost certainly not worth the expense of expanding and improving. Several community leaders analyzed the vote and concluded that the public did not want to pay for a new gym and swimming pool. At the same time, several local businesses felt that the town, and their businesses, would be more attractive if there were an up-to-date exercise and physical fitness center (Anderson, Nathan).

The city, local businesses and the school district joined to create PACC. The building is located immediately next to the town's secondary school. PACC is a 66,000-square-foot building with several multi-purpose spaces. These include:

- Two racquet ball/walley-ball courts (similar, but not identical to volleyball)
- A roller-skating rink
- A swimming pool used by families, students and the broader community
- State-of-the-art physical fitness facility with a variety of weights and aerobic exercise equipment
- Whirl pool, kids' pool, wading pool, large swimming pool

- and sauna
- Dance studio
- Walking / running track
- Several large gyms

Perham High School’s Physical Education classes use the facility, which can simultaneously meet the school’s needs and provide an opportunity for community members to come in, for example, over a lunch hour to play basketball, volleyball or some other sport.

The building is open from early in the morning until late at night — on weekdays, for example, from 6 a.m. to 9 p.m., and many hours on Saturday and Sunday. Many community members use the facility along with the students. (See www.perham.com/pacc.)

Birch Grove

Birch Grove Elementary is located in Tofte, along Highway 61 north of Duluth. As veteran Minnesota educator Vicki Nelson wrote, “Birch Grove is a small school that has benefited from the resourceful, caring spirit of citizens in the North Shore communities of Lutsen, Schroeder and Tofte” (Nelson).

The Cook County District closed Birch Grove as an elementary school in 1984. As a result, local elementary students were forced to take long bus rides of 25 to 30 miles to attend an elementary school in Grand Marais. Many parents and community members disliked this idea — they wanted a nearby elementary school, and they did *not* want to have their children taking long bus rides each day.

After reviewing various options, people in the Birch Grove attendance area created Birch Grove Foundation, a private non-profit organization that worked with area townships, businesses and other groups to keep the school open. The Foundation leased the building from the school district. It rents space not used by students to other users, such as a medical clinic, commercial food preparation business, financial services office and youth hostel. On a recent morning, the directory inside Birch Grove Center read as follows:

Birch Grove Center

	Suite
Center Office	2
Gitchi Gam Hostel	4A
Computer Lab	1
Superior Financial	2
Classroom Grades 3,4 & 5	3
Library	4

Rural Minnesota Journal

Classroom Aides	5
Multi Use & Pre School	6
Community Room	7
Kitchen	8
Classroom K, 1 & 2	9
Clinic	Foyer
Banquet Space & Equipment	
Call 663-7977	

Birch Grove has been cited in a recent national publication about creative uses of rural school facilities (Lawrence).

Schoolcraft Learning Center

Greater Minnesota houses a number of camps that are busy and active in the summer. In many cases, these camps are not used during the fall, winter and spring. Not so for Concordia College's beautiful Lac Du Bois French Language Village, near Bemidji. This site doubles as a language camp in the summer and a K-8 charter public school in fall, winter and spring.

Schoolcraft opened in September 2000 after a group of parents and Bemidji State professors developed a proposal and convinced the Minnesota Dept of Education to sponsor the school. It uses the nationally validated Expeditionary Learning/Outward Bound model as the schools' core curriculum. Student learning revolves around thematic instruction units lasting three to four months called expeditions. These are designed to help students build strong academic skills, challenge them to expand what they think they can do, and promote teamwork among students of various ages. Each student learns French, and the language is used in many classrooms (Anderson, see www.schoolcraft.org).

Ten of the language camp buildings are used for student classrooms and project areas. The main building is used as a lunchroom, with French food featured.

At the end of the school year, staff members pack up their materials and equipment and store everything until the school reopens in the fall.

Harbor City International School

Schools usually are not found on the third and fourth floors of a former warehouse. But that's where Duluth's Harbor City International School is housed. The school provides an option for about 200 high school students from Duluth and surrounding communities.

The school's founders deliberately selected a site in the downtown area, within walking distance of an art museum, the YMCA, a large public library and many other business and cultural resources. Student internship and service projects are made much easier because of the school's location.

The school fills a previously vacant warehouse space, which has been transformed into a colorful and inviting location. Meals are purchased at a nearby restaurant and served daily in the school's kitchen and dining area. A separate student-run school store offers snacks and other items. Harbor City has been honored by DesignShare, an International Architectural Forum of Innovative Schools (see www.designshare.com/Awards) (adapted from Nelson, 2004).

Northfield Community Resource Center (adapted from Nathan, 2000)

"It's a dream come true." That's how Alene Fink, Northfield Senior Citizens Center director, described the magnificent new Northfield Community Resource Center when it opened in fall 2000 (Fink). Five major groups cooperated to create a \$5.5 million building that provides services and opportunities for everyone from infants to senior citizens. By working together, the groups created far more than any of them could have done by themselves.

The building has four wings and covers more than 58,000 square feet. It has 84 rooms, including a swimming pool, exercise room, cafeteria and eight conference/meeting rooms.

Discussions about a new home for Northfield Senior Citizens started about 1986. Over the last several years, a variety of groups joined the seniors to plan the center. Several years ago, 82 percent of Northfield voters approved a bond issue that helped make the dream real.

David Towle, 16, calls the building "awesome." Towle is a student at the Area Learning Center, a Northfield School that originally was one of the building's major tenants. ALC students have been able to interview senior citizens who come into the building as part of a local history project. Some students also assist in the Head Start program, another building tenant.

Mike Thorsteinson, Executive Director of Three Rivers Community Action, says, "Of all the public-private partnerships I've been involved in, this has been the most fun." He pointed out that the planning group overcame many obstacles, including some residents who wondered if folks of different ages could get along in the same building. Now that the building is open, the answer appears to be clearly, "Yes!"

His agency helped pay for part of the building. He believes that although the partners will vary, every community ought to consider how services can be improved when agencies work together to create something like this.

Scott Neal, City Administrator, believes the building shows it's possible to "bring together people with their own separate visions. Many times we could have tripped up, but we didn't lose sight of the end goal: helping people." Originally the city owned and managed the building on behalf of the partners.

Charlie Kyte, former Northfield Superintendent who is now Executive Director of the Minnesota Association of School Administrators, beamed as he walked through the building. "This process of working together, deciding our organizations could help each other, is almost as important as the final product. Everyone gains when people work together like this."

Carla Johnson, who later moved to Rochester, helped pull together representatives of various Northfield groups to plan the building. She told me, "I am moved to tears to see this actually happen."

For a free descriptive brochure, write to Northfield Community Resource Center, 1651 Jefferson Parkway, Northfield, Minnesota 55057. The five founding partners were: City of Northfield; Northfield Public Schools; Northfield Senior Citizens, Inc.; Northfield Community Action Center; Three Rivers Community Action Center.

Since opening in 2000, most of the original founding leaders have moved to other jobs. That, combined with economic downturn, has made operating the community center more of a challenge than originally envisioned. The district moved all its early childhood programs into the Center and moved the ALC to another location. However, all the original collaborating organizations remain involved. The Center continues to provide programs and services to its intergenerational clientele (Kyte).

A famous sign just outside of town reads "Welcome to Northfield: Home of Cows, Colleges and Contentment." It's time to add another "c" to that sign: cooperation. Northfield shows how it can be done (Nathan, 2000).

Rothsay Hardware Store

Since 1988, the Rothsay, Minnesota, hardware store has been owned by the school district. Just before being purchased, it was going to close. The owners wanted to sell it, but could not find anyone to buy it. That's when Tom Fosse, a local school board

member and visionary stepped forward.

Fosse convinced the school board and the broader community that running the hardware store would be a great work experience for local secondary students. It also would retain a business, and the funds it generated, in the community.

The program has evolved over the last several years. The hardware store now includes a lumberyard. In recent years, students have built and sold houses. Students also take on small construction projects. One example was lining and insulating a shed.

A few years ago, the district decided to add several grocery items such as eggs, milk and cheese to the items that are sold at the storefront, since the town no longer has a grocery store. Total revenue is about \$100,000 (Balken).

The Rothsay Hardware store has helped inspire many things. It's been written up in *the Wall Street Journal*. It's been described in a variety of national publications and helped inspire Minnesota State legislators to provide hundreds of thousands of dollars to help start school-based enterprises throughout Greater Minnesota.

Expanded use of emerging technology

Distance learning can be another form of collaboration. The Minnesota Planning Agency calls this "a strategy with great potential" (Minnesota Planning, p. 6). The report points out that this can involve videoconferences or the Internet, "so students and teachers do not have to be in the same classroom." Jerry Ness, president of the MREA and superintendent of Minnesota's West Central School District, calls this "another big wave," especially as "more and more of the online courses become interactive." His experience is that the most frequent use of distance learning via technology is for language instruction, i.e., Spanish, French, German, etc. A national study of distance learning found that the proportion of foreign language students enrolled in distance learning courses was considerably higher in rural areas (22%) than for suburban (10%) or urban students (5%) (Setzer and Lewis).

As Ness points out, "Many small districts find it difficult to afford, much less attract, a strong foreign language teacher, who may well just be needed for a couple hours a day. Distance learning allows rural schools to use expertise from another district or from a college or university. North Dakota State University has moved a number of correspondence courses on line. We're seeing more and more of this" (Ness).

Interviewed in spring 2005, several Greater Minnesota superintendents confirmed and expanded what Ness reports.

Superintendents in communities like Hibbing, Forest Lake and Rushford-Peterson reported their districts do not currently offer online courses, but as Hibbing Superintendent Bob Belluzzo explained, “we’re definitely thinking about it” (Belluzzo, Miller, Steenblock).

Other rural districts have moved ahead. For example:

- Milaca Superintendent Barbra Zakrajsek says her district offers two high school courses via television: Medical Technology and American Sign Language. She believes the courses have been received “very well” and that their district is considering doing more of this. She also reported that she and other district educators have participated in meetings via educational television and found them “a very good use of time” (Zakrajsek).
- Princeton interim superintendent Mark Sleeper says the district’s high school began offering half a dozen “online” courses during the 2004-2005 school year for high school students. Courses covered subjects like English, Social Studies and Family Living. Teachers were trained before offering the courses, which have been very popular (Sleeper).
- Mike Moriarty, Caledonia superintendent, reported that high school students in his district are taking a number of honors courses on line offered by Southeast Technical College in Winona. Moriarty praised the courses as “very challenging ... and a good deal for students.” Moriarty is very conscious, as are many superintendents, of the two online learning programs offered by one of his neighbors — the Houston, Minnesota, public schools.

Houston, Minnesota, school district offers the Minnesota Virtual Academy for K-8 students and the Minnesota Center of On-Line Learning for students in grades 9-12 throughout the state. Houston Superintendent Kim Ross explained that the district decided to offer this option because:

... One model cannot work for every student. We’ve created a wider variety of options for students. Every student is a unique learner. Using a wider range of services better equips us to serve students. Increased options have proven to attract students to public education. Online programs are consistent with our mission to maximize student achievement (Ross).

Steve Kerska, who has been in education for 29 years, directs Houston's Minnesota Center of On-line Learning. He sees online learning as a strong option for some students. He's found that the most successful students in their program are self-motivated and self-disciplined. Online learning seems to work well for some students with special needs who reported that they did not feel comfortable asking questions in class. Another group attracted to online learning is gifted and talented young people, who want to move more quickly than some classes allow. Kerska reports that both the K-8 and 9-12 online programs doubled in size over the last two years. He expects another doubling with the next year or so. "If we do it right, this is here to stay" (Kerska).

A major national study of distance learning conducted by the U.S. Department of Education found that in 2002-2003:

- Nationally, 36 percent of public school districts reported having some students enrolled in distance learning courses. About 8,200 public schools, approximately 9 percent of all public schools nation wide, were participating.
- A higher percentage of rural districts (46%), compared to suburban (28%) and urban districts (23%) were using distance learning.
- Reasons cited as "very important" were "having courses not available at the school (cited by 80% of participating schools), meeting needs of specific students (59%) and offering Advanced Placement courses (50%).
- 55 percent of districts offering distance learning reported using two-way interactive video; 47 percent used Internet courses using asynchronous computer-based instruction; 21 percent reported using Internet courses using synchronous computer-based instruction; and 16 percent reported using one-way prerecorded video.
- 72 percent of districts with students enrolled in distance education courses planned to expand their distance education courses in the future.
- Nationally, the most frequent distance education courses were social studies/ social sciences (23%), English (19%), mathematics (15%), natural/physical sciences, (12%) and foreign language courses (12%).
- The vast majority of participating students, nationally, are in high schools: 76 percent in high schools, 15 percent in combined or ungraded schools, 7 percent in middle or junior high schools and 2 percent in elementary schools (Setzer and Lewis).

Interviews with eight random rural Minnesota superintendents, cited above, do not represent a scientific sample. But their experiences are remarkably similar to findings of the federal study. About half of their districts are using some form of distance learning; world language is the most frequent distance learning course offered, most of the students participating are of high school age, and many of the districts are planning to expand their distance learning efforts.

Conclusion

This article has summarized five trends in rural Minnesota public education:

- The fifty public high schools that lead the state in preparing the vast majority of students for post-secondary education are in rural Minnesota
- Fewer traditional school districts, accompanied by many more choices in public education.
- Declining enrollment, along with increasing racial diversity.
- Rethinking school facilities to improve services.
- Expanded use of emerging technology to help students learn.

The picture that emerges as this author talks with, and visits, various rural Minnesota communities is two-fold. First, there is a recognition that the world and rural communities are changing rapidly, in ways documented elsewhere in this journal. Second, we are finding very creative responses to a changing world. The author hopes that by noting a few of these changes, others are encouraged to focus not on what has been lost, but what can — and is being done. As one poem affirms:

“Here’s to the crazy ones

The misfits

The rebels

The troublemakers.

The Round pegs in the square holes

The ones who see things differently.

They’re not fond of rules.

And they have no respect for the status quo...

They invent. They imagine. They heal.

They explore. They create. They inspire

They push the human race forward.
Maybe they have to be crazy....

While some see them as the crazy ones,
We see genius.

Because the people who are crazy enough to think
They can change the world, are the ones who do."
(Apple Computer)

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Representation and Legislative Power: Overcoming Rural Minnesota's Representational Deficit

Christopher P. Gilbert

In the 40 years since the United States Supreme Court offered its “one man, one vote” formula for political representation, state legislative district maps have come to reveal what might be termed a spatial paradox: geographically small districts represent concentrations of political power, while large districts equate to something of an empty power base. This paradox is driven home in presidential election years: the 2000 and 2004 county-level maps of voting patterns show broad seas of Republican red counties surrounding small pockets of blue, where Democrats dominate.¹ The rough parity that exists between the two major parties is obscured by the sheer amount of one color, denoting hundreds of sparsely populated areas that vote overwhelmingly Republican but that are balanced almost exactly by urban centers and several suburban areas that deliver numerically large advantages to the Democrats.

At the state level, a better though still misleading indicator of political power emerges from state legislative district maps. These, too, offer a mix of large and small geographic areas, and overlaying a color scheme would produce a similarly misleading portrait of political power. In fact, the physical size disparity across districts masks the essential point of recent representational jurisprudence: the most “fair” system of representation consists of districts with essentially equal populations, and deviations from this standard of fairness are at least unrepresentative and in some cases unconstitutional.

Any discussion of “fairness” when considering state legislative representation in Minnesota must acknowledge that for decades the division of the state into districts was less than fair to large metropolitan areas. In 1950, for example, Hennepin and Ramsey counties combined had 34.5 percent of the state’s population but less than one-quarter of the seats in the House and Senate (Kise 1958, 75). The 1959 redistricting plan (the first such plan in half a

century) began the state's movement toward greater equality in representation, while recognizing the concerns this raised outside the Twin Cities. Even this initial redistricting, however, left over half the state's House districts in rural areas (Mitau 1970, 87). As longtime University of Minnesota political scientist Charles Backstrom wrote in his 1981 analysis of these state legislative reapportionment plans, "Several small rural districts, all under DFL control, were allowed to remain in existence despite population losses so as not to give declining rural Minnesota the full shock treatment that complete population equality in legislative district populations would have entailed" (Backstrom 1981: 172).

Full shock treatment indeed. Today, 54 percent of state House and Senate districts (36 Senate, 72 House) are classified as lying in the Twin Cities metro area; including districts comprising the growing exurbs surrounding Minneapolis and St. Paul would push this figure over 60 percent. Eight more geographically compact House districts take in most of Duluth, Mankato, Rochester and St. Cloud. These concentrations leave the rest of the state with essentially one-third of Senate and House districts, approximately 60 percent of which are presently represented by Republican legislators.²

"Fair" representation by population is thus a relatively recent development, driven by court order and population shifts, whose full impact continues to unfold. The most obvious way to perceive shifts in legislative seats over the last century is to consider the Twin Cities metropolitan area to be the vortex of a whirlpool, inexorably sucking in seats from most corners of the state, and expanding in size as the Twin Cities region grows outward. In light of this trend, the key question to address is: in what ways does a numerical deficit of representation in rural Minnesota constitute a *representational deficit* — that is, a lack of political power that renders outstate communities unable to achieve legislative goals and dependent on the votes of urban and suburban legislators for their due share of state funds and attention.

Strength in number? Concepts of representation

Common sense suggests that legislatures dominated by representatives from urban and suburban districts will make decisions that benefit those areas to some disproportionate degree. There is no reason to believe that the self-interest of urban and suburban representatives is stronger or weaker than that of rural legislators. Yet discerning what distribution of state resources would constitute a disproportionate share for any part of any state

is extraordinarily difficult and bound to be largely subjective. For one thing, state spending cannot help but to focus on the places where people live; population-based formulas will dictate spending levels in a host of important areas within the state budget, and high-population counties and cities have their own resource bases with which to fund schools, parks, social services, and other government functions and civic amenities. Moreover, the categories of urban and suburban might describe residential environments that differ from rural ones, but it is not true that urban and suburban legislators think and act alike (implying that their preferences will always outvote the wishes of rural members), or that they perceive local and state issues in identical ways.

Absent a simple measure that would indicate fairness in the distribution of state resources, it is more useful to understand the motivations of legislators in general, and to use these lessons to evaluate the concept of representational deficits for rural Minnesota in particular. Four factors in particular stand out in this analysis as essential to understand: styles of legislative representation; the unique political culture of Minnesota; the role of interest groups in the legislative process; and the role of legislative leadership, especially the presence of key legislative leaders who represent rural districts.

Representation styles and consequences. From the founding of the American republic, political leaders understood that legislators would represent their constituents and home areas with vigor; this understanding came with due concern for the resulting effects on government and the governed. Madison's classic commentary on factions in *Federalist #10* recognizes this tension in pondering the optimal size of districts in terms of the likely focus of legislators' interests:

By enlarging too much the number of electors [i.e., numerically large districts], you render the representative too little acquainted with all their local circumstances and lesser interests; as by reducing it too much, you render him unduly attached to these, and too little fit to comprehend and pursue great and national [and state] objects.

Note the interplay of personal and public goals for legislators that Madison cites: "local circumstances and lesser [read numerically small but still important] interests" must be acknowledged and understood by representatives, but these same elected leaders must

also see the big picture, serving the interests of their state at large rather than only the narrow concerns of their constituents.

Madison believed as an article of faith that citizens would choose enough legislators possessing the proper attitudes to “refine and enlarge the public views,” so that factions — especially locally strong political interests — could be controlled by representative government at the national and state levels. But no guarantees exist, and the tension between a legislator’s role as delegate of her constituents’ desires and trustee of her state/nation’s best interests endures— in fact must endure within our system of government.

Most conceptions of representative roles assume that election results reflect underlying public preferences for a particular party or candidate, and by extension a ratification of sorts for party and candidate platform stances. The empirical evidence suggests this does in fact occur across the American states. In a major 1993 study, Robert Erikson and colleagues found that state Democratic and Republican party elites were more liberal and conservative, respectively, than their citizenry (1993, 96-119). This is no surprise, and it is surely still true today in a more polarized political environment. More importantly, Erikson and colleagues also found that state Democratic and Republican parties did respond to public opinion, were rewarded or punished at the polls for their responsiveness (or lack thereof), and tended to moderate their policy positions as a consequence of their responsiveness, “perhaps even to the point of enacting similar policies when in legislative control” (Erikson et al. 1993, 139).

Political culture. The tendency of state parties to move to the center is mitigated by state political culture, among other factors. In the late 1960s the political scientist Daniel Elazar devised a typology of political subcultures for American states, connecting his categories with styles of representation and policy enactment. Elazar conceptualized political culture as “commonly held assumptions about the proper roles of the citizenry and elites and about the appropriate goals of government action” (Erikson et al. 1993, 152). Elazar classified Minnesota as a moralistic political subculture, indicating an overriding concern for the public welfare and “the belief that government should be an active agent for the public good” (Erikson et al. 1993, 153).³ Nearly all Minnesota political analysts have agreed with this classification, finding evidence of moralistic approaches to policymaking under both DFL and IR/Republican administrations, at least through Arne Carlson’s tenure as governor (e.g. Elazar, Gray and Spano 1999).

Using Elazar’s moralistic classification, Erikson and colleagues

found that when such states have political parties offering clear and distinct policy positions, small electoral shifts can produce sizeable changes in policy — that is, winning parties will seek to implement their own particular vision for the state, interpreting election results as a mandate for a shift to their policies (Erikson et al. 1993, 173-176). Indeed, this phenomenon is considered one of the signal virtues of a moralistic political culture. In one form or another, the general public considers it appropriate that a victorious political party will move toward enactment of its platform, thus perpetuating a cyclical process in which electorates reward or punish parties for their successes and failures in the policy process.

Interest group politics. Beyond political culture and the interplay of public opinion and party platforms, a third significant factor to consider when interpreting legislative behavior is the growing visibility and importance of outside influences — interest groups and lobbyists. Nearly every state has seen an increase in the number of organized interests since the mid-1970s; moreover, institutions (as opposed to membership groups and associational groups) constitute the largest share of organized interests in Minnesota and other states, with their share of the interest universe rising over time as well (Gray and Lowery 1999: 245-251). Even so, the universe of interest organizations and lobbying groups is not at all constant over time; one study found that a high percentage of Minnesota's registered lobby groups in 1980 had ceased to function as lobby groups (and in many cases had ceased to exist at all) by 1990 (Gray and Lowery 1999: 247).

The capacity of organized interests to influence the legislative process rests with resources as well as visibility and the possession of what political scientist James Q. Wilson terms a “niche,” in which a group has “a distinctive area of competence, a clearly demarcated and exclusively served clientele or membership, an undisputed jurisdiction over a function, service, goal, or cause” (Wilson 1973, 263). One example of a successful niche organization in Minnesota would be Minnesota Citizens Concerned for Life (MCCL), the state's most visible pro-life organization. A major reason why leading national Christian conservative groups (most notably the Christian Coalition) have failed to gain a foothold in Minnesota politics is because MCCL has so effectively secured its niche, and the consequent flow of resources and attention that accompany its position (Gilbert and Peterson 2003).

Even the successful acquisition of a niche in some specific policy area ensures no success for organized interests. In practice, in Minnesota and most other states, interest groups find themselves

constantly struggling with competing groups as well as like-minded allies. As a consequence, legislators who are open to suggestion will rarely hear only one side of an issue. The common and simplistic wisdom, therefore, that interest groups frequently “buy” votes and significantly influence legislative outcomes is not borne out by logic or the empirical evidence. Instead, for most issues interests check other interests, which only complicates and impedes the passage of legislation in state governments (Gray and Lowery 1999, 262).

Moreover, in considering interest group influence from the perspective of rural legislators and rural issues, it is not clear that interests offer a significant advantage or boost to the chances of legislative success. Most statewide groups are organized around and focused on specific policy domains, not geographic areas, and hence their goals will surely include issues of greater significance to outstate Minnesota but are not likely to focus exclusively on such issues; nor are most groups likely to pose policy questions and solutions aimed specifically at rural communities and problems. This problem is worth returning to later, but it should be noted here that a relative lack of visible group focus on rural issues does not at all imply that most interest groups in Minnesota are unconcerned with specific issues facing rural communities. Organized interests, in other words, are inevitably part of the equation when analyzing legislative actions, but their organization along policy lines does not preclude the possibility that such groups can work together on outstate concerns.

Legislative leadership. A final factor that accounts for legislative behavior and the effectiveness of rural representation is who holds the leadership positions within the legislature. If it is true that all legislators will put the interests of their constituents at or near the top of their personal agendas in office, then it must also be true that legislators with more power inside legislative bodies will more effectively serve and satisfy constituent wishes. The academic literature and journalistic accounts of the U.S. Congress are filled with anecdotes about committee chairs bringing their districts more than their fair share of discretionary funds, using their influence to gain tangible benefits for constituents. Also worth considering, key committee chairs and party leaders can direct the flow of funds to other members’ districts, trading on such favors later when votes and support are needed.

State governments have a more limited capacity to offer specific benefits to legislators and their districts than does the national government. Regardless, Minnesota’s legislature has structured itself in ways quite similar to Congress, resulting in numerous power

centers to be occupied by senators and representatives. Who gets to serve in key positions depends on seniority, experience, expertise, adherence to party goals, personality and other tangible and intangible factors. There is no doubt, however, as will be elaborated later, that party caucuses seek to use major legislative appointments to satisfy different factions within the party coalition, a practice that certainly results in rural legislators holding some of the high profile, most powerful positions in the state House and Senate.

This is admittedly an overly simplified description of how particular legislators come to occupy their seats of power. The essential point is that if a representational deficit does exist for rural Minnesota, the most direct means of counteracting or offsetting that deficit is to have rural legislators occupy some of the most powerful positions in St. Paul. This is of course precisely the situation we find in Minnesota today, and its consequences are worth exploring at length below.

Evaluating rural representation in Minnesota today

Each of the four factors discussed in the previous section has some role to play in considering how rural Minnesota is represented in St. Paul, and the extent to which rural representation is effective. The importance of representational style is perhaps the most difficult factor to pin down with any certainty. A typical rural legislator advertises her work in office with a strong emphasis on issues facing her own constituents. Sample press release titles on one current member's website highlight support for ethanol as a rural economic development strategy, comment on a local county as "a great place for farmers," and generally focus on what matters to constituents. While the specific issues may be unique to rural districts, the pattern of responding to local needs is no different in form to what one finds in the press releases of members representing Minneapolis or Stillwater. Moreover, a perusal of the press releases of DFL rural representatives versus Republican outstate legislators reveals nearly identical themes and issues. The stereotypical belief that all DFLers favor governmental solutions while all Republicans favor market-based and private solutions is not supported empirically; rural legislators of both parties tend to celebrate the unique nature of their communities and to call for greater government-sponsored economic development strategies targeted at rural communities and rural issues (not to mention support for school funding, health care, elderly programs, and law enforcement).

In other words, representational style alone cannot close the representational deficit that rural Minnesota faces. If all legislators

push their own district's needs to some extent, rural legislators are simply outnumbered and always will be. Intriguingly, a recent study of state legislatures that have implemented term limits for members found that in such states, legislators spent less time working to secure specific benefits for their districts and spent more time thinking about statewide concerns (Brace and Ward 1999, 93). But the term limit movement has petered out at all levels across the nation, stymied by court rulings and the changing views of former proponents who now find themselves enjoying seniority advantages they find hard to cede voluntarily. It is unlikely that a unicameral arrangement would alter the fundamental representational dynamic, either, although this possibility has at least a chance (albeit quite slim) of coming into existence.

Interest group activity, for reasons noted earlier, is also unlikely to advance the cause of rural Minnesota in ways that offset the numerical advantages of urban-suburban districts, let alone to promote policies that disproportionately benefit outstate communities. Environmental and education issues, broadly construed, might offer the most benefits from organized interest activity. To be sure, Minnesota like most states finds environmental issues often typecast into misleading either-or choices (i.e. "jobs versus preservation") that hamper progress, but the importance of parks and natural resources within the state's overall culture commits a broad segment of the state's population to caring about the future of these resources. Consideration of environmental challenges is an issue that resonates across the state, rather than within one type of community, a key factor that suggests rural legislators (in whose districts most state parks and national forests lie) will find many allies among organized interests and fellow legislators.

Political culture and leadership offer more direct venues for the exercise of political power from rural Minnesota. Beyond the moralistic style that leads legislators of all stripes to consider government intervention as a legitimate response to public policy concerns, issues facing rural Minnesota are also confronted most directly by a bipartisan legislative cohort. Most rural legislators today are Republican, as noted earlier, but outstate areas also include historically strong DFL regions to the west along the borders with North and South Dakota, and on the Iron Range. These areas represent the seedbeds of the DFL's founding era and remain highly important symbolically even as they shrink numerically. Considering the close divisions between the two traditional major parties in the state legislature today, every district is important and thus the

unique political interests of rural members from both parties must be accounted for in some tangible fashion.

A final consideration in this partisan analysis is whether legislative control by one party or the other inherently favors or hurts rural interests. Once again, the moralistic strain of Minnesota politics argues against significant differences. Although current Republican rhetoric (especially the battle cries of key interests like the Taxpayers League) is anti-government, often stridently so, one can point to numerous initiatives during the Pawlenty administration that have directly benefited rural communities, or that were consonant with issues of importance to rural legislators. In fact it is striking to find solid Republican support, from the Governor and legislative leadership, for several such initiatives opposed by visible Republican ally groups — for example the JOBZ program, expanding ethanol content in gasoline, moving pseudoephedrine sales behind pharmacy counters.⁴ The evidence suggests that rural Minnesota is not disadvantaged by Republican control of the state government, nor it is necessarily advantaged by DFL control; as long as both traditional major parties hold a significant share of rural district seats, as is likely to be the case for the foreseeable future, rural interests will be represented and both party leaderships have a vested stake in responding.

Moreover, the visibility and salience of rural issues are heightened by intangible cultural factors as well. There is something politically important in the idea that the “real Minnesota” starts beyond the 494-694 beltway, and by extension the belief that real Minnesotans reside outside the Twin Cities region. Such an ethos often permeates uniquely Minnesotan cultural forms. Lake Wobegon most definitely does not lie inside the beltway, and images of church basement lutefisk dinners and Scandinavian social reserve describe rural communities much better than suburban ones. One consequence of this ethos is that candidates and public officials pay attention to rural Minnesota as a way of demonstrating authenticity with their political base. They show concern in part because concern for rural Minnesota’s future is warranted, but also because it is politically useful to appear informed and involved in order to gain credibility and win votes. A DFLer must do well on the Iron Range in any statewide race, mobilizing voters and generating some buzz, and this perception often rests out of proportion to the Range’s actual numerical contribution to DFL vote totals. Norm Coleman’s 1998 campaign for governor notably failed to connect with outstate issues and residents, leaving the impression that the city-bred St. Paul mayor wasn’t ready to serve the entire state; by contrast, in the

2002 U.S. Senate race Coleman was far more effective and credible in discussing agricultural and economic development issues, a significant factor that helped him achieve parity in his race with Paul Wellstone, and eventual victory over Walter Mondale.

Hence in numerous ways the political and social culture of Minnesota supports the interests of rural populations. But many of these connections remain intangible, and by themselves they offer a weak foundation for countering real or perceived representational deficits. More important to the equation is leadership, the most obvious and most salient way in which rural representational deficits are “corrected” in Minnesota today. Senate Majority Leader Dean Johnson represents Willmar, continuing the recent tradition of outstate DFL senators like Roger Moe and John Hottinger leading that body; Senate Minority Leader Dick Day hails from Owatonna, on the outskirts of the Twin Cities region. On the House side, farmer and Kenyon resident Steve Sviggum has served nearly a decade as Speaker; the GOP House leadership team is split between suburban and rural members. Interestingly, only the DFL House leadership team shows a tilt toward the Twin Cities (leader Matt Entenza and two of three minority whips; the third whip, Tony Sertich, represents Chisholm on the Iron Range).

We cannot definitively say that state-level interest in rural issues depends on having rural legislators in these positions of power; many more factors pertain to what kinds of bills are proposed let alone whether legislation passes or fails. However, in combination with political culture there is no doubt that more than mere symbolism accompanies the composition of the current state legislative leadership. Legislative leadership carries with it the capacity to direct policy agendas, to frame issues in ways that benefit the leaders’ constituencies, and to help reinforce unity among the disparate (geographical, if not ideological) factions that comprise the GOP and DFL. Unity within party coalitions is also a feature of moralistic political subcultures, and the presence of rural members in the highest legislative offices contributes not only to this unity (however imperfectly realized it may be in practice), but also to the presentation of significant issues as statewide, Minnesota concerns, rather than as concerns affecting one or two areas of Minnesota. This final point offers an important lesson for rural Minnesota’s political interests: the best means for rendering representational deficits moot is to frame issues in ways that bring rural and urban-suburban legislators into the same conversation about shared concerns, rather than separating issues in ways that highlight rural members as numerically weak or deficient compared to their Twin Cities area peers.

Concluding thoughts: Multiple issue clusters, one state

Increasingly there are encouraging signs that legislators from both traditional major parties have begun — once again, returning to the norm in Minnesota for most of the post-World War II era — to perceive most critical state issues as common problems rather than as problems confined to one region, one type of community, or one economic sector. Framing policy problems as statewide involves more than rhetoric; it is a substantive approach that offers opportunities to build bipartisan coalitions, and it provides a way for representatives from all corners of the state to see their constituents' agendas translated into sensible, effective public policy.

Several recent examples suggest the possibilities. The problem of methamphetamine production came to the forefront just a few years ago due to concerns especially in outstate communities, where sparsely populated areas were more likely to be used for production. But meth usage and abuse, and their concomitant social problems, were never confined to small towns. Relatively quickly, a coalition of organized interests and legislators moved to implement solutions that so far look promising in addressing the problems — increasing attention to drug education, restriction of ingredient sales, stiffer penalties for producers, more detailed disclosure requirements in real estate transactions. This is a wide ranging list of reforms, most of which passed easily through the legislature.

A better example with considerable potential for reshaping Minnesota public debate is the bipartisan 2020 Caucus, a mix of urban, suburban and rural legislators with a forward-looking agenda framing key state issues in broad terms (Sturdevant 2005).⁵ The issue agenda of the 2020 Caucus is replete with problems and concerns that strike directly at quality of life issues across the state: early childhood education as a wise investment for strengthening K-12 education and a host of related social systems; immigration patterns and the growing diversification of the state population; the “graying” of Minnesota’s population and its implications for health care, social services, and community life; supporting transportation systems that respond to energy concerns and residential concentrations. None of these issues, nor any of the other important problems identified by this group and its allies, is confined to one type of community or one region of Minnesota. More significantly, the proposals that will surely come from the 2020 Caucus’s work are most unlikely to devolve into “us versus them” political battles that burn bridges rather than building them. The founding principles guiding the development of specific policies to meet identified needs

already incorporate the tools that overcome such negative ways of thinking. And the presence of rural legislators among the mix of guiding hands will help ensure that the statewide focus remains central to this caucus's vision.

Judging from the public reaction to the last four state legislative sessions, it is clear to most Minnesotans that the work of their state legislature must take a different tack. Rural Minnesota can only benefit from positive, future-oriented, broad-based strategies to confront the problems facing rural areas and the state as a whole. Rural Minnesota will also continue to reap the benefits that attentive, highly qualified representatives — especially those serving in leadership capacities — can bring back to their constituents. Most important, an attitude change that frames the state's concerns as shared ones — and frames solutions that benefit all sectors — offers the foundation for a representative system that encourages all legislators "to comprehend and pursue great ... objects" rather than narrow, parochial goals. Rural Minnesota is not likely to ever reverse its numerical representational deficit; hence recasting rural interests as Minnesota interests offers the best prospects for the future.

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Endnotes

¹ One such map, showing 2000 election returns, can be found at: <<http://nationalatlas.gov/printable/elections.html#list>>. Note the reverse color scheme of this map; Democratic counties are shown in red, Republican counties in blue.

² The most detailed, accessible state legislative district maps can be found in print via the *Legislative Manual* (2003-04 edition, pp. 294-295), available in most public and academic libraries; and on the web at the Secretary of State site: <http://www.sos.state.mn.us/docs/state_mn_oss_website.pdf>.

³ Political analysts today tend to vest the term "moralistic" with very different connotations. Elazar's use of the term does not imply or refer specifically to moral-social issues such as abortion or gay rights; the more general idea of government as a legitimate agent of change and societal improvement lies at the heart of this categorization. Certainly the advocacy of different policies on these highly charged contemporary issues is consistent with moralistic governing, but in fact any significant use of government to achieve social change is a hallmark of the moralistic subculture.

⁴ See the Taxpayers League legislative scorecard (<<http://www.taxpayersleague.org/pdf/legscorecard2005.pdf>>) to note the language with which this group describes many of the proposals noted here.

⁵ The founding eight members and their districts are: Senators Scott Dibble (DFL-Minneapolis), Geoff Michel (R-Edina), Mee Moua (DFL-St. Paul), and Julie Rosen (R-Fairmont); and Representatives Joe Atkins (DFL-Inver Grove Heights), Laura Brod (R-New Prague), Paul Kohls (R-Victoria), and Paul Thissen (DFL-Minneapolis).

Minnesota County Government: A History of Accomplishment, A Commitment to the Future

James Mulder

Minnesota county government has a long and venerated history that can be traced back to the original thirteen colonies and further back to England and France. With a few Minnesota counties established before Minnesota statehood, county history is a story of accomplishment and an ability to meet service delivery challenges throughout our state's history. What began as a county "local government" function and role has evolved into a joint responsibility of being both a "local government" and an "administrative arm of the state."

Counties have traditionally been the hidden level of government. County services are primarily delivered to those most in need and those who have run afoul of the law. The average citizen would know that the county collects property taxes, manages land records and does something or other with welfare. Generally, the list of things that counties do that the citizen is not aware of is much longer than the know list.

But even with a long history of success and achievement, Minnesota county officials have determined that county government, as it operates today, is not sustainable. The public is demanding greater efficiencies and the elimination of redundancies in how local government services are delivered. In fact, many county officials have come to the conclusion that without reinventions of what counties do and how counties deliver services, there will be a breakdown in the ability of counties to provide and deliver needed services to county citizens.

To meet this challenge, the Association of Minnesota Counties, a voluntary association of Minnesota's 87 counties, is sponsoring the Minnesota Counties Futures Project, a project that is asking a group of county officials, led by Anoka County Commissioner Margaret Langfeld, to explore how Minnesota county government can change to meet the demands of the 21st century. This paper attempts to outline the history and challenges county government has faced and sketch out a direction for the future of Minnesota county government.

A brief historical background of the Minnesota county

County and other local government units in the United States can trace their origin to the original thirteen English Colonies established in America. Not surprisingly, the colonial form of local government was developed by early Americans along lines similar to the local government institutions existing in England at the same time. Therefore, a historical background of Minnesota Counties must include a short discussion of English local government as it developed in the 16th and 17th centuries.

The history of English local government has its beginnings at the end of the first millennium and the beginning of the second. During this period of time, the English rulers organized their kingdoms in what were called shires. The creation of shires was often a result of political or filial patronage as the Crown would reward particularly loyal knights or give the third cousin on their spouse's side a home far from the central palace. Within each shire, the Crown would appoint a 'reeve.' In some cases the appointee was known as the 'shire reeve' but then contracted to the name 'sheriff.' The sheriff was responsible for carrying out the administrative fiats of the Crown. These fiats often centered on collecting taxes and recruiting/drafting/conscripting boys and young men into the service of the Crown.

During the first half of the second millennium the English Crown appointed additional local officials such as constables, justices of the peace and coroners. By the early 1600s, the Crown permitted the election of a surveyor of highways. Although local roads were generally maintained by a labor tax that required the citizenry to work on the roads, provision was made for the levying of a highway tax.

A second part of English history that had an impact on the formation of American counties was the separation of the English government from the Roman church. As the government of England separated from the Roman church, church officials lost their power and control over local governments. Civil courts became common but the church maintained responsibility for matters such as marriage and divorce, proof of wills and the administration of estates and guardianships. By the early 1700s, most of these duties had also been shifted to civil courts and administrations.

A third event of note was the passage of what became generally known as the Elizabethan Poor Laws, the first of which was passed in 1601. Poor relief was originally identified as the responsibility of the church, but a series of acts by the Crown were adopted and poor relief and welfare became a responsibility of the state.

Colonial history and county development

Not surprisingly, the English Colonies were established using many of the institutional structures and titles that had been found in England. In 1643, the Massachusetts Colony was divided into four shires. Within a few years of their founding, representatives from the towns located within each shire came together to establish the parameters for governing the shires. Among other powers, the shire governments were given the power to equalize taxes among the shires. The term county, a French word used to describe colonial regional government, first showed up in the Colonies of New York and Virginia. In these colonies, county supervisors were appointed by the colonial governor to serve on county boards.

The colonists who pushed westward into what became the Northwest Territory brought existing government systems with them, along with a number of innovations that formed the basis for county government in the mid-western states. The first county officials in these territories were appointed by the territorial governor to what was often called the county court. By 1800, the typical county was electing county boards, sheriffs, coroners, justices of the peace, treasurers and clerks of court.

It should be noted that there is no cookie cutter symmetry in county development across the country. There are county supervisors in New York and California, county freeholders in New Jersey, county commissioners in Ohio, Minnesota and many other states, county jurymen in Louisiana, county judges in Texas, etc. Just as there are many titles for persons who serve on a county (or parish in Louisiana) board, the roles and responsibilities also can be markedly different.

A few examples may be helpful. There are no county roads in Pennsylvania. North Carolina county boards are responsible for adopting the county public school budget. In about a dozen states, including Minnesota, counties are responsible for the delivery of social services, while in the majority of states, these services are delivered by the state. On a continuum of level of service measure, Minnesota counties are considered full-service counties.

Just as there is no identical set of responsibilities for counties, the geographic and demographic makeup of counties in each state also varies greatly. In total there are 3,033 counties across the United States. Two states (Connecticut and Rhode Island) do not have counties. Texas has the largest number of counties with 254. In Texas you will find the county with the smallest population (Loving County) and in California, Los Angeles County has the largest population, with over 9 million inhabitants. In physical size, Arlington County,

Virginia, is just 26 square miles as compared to North Slope County, Alaska, with a land area of over 87,000 square miles.

Minnesota county development

The Minnesota Territory was established in 1849 and included a portion of the Northwest Territory (Wisconsin Territory) and the northern portion of the Louisiana Purchase west of the Mississippi River. Stillwater, for instance was once part of St. Croix County, Wisconsin. Alexander Ramsey, the first territorial governor of Minnesota, proclaimed that the new territory would be governed by the same laws as those existing in Wisconsin. This, combined with the fact that the majority of migration to Minnesota came through Wisconsin and America's northern tier of states, encouraged the development of a strong county and town form of government similar to that found in Wisconsin, Michigan and New York. This tradition of strong local government continues to this day.

The first Minnesota counties established by the territorial legislature on October 27, 1849, were Benton, Isanti, Ramsey, Wabasha and Washington. Three additional counties, Mankato, Pembina and Wahnata were also established in law but they were neither organized nor abolished. Fifty-seven counties were established during the territorial period, which ended with statehood in 1857. The youngest of Minnesota's eighty-seven counties was created by a popular vote of citizens in 1926 from the area that had been Beltrami County. The vote split Beltrami County in half and created Lake of the Woods County to the north.

Thomas Jefferson would have been proud of how Minnesota was established both philosophically and physically. Jefferson believed in lots of governments and high levels of participation in those governments. The physical establishment of Minnesota counties came after President Jefferson's order to survey the Louisiana Purchase. As one looks at the southern third of a county map of Minnesota, you see the results of that survey. County boundaries are symmetrical and in most cases follow that survey. It was Jefferson's belief that the size of counties established should be no larger than an area that would allow a citizen to travel on horseback to and from the county seat in one day.

The physical size and shape of Minnesota counties in the central third of Minnesota, although often having straight lines as boundaries, are strongly influenced by the physical characteristics of the land. Rivers such as the Minnesota and Mississippi were critically important determinants for the establishment of county boundaries. Often, there were no easy ways to cross natural boundaries and they

became county borders. Determinations of county boundaries in the northern third of the state were strongly influenced by the regional economics of the fur trade, large tract agriculture, mining and the lumber industry.

The original organizational structure of Minnesota counties was also very Jeffersonian. While electing only a few officials in their early years, Minnesota counties added numerous elected offices over the next sixty years. Each was given very independent authorities. Not only were five-member county boards elected, other county elected officials included the county sheriff, county auditor, county treasurer, county recorder, county attorney, county court administrator, county judge, county coroner, county surveyor, county assessor, county engineer, county superintendent of schools and more. Some have speculated that if it had been proposed to the state legislature in the early 1900s, counties would have elected the "building maintenance engineer/janitor". An interesting historical side note is that the auditor, treasurer, recorder, etc., were often called row officers as their offices were often lined up in a row in courthouses. The challenge of this structure was that each of these offices was given statutory responsibilities and each was independent of the others. The only connection between the "row" offices and the county board was the county board responsibility and authority to levy property taxes. It should also be noted that during the early years of statehood, county boards met only one or two times a year.

Since the 1930s, the legislature has moved to streamline the organizational structure of county government, and most of the elective offices are now appointed. The offices that still remain elected in all 87 counties are the county board of commissioners, the county attorney and county sheriff. In addition, most counties still elect a county recorder, county auditor and a county treasurer, although the offices of county auditor and county treasurer have been combined in a majority of counties.

Minnesota county government

Minnesota counties are creatures of the state. Established under Minnesota statute, counties face the daunting task of serving in two distinctly different roles with a distinction that is often muddled and muddled. The first of those roles is as a local government providing local services at the behest and demand of county citizens. Traditionally, this role centers on services such as roads, bridges, jails, public safety, preservation of land records, etc. But even these services are not just local in nature and are not limited exclusively to county government. Roads may, for instance, serve both a local function

but may also have regional and national utility. Roads may be the responsibility of a town, city, county or the state. It is a rare, observant citizen who understands and recognizes when they are driving on which type of road.

The second role of county government is to serve as an administrative arm of the state and federal governments. As an extension of these other governments, counties are mandated to deliver services that are determined not by the county board but by Congress and/or the state legislature. This administrative role is as equally challenging as the local government role, and it is often hard to distinguish where the state or federal mandate ends and where local administrative authority and discretion begins. An additional role twist centers on the fact that Minnesota counties each developed unique structures, policies and practices to carry out their joint missions.

The Dillon Rule

A key element for understanding the workings of local government is to have an understanding and appreciation of the extent which cities and counties can make independent decisions and the extent to which they are extensions of state government. Just as Hamilton and Jefferson, two of our nation's founders, played tug of war over whether the federal or state government was the supreme power in the land, so too have local governments struggled to establish an independence from state authority.

As the reader is aware, the United States system of governance has multiple different levels. These levels (federal, state and local) each have a specific role to play in providing public services. At times, the authority to provide services is redundant with more than one level of government providing the same services, and at times there are gaps in the delivery of services. While the challenges of jurisdiction are at times still evident, two defining decisions made by the Iowa Supreme Court in the 1880s clearly outlined the relationship between local autonomy and state supremacy. These decisions have commonly been titled "Dillon's Rule."

Early state constitutions gave local governments direct representation in state legislatures, which allowed local governments a large degree of local autonomy. By the mid-1800s, widespread corruption in municipal government was extremely prevalent and a broad debate ensued over local government autonomy. Local government corruption most often manifested itself in two forms: patronage-based, awarding jobs, contracts, licenses and franchises; and the deliberate creation and extinction of municipalities to avoid accumulated debt. These actions prompted litigation in various state courts

over the appropriateness and rationale for local government independence. Judge John Dillon of Iowa was one of the nation's premier authorities on municipal law at the time. His decision in *Clark v. City of Des Moines* (1865) first set forth the rule of judicial construction that would later be named for him.

Judge Dillon wrote: "It is a general and undisputed proposition of law that a municipal corporation possesses and can exercise the following powers and no others: First, those granted in express words; second, those necessarily or fairly implied in or incident to the powers expressly granted; third, those essential to the declared objects and purposes of the corporation, not simply convenient, but indispensable. Any fair, reasonable doubt concerning the existence of the power is resolved by the courts against the corporation, and the power is denied." Most state and federal courts quickly adopted the rule.

While this ruling generally silenced those who championed far-reaching local autonomy, a national movement to provide for stronger municipal authorities began in Missouri in 1875. The home rule movement convinced several western states to adopt state constitutional amendments expanding the scope of municipal independence. The home rule doctrine allows a municipality to exercise any function so long as it is not prohibited by state legislation or in conflict with the state constitution or state statute. In Minnesota, limited home rule authority has been granted to "charter cities"; the legislature granted Ramsey County limited home rule authorities through charter legislation in early 1987. Although home rule may appear promising to those desirous of expanding local autonomy, the state legislature still controls the scope of power held by local governments. At their discretion, a state legislature may repeal the home rule doctrine or employ a laundry list of exemptions and exceptions that prohibit counties from exercising specific powers. The courts have ruled that if there is any uncertainty of who has power or jurisdiction, state government is granted those authorities.

The decades of the 1980s and 1990s:

A growing schism between state and local governments

The second half of the twentieth century could be described as both the "best of times and worst of times" for county government in Minnesota. In response to federal programs such as Medicare and Medicaid, the Johnson Great Society initiatives and even the Nixon Federal Revenue Sharing program, the responsibility to provide services and the role of county government grew at a phenomenal pace. Mandates from both the federal and state governments became

both the boon and curse of local government officials. On the one hand, the role of county government expanded with new responsibilities for providing welfare services, environmental services, health services, etc. Mandates, as defined by county officials grew to a point where nearly 80 to 85 percent of county services are mandated by the state or federal governments. New local aid programs were created that partially paid for these new mandates, and property tax relief programs were created to cushion the blow to property tax payers, particularly homeowners.

On the other hand, new mandates were created that generally were un- or under funded, leaving local governments scrambling to meet their mandate responsibilities while at the same time being asked to control the growth of local spending and property taxes. The management of solid waste is a good example of this challenge. In the late 1980s, counties were given the legislative responsibility to manage solid waste in their communities. Local dumps and burn pits were outlawed. The mandate created a hierarchy of waste disposal options, and counties were charged to develop county plans that would best meet this hierarchy. Generally, the state goal for county plans was to reduce the total amount of solid waste being disposed of in landfills and encourage alternative strategies for waste disposal such as recycling, waste-to-energy burn facilities, composting, etc. In addition, the state extended the state sales tax on garbage disposal to provide a revenue stream to subsidize these local government activities.

While the theory and start up of the solid waste management mandate went well, there has been an ongoing erosion of state support for local waste management programs. The mandate for solid waste management has continued and grown, but the state financial support has dwindled as state sales tax monies collected on solid waste has been diverted to other state priorities, and counties have had to subsidize solid waste services with locally raised taxes and fees. This lack of ongoing partnership between state and counties has worn thin the willingness of local officials to support state programming.

In addition to the funded/unfunded mandate debate, local governments have had an ongoing battle regarding how much legislative control should be imposed on local government revenue-raising capacity. For the most part, Minnesota counties have an extremely limited capacity for raising revenue. Counties are allowed to levy property taxes, charge fees and in addition receive intergovernmental revenues from the state and federal governments. The decades of the '80s and '90s saw a new wrinkle in local government

revenue-raising capacity: the imposition of state imposed levy limits on cities and counties.

Levy limits as imposed by the state on local governments are used to control the ability of local governments to increase property tax revenues and more recently to control spending growth. While the nuance and detail of levy limits is quite arcane, the fundamental underpinnings of levy limits come from a legislative belief that the public blames legislators for property tax increases and a common legislative belief that local government officials are wild spenders and cannot be trusted to contain local spending.

The two levy limit proposals introduced in the 2005 Legislative session were a proposal for an absolute freeze on property taxes and a proposal to impose what was titled "Turbo-Charged Truth in Taxation." While neither of these proposals ultimately was adopted, the fact that the proposals were even considered created deep concern among county officials. In addition to these proposals, a third legislative remedy for local revenue and expenditure control continues to be discussed at the Capitol. The most recent addition to the levy limit debate is a proposal that is called the Taxpayers Bill of Rights (TABOR). The Minnesota TABOR is modeled after similar legislation in Colorado and would constitutionally establish levy limits and spending controls on local governments.

Is county government, as we know it today, sustainable?

A renewed county officials' focus on the future of county government can be traced to the fall of 2002. The state was faced with a projected shortfall in the state budget. Candidates had promised no new taxes and dire consequences were at hand for county government. In January of 2003, AMC organized an association-wide meeting to discuss what was titled the Minnesota County Restructure Act. Its goal was to spin the county/state relationship 180 degrees and establish a county/state relationship in which counties would be granted home rule authority. After long debate, the association membership chose not to propose radical change but rather work with the administration and the legislature to seek solutions to the state fiscal crisis.

The budget, as passed by the legislature, had dramatic effects on counties as there were cuts in state aid, new state mandates and cost shifts from the state to counties.

In the spring of 2003, the AMC Board of Directors came to the conclusion that as county officials, it was vital that they look at county government and re-examine its traditional roles. The Board recog-

nized that county government will change tomorrow, the next day, and the day after that. With the massive reductions in state aid, the cost shifts, levy limits and the demands for new services, Minnesota counties had no choice but to become more agile and more creative in the delivery of county services. The Board took the first steps in developing the Minnesota Counties Futures Project when they approved the hiring of the Himle/Horner public affairs firm. They were hired to begin the process of collecting and analyzing data about the public's perception of county government and were asked to assist AMC in developing strategic long- and short-range options for counties. These options could include service delivery changes, structural changes and public relations and public information strategies. Recognizing the importance of getting out front and managing and directing these changes was the vision for this project.

The Minnesota Counties Futures Project

The first requirement of the project was to solicit broad participation from AMC members and county officials during all phases of the project, from data collection and the development of strategic options to carrying out project initiatives. Key objectives of the project included the following:

- Obtain candid, unfettered insight from audiences that are essential to the future success of county government.
- Identify current strengths/weaknesses and future opportunities/challenges for county government.
- Develop recommendations/strategic options to assist AMC in effectively positioning county government for future years.

Also influencing the County Futures Project in its drive to rethink county government and how counties provide services was work done by noted author and consultant Carl Neu. Neu identified what he called five mega-trends redefining the future of county government. In his work and writings, he noted that at a national level, county and local governments are experiencing challenges that are painful, frustrating and unsettling, and that many county officials hope, that in better financial times, everything will return to "normal."

In an article written for AMC, Neu wrote that "the evidence strongly suggests that local governments, and especially county governments, are entering a period of profound transformation. Potentially and dramatically redefining or reframing their role, oper-

ations, and relationships with other governmental entities and the publics they serve.”

Neu’s five emerging mega-trends that indicate change is coming are:

1. *The state-local government partnership is waning.*
2. *There is a substantial erosion of local governments’ fiscal health, which, if continued, threatens their long-term fiscal sustainability/viability.*
3. *People now perceive local government entities to be redundant, fragmented, competitive and inefficient.*
4. *Citizens are not engaged with/by their local governments; in fact, they are becoming anti-government.*
5. *There is an erosion of grassroots government.*

Minnesota county officials agreed with Neu that the relationship between Minnesota counties and the state were at the very least strained, but evidence suggested that the concept of a state/local partnership either no longer existed or existed only when it was convenient to the state and the legislature. In fact, legislative debate often displayed an open hostility to local governments in both speech and action.

As Minnesota state budget challenges grew, state budget solutions included the shifting of state costs, the reduction of state aid and revenue sharing and the imposition of additional new mandates on counties and other local governments. These decisions in turn forced counties to raise taxes, cut programs and reduce both short-term and long-term reserves. While many legislators would argue that these state budget decisions were made as a result of an economic downturn, the decisions were not made jointly as state/local partners but appeared to more clearly fit into a state/local government indentured servant relationship.

In addition to the budget phenomenon, Minnesota county officials recognized that current service-delivery models are not sustainable fiscally, politically or logically and that citizens do not have confidence that that tax dollars are being spent responsibly or reasonably. Minnesota county officials agreed with Neu as he wrote that the “public — taxpayers — do not feel connected to local government, do not understand local government, sense reform or change is needed, but lack faith in local governments’ will and ability to work together to shape a reform/change agenda.”

Finally, like Neu, Minnesota county officials recognized that with the societal changes that were happening, the public was becoming

less engaged with local government and was tuning out the needs of their communities unless there was a direct connection to their lives and properties.

At the December 2003 AMC Annual Conference, Himle/Horner reported the results of their research about Minnesota counties and the public perception regarding the services that counties provide.

The following summarizes their findings:

1. Counties are generally well respected for their work.
2. Core county functions are not well understood by the public.
3. The political environment for tax increases is poor and the public is looking for reform in government.
4. The public is supportive of change, but they doubt that counties will be change agents.
5. Counties can lead a reform agenda if that agenda
 - Prioritizes county functions;
 - Reduces state mandates and increases incentives for innovation and creativity;
 - Encourages cooperation and joint service delivery between counties and with other levels of government;
 - Develops a strong public information campaign with residents within counties; and
 - Changes service delivery systems before asking for new revenue from taxpayers.

Key to the decision to move forward on the Futures Project was a resounding “no” when county officials were asked if the current model of service delivery was sustainable. A resounding “no” when asked if the model was sustainable if there was just more money, and a resounding “no” when asked if they as county officials were willing to let others (the state legislature) control and shape the reform agenda (Figure 1).

AMC members recognized the importance of getting out front to manage and direct change, which became the vision of the Minnesota Counties Futures Project. Renowned author Graham Greene said it very eloquently: “There is always one moment in childhood when the door opens and lets the future in.” County officials recognized that that moment had arrived.

As stated earlier, Minnesota counties play two important roles: a local government role and a role as the administrative arm of the state. Understanding the context of the two roles of county government has been a key consideration of the Minnesota Counties

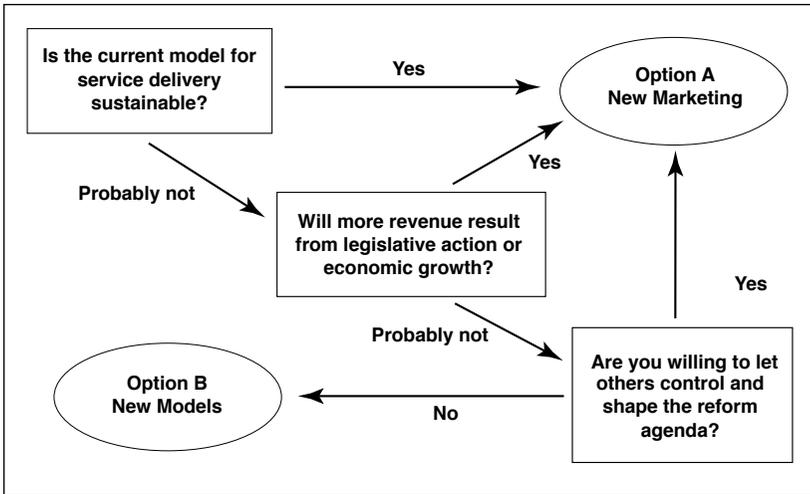


Figure 1: Critical questions to determine direction.

Futures Project. The project has identified three realities of county government in Minnesota. These realities include:

1. Each Minnesota county is facing uniquely different challenges based on its geography, demographics, economics and culture. Whether a citizen lives in Jackson, Grant, Lincoln or Washington County, the demand for services and expenditures are great while resources and revenues are limited.
2. Counties cannot face future challenges in a vacuum. Solutions will require internal county teamwork, cooperation between counties, new partnerships between counties and the public and new collaborations between counties and other levels of government.
3. Government service delivery systems must keep their focus on the delivery of services at the consumer/client level and be less concerned about structures and process. When a citizen needs a service, the citizen is not concerned about the color of uniform, the emblem on the side of the truck or title of an individual providing the service. In the end, the public wants the service delivered as effectively and as efficiently as possible.

The goal of the project as determined by the committee is to “Discover and Promote Opportunities for Dynamic Change.” The committee recognized that there were certain core services that must be delivered at the local level and:

- a. That change is inevitable;
- b. That change happens more from leadership than from management;
- c. That the current service delivery models are not sustainable in long term; and
- d. That county boundaries on maps are artificial and service delivery systems should not be constrained by these artificial boundaries.

The ultimate outcome of the Futures task force will be for counties to use decision processes and service delivery systems to assure:

- High quality public services that are effective, efficient and sustainable, and
- Continuous systems improvements that create wholesale sustainable change

A Change Work Plan and Agenda

To achieve these ends, the Futures Project is embarking down three paths. The first of those paths is to create a culture among county officials in which county officials seek out opportunities to retool the traditional models of service delivery. The Futures committee has discussed the dynamics and forces of change and how change happens. Within those discussions, we recognized that successful change occurs when key elements for change are present and clearly identified. Often these elements are unpredictable and non-controlled, but I would contend that these elements can be nurtured, and through training and education, the opportunities for change can be enhanced.

The first of the identified elements that embrace change agendas is “the time for change is at hand,” or what Anoka County Commissioner Margaret Langfeld called the “strategic moment.” During the Futures discussions, committee members often used an exercise where they identified services that in their judgment were ripe for reform and placed them on a grid that identified both what was doable/not doable and what counties were willing to/not willing to do (Figure 2). Once these identified services were placed on the grid, committee members had a better sense of whether the item was ripe for reform or whether the timing was wrong, and they needed to search for other change opportunities. It was clear during our discussions that there had to be agreement regarding the need for reform and the willingness to take on a reform agenda.

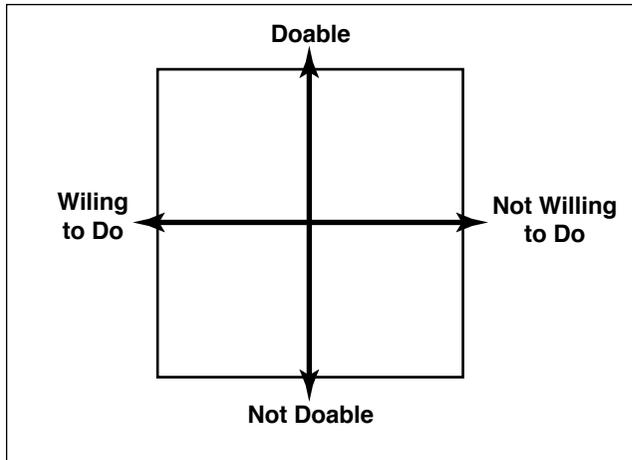


Figure 2: Discovering and promoting opportunities for dynamic change.

A second identified element was the need to have the right person, change agent, champion or leader leading the change agenda. This individual needed the energy to motivate others and move the reform effort forward. The challenge for counties and rural communities is that these individuals, those with the skills necessary to guide a change agenda, are often already over-burdened with both leadership and management responsibilities. This leaves them with little time to provide the guidance needed to successfully carry out substantive paradigm shifts.

A third element for encouraging a successful reform agenda is that a common vision, mission and goal for making change must be embraced by the decision-makers. In many ways, this is the most challenging of the elements needed for change as visions are often colored by personal agendas and political realities. Personal and political agendas carved on rhetorical stone tablets are extremely difficult to overcome.

One need only review a few historical change moments to identify how these three elements, in a simplistic way, were vital to the success or failure of a change agenda. The establishment of this nation is an example of the coalescing of a shared vision for a new nation, committed leadership coming together and the right time for action. A classic example of how the strategic moment was not part of a successful change agenda was the Clinton health care reform agenda. While there was broad agreement that reform was needed and there was committed leadership, the nation did not have a shared vision for where health care reform should go.

A more local example of a successful change agenda is the Red Rock Rural Water System, which is located in the south-central part of Minnesota. Watonwan County Commissioner John Baerg speaks eloquently about how he and other key individuals identified the challenge of needing a new high-quality water source for farmers and rural homeowners. Most of the wells being used by residents produced both low volumes and poor water quality, so the time was right to act. The shared vision to develop a rural water system was accepted by the community and a dedicated group of champions ultimately were successful in establishing the Red Rock system.

A second local example of a successful change agenda is found in the Scott County Association for Leadership and Efficiency (SCALE) project. In this project Scott County leaders recognized the value of working together to meet public service demands for one of the fastest growing counties in Minnesota. A commitment to delivering high quality services both efficiently and effectively became the vision of the group and through the dedicated leadership of a broad range of public officials and staff, Scott County governments are being consistently recognized for their innovation and citizen satisfaction.

A concrete goal for the Futures Project is to enhance the relationships between counties and state agencies to improve service delivery systems and outcomes. A convoluted concept at the least but as written earlier, the state/county relationship is at worst non-existent and at best perilously tenuous. Under the direction of the committee, an Association of Minnesota Counties/Department of Human Services Work Group has been created to review current human service delivery models with the assumption that the group discussions are open and unconstrained by past practices or preconceived agendas. Discussion participants, who include the nine top DHS Administrators and a combination of county commissioners, county social service directors and other county officials, are committed to setting aside their parochial interests and working to craft service delivery systems that first meet the needs of citizens and then meet the needs of the agencies and departments delivering those services.

The Futures committee expects to create additional work groups to deal with the relationship between counties and the state judicial system, between counties and the Minnesota Department of Health regarding food, beverage and lodging functions, and other service delivery systems and state/county relationships.

The third goal of the Futures Committee is to nurture partnerships with and among local governments and local government associations. Too often local governments have become, out of both

necessity and as a result of state and federal rules and regulations, bureaucratic silos in which they do not coordinate the delivery of local services. Many citizens perceive elected officials and government employees as a collection of Keystone Kops characters that are inept or potentially a bunch of crooks. Public sector officials should not be surprised by this perception when we overhear coffee shop “how many highway workers does it take” jokes, the Defense Department \$100 hammer stories and political candidates and office holders railing on all the bad stuff that governments and government workers do. Even those of us who work in the public sector often go to great lengths expounding on public sector deficiencies.

The Futures project goal is to create environments where elected officials and public employees seek out opportunities for partnerships between neighboring counties and between the various local governments within communities. It is through these partnerships that citizens can share both the reality and perception of effective and efficient service delivery systems.

At the same time, the statewide Associations are working to create a relationship where association leadership and staff coordinate activities and efforts. In particular, the Executive Directors of the League of Minnesota Cities (LMC), Minnesota School Boards Association (MSBA), the Minnesota Association of Township Officers (MATO) and AMC are meeting regularly to discuss issues of mutual concern and to coordinate responses to legislative initiatives that affect local governments. In addition, the LMC, MSBA and AMC Executive Committees are meeting to explore additional opportunities for collaboration and cooperation between the Associations.

The Road Less Traveled

Efforts to create a change culture, enhance the state/county relationship, and to nurture partnerships have not been a simple stroll through the good government public policy park. It is my belief that public officials accept and resist change in ways similar to the general public. Their reactions to a change scenario mirror the reaction of the private sector. “What did I do wrong?” and “Am I going to lose my job?” are typically the first two questions asked when change is announced. Classic concerns about turf, power, control, competence, etc., are common challenges for collaborations and partnerships. Who is directly benefited and who pays are often barriers to effective partnerships for elected officials.

I believe that county government in Minnesota must change and that change in county government is necessary. The state and federal government appear to have lost their ability to govern as

they become more and more mired in the partisan political syrup of large P politics. County government and local governments can no longer expect great new ideas, programs or revenues from the feds or from the state. The current local government models will not be able to sustain themselves in the future as times, conditions, and citizen expectations change. County and local governments have an opportunity to meet the challenges of citizen wants and needs as we build new communities and prosper through partnerships and collaborations. These concepts are particularly true in the rural areas of our state. Rural Minnesota is taking body blow after body blow as communities age and more and more young people are exported to urbanizing areas.

“Civic laboratories of democracy” was how Thomas Jefferson envisioned local government. He saw a future where local governments would innovate, test, succeed and fail. I suspect that he would hold in contempt those who would refuse to discuss innovation or reject the need to explore the new frontiers of county government. I imagine that he might have paraphrased Gene Roddenberry of Star Trek fame and asked county officials “to boldly go where no man has gone before.”

Minnesota local government officials have the ability to redefine Minnesota’s service delivery systems and to reconstruct how services are delivered. Minnesota county officials should heed the advice of Robert Frost as he wrote, “I took the one less traveled by, and that has made all the difference.” Carl Neu used the term “refounders” in describing the need for county officials to grab control of their own destinies. County officials can sit back and let life happen but I have confidence that the leadership skills are there and that the passion and desire to meet the challenges of the day exist to shape a new tomorrow for Minnesota County government.

Trends and Tsunamis: Rural Higher Education

Linda Baer

Introduction

The trends and tsunamis of public higher education are clearly evident in rural higher education. This article provides a very brief overview of the history of higher education in rural areas, the linkages with rural and regional communities and some future opportunities within the ever changing environment in rural communities.

“Higher education stands as one of the true success stories in our nations’ history. It is a story of transformation — for students, main streets, communities, and states — from the Industrial Age to the Space Age and now to the Information Age. For nearly a century and a half, the American people have looked to state colleges and universities — their colleges and universities — with hope and expectation.”¹

These institutions have a foundational base that is essentially a social contract. It is a contract derived from the fundamental belief that public education benefits individuals and society, and therefore individuals and the public should support it. This foundational base has survived over many decades of change and transformation. Yet the waves of change on the horizon are shaking this social contract. Education beyond high school is becoming a universal expectation. The United States is slipping in its global leadership role in percentage of young adults receiving a post-secondary education. The economic structure is shifting from production to services and information. States are finding imbalances within the taxing and spending systems. College affordability is being challenged.²

In this context of transformational change, we find that it is a demanding, exciting and risky time for colleges and universities. Part of the change flows from the demands of political, business and industry leaders who are concerned about the ability to be

competitive in this new economy. Others are concerned about a growing trend of under-prepared young people who are not ready to attend post secondary institutions, nor are they ready to take the roles of workers and citizens. In addition, many are concerned about the impact of globalization on local, regional and state economies.³

Higher education in rural America is transforming within this context of changing structures, demands and expectations. In the early 1990s, nearly 100 one-room schoolhouses existed in the state of Montana. "Many look the same as they did at the turn of the century, but inside are computers, professional teachers, and a broad array of modern instructional resources. Some of their original buildings still stand, but regional colleges and research universities are a far cry from their beginnings as to their mission and priorities." However, Newman points out that in the urbanization process, the higher education community has lost a focus on the distinctive needs of rural learners and their communities.⁴

Land Grant Universities

The role of higher education has been integrally connected with the viability and success of rural communities. Land Grant institutions created in the mid-nineteenth century served the communities with current agricultural and mechanical arts, two prominent economic development issues of the day. In 1890, the U.S. Congress created a number of Historically Black Land-Grant Colleges in many of the southern states. This was a systemic response to educational needs of Black students. The Land Grant institutions contributed to the transformation of agriculture and the Industrial Revolution.⁵

The Industrial Age brought a dramatic change to the rural areas. Farm operations were mechanized, agriculture was "industrialized" and communities were transformed to include manufacturing and processing operations. Education again served the needs of the communities with advanced agricultural techniques, training and education for the more industrialized needs. Today the Land Grant mission includes some of the finest research in the world, meeting the needs of the Information Age.

Comprehensive Universities and Colleges

Thomas Jefferson believed that education should be practical as well as liberal and should serve the public good as well as individual needs. Regional universities were established in the latter half of the 19th century and have become the regional public baccalaureate-and-beyond universities. Many of these universities began as teachers'

colleges and grew to comprehensive institutions serving the region with graduates in careers and professions that meet the growing focus on the needs of the communities, including nursing, business, engineering, and liberal arts.

Campuses in the rural areas continue to be the access point for many individuals, drawing large numbers of first-generation college attendees. They provide access for non-traditional students in more familiar and comfortable surroundings. In addition, there has been rapid increase in the non-credit side of the curriculum targeted at the incumbent workforce of many businesses and industries in rural areas. Proximity of the campuses often aids in the transition to work for first-time employees or reentering workers.⁶

Junior colleges and vocational institutes established by many communities in the first half of the 20th century have evolved, merged, and expanded to today's comprehensive community colleges. Joliet Junior College, the first two-year public institution, was created in Illinois, in part, to prepare rural high school graduates for admission to the university.

The development of community colleges was an important transformation of higher education because this institutional type provided a major access point for educational opportunities to local communities with innovative strategies for learning. The community colleges mission includes open access and equity, comprehensive services, meeting community needs and commitment to teaching and lifelong learning.

Local community colleges and technical training facilities expanded the reach of higher education to rural areas. The colleges and technical institutes focused on occupations and specific training in the trades and industry. Education in these areas contributed to the professions and trades required to meet the service, business and industry and leadership needs of growing communities.

Tribal colleges were founded to explore traditional tribal cultures as well as to address Western learning models. They are an innovative model of education sponsored by tribes across the United States and are specifically aligned with the needs of Native American communities.⁷ Tribal colleges support the dual mission of perpetuating traditional Native American cultures and providing a general post-secondary education for reservation residents. While some tribal colleges offer selected four-year degrees, they primarily offer the associate level as the highest degree. Both the Historically Black Colleges and the Tribal Colleges often record improved retention, transfer and graduation rates.⁸

Current Trends

Today the Land Grant institutions, regional universities and community and technical colleges play a vital role in rural communities as society has moved into the Information Age. The Land Grant colleges and universities have resulted in education that is far more engaged in the process of community development and support than had been the case prior to their establishment. A report by the National Association of State Universities and Land Grant Colleges (NASULGC) concludes that these universities have had a profound effect on the transformation of communities. This includes major impact on American agriculture, economic development, homeland security, biotechnology and information technology. About two-thirds of the land grant universities have a business park and some form of incubator to help start or support new business development.⁹

Currently, the United States has more than 3,000 colleges and universities, and about one out of three are located outside of metropolitan areas.¹⁰ These comprehensive universities have developed a wide range of majors, professional degrees, social and cultural enrichment and research which is often tied to the regional community needs. Today, Black, Hispanic and other minority students make up 30 percent of community college enrollments nationally.¹¹

Overall, the public colleges serve about 10 million students per year nationally — 5 million in credit courses and another 5 million in non-credit courses, activities, and programs. This represents a rapid increase in the non-credit side of the curriculum targeted at the incumbent workforce, businesses and industries in rural areas.

Rural colleges are facing what may be their biggest challenges. The new landscape includes:

- Increasing reliance on global connections, even in isolated environments
- Rising credential and skill needs of employers and academic aspirations of students
- Low skill and literacy levels among applicants
- Increasing diversity in terms of race, ethnicity, and academic achievement
- Job hopping and multitasking
- Declining recruitment success in rural areas
- A proliferation of missions that threatens to fragment colleges' [and universities'] resources
- New competition from corporate for-profit and web-based

- programs and
- The Internet and growing demands for information technology skills and certification.¹²

Linkages to the Community

Rural community college involvement in economic development expanded during the 1980s as the demands of business and industry changed. Small and mid-sized enterprises required new technical and organizational skills associated with growing technologies. Colleges began to develop strong alliances with industries. An example of this is the Consortium for Manufacturing Competitiveness in the rural South.¹³

Rural communities have been well served by rural colleges and universities, particularly where there has been a major emphasis on industry niche or cluster development. Many institutions are assisting communities in identifying workforce gaps in the regional economy and helping citizens obtain advanced skills and training. As the information-based economy continued to grow, community colleges again transitioned in the 1990s. The computer and Internet brought dramatic changes to teaching and learning. Business and industry began to move from traditional credit-based training and education and to certifications. Non-credit and customized training opportunities increased, developing under less restrictive conditions than the credit driven policies, which allow more responsiveness to community training needs.

In *Capitalizing on the Potential of Minnesota's Rural Campuses*, Manning, Campbell and Triplett developed a matrix that describes the range of college community connections. In the first pattern, campuses are at the basic level of being responsive to communities. The campus acts in a more independent manner, responding to community questions. Boundaries of the college are maintained as clearly separate from the community. The second pattern is the engaged community, where the college is more involved in the ongoing activities of the community. Here there is a bridging between the boundaries of the campus and community. The third pattern is the most connected level of campus-community linkages, where the campus is fully integrated into the community. In this case, the community and campus work in a coordinated fashion where boundaries are actually blurred.

Table 1: Range of college–community connections¹⁴

Responsive to Community	Engaged with Community	Integrated into Community
College as responder to community requests	College as ongoing participant in economic development organizations	Community system automatically draws on college resources
College as independent actor/cooperator	College as partner	College as collaborator – working for mutual benefit
College asks community leaders how it can be of help	Community leaders rely on services college makes regularly available (e.g. two-way interpreter role)	Community projects integrate resources from college and other community resources
College boundaries are maintained; exceptions are made to support partnership	College develops ongoing venues to bridge boundaries and to partner with community	College and community boundaries are blurred so two systems act as one
Community brings ideas to campus	Community economic development activities begin with college leaders participating	College assumes new roles to address unmet community economic needs (loan funds, temp services agency, retail)

This fully integrated model is characterized by collaboration that maximizes the synergy between higher education and communities. “Success cannot be achieved without both institutions moving toward the same goals.” The principles presented in this matrix assume that the campus will take the initial implementation steps in this new collaborative model. There are seven action-oriented steps to becoming a more engaged campus/community collaboration. The college takes the initiative as:

1. Convener for economic visioning.
2. Leader of a coordinated learning and career partnership
3. Provider and translator of data
4. Integrator of core strengths/industry cluster model
5. Host for business location
6. Leader in research/technology commercialization
7. Campus and individual as entrepreneur¹⁵

The report concludes that colleges should be expected to play a more forceful role in the economic development of the regions they serve and be rewarded for doing so. Collaboration is critical to the future of rural areas in order to meet statewide and regional workforce needs, business and community development and expanded trade opportunities.¹⁶

Rural Community College Initiative

The Rural Community College Initiative, RCCI, was established by the Ford Foundation in 1994 to explore how community colleges can be catalysts for change in economically distressed regions. Many RCCI regions have lost their historic job base of mining, farming, timber or manufacturing, while others may not have had a viable economic base. These college communities share certain characteristics including low educational levels, one-industry economies, and/or high dependence on government programs. Many communities were divided by conflicts among races, economic groups, and natives and newcomers.¹⁷

The Rural Community College Initiative established an important model that connects rural colleges with communities for the benefit of economic and community development. Rural campuses identify economic development roles in their communities including the following:

- Mobilizing regional leadership for economic development.
- Being the center of a regional workforce development system attuned to employers' changing needs.
- Promoting technology transfer and competitiveness
- Promoting entrepreneurship and small business development.
- Developing programs that target poor people while creating jobs.
- Encouraging a strong education ethic.¹⁸

"RCCI provides a process designed to build broad-based collaboration between college and community and bring about long-term change. To RCCI, economic development means creating jobs, raising incomes, generating wealth, and reinvesting that wealth in the region's businesses, institutions, and people."¹⁹

In summary, the two approaches found in the Rural Community College Initiative and the Manning study challenge rural campuses to become more engaged in the future of the communities. The campuses hold many resources, including leadership, facilities for business incubators, resources, access to training for incumbent

workers, provider and translator of data, integrator of industry niche development capacities, and provider of entrepreneurial opportunities. The fully integrated campus/ community model can maximize the future potential for rural communities.

Future Challenges and Opportunities

Out-Migration: Overall, rural areas are characterized today as diversifying, less agriculturally oriented, diminishing in population, aging, less educated, less technology-oriented, and less well off economically than their metro-based counterpart sector. An ongoing challenge in rural America is the out-migration of the population. Massive numbers of people continue to move from rural areas to larger cities and metropolitan areas. Since 1985, over one-half million people per year have left rural America to move to the cities. This continues a pattern of over 100 years of out-migration. Young people make up the majority of those leaving rural areas. Those “left behind” are aging as a population.²⁰

Rural areas must continue to deal with creating vision and opportunities for young people so they find reasons to stay. Communities must integrate the very best educational opportunities between the school districts and the colleges and universities so people are educated to the highest standards. Higher education’s alignment with regional business and industry development is a key to the future of rural areas. Sustaining existing enterprises is crucial for future regional economic vitality.

Unstable Funding: In April 2002, the National Conference of State Legislatures reported that forty-three states had a deficit. By 2003, it was forty-four, and the deficits have only grown since. As the push for new revenue streams developed over the last decade, it became increasingly clear that there was going to be less state revenue. The American Association of State Colleges and Universities made the argument that “the total funding ‘pie’ for states and for institutions has gotten bigger, but higher education’s piece of the state funding pie has not concomitantly grown, nor has the state’s share of the higher education funding pie. With the state appropriation representing a smaller share of the total budget, colleges and universities have been aggressively expanding other sources of revenue, including tuition, fund-raising, sponsored research and corporate contracting.”²¹

A report by the State Higher Education Executive Officers, focused on the relationship between states and their colleges, found

that state funding for higher education is at its lowest levels in 25 years. According to the report, state funding per student in 2004 was \$5,721. In constant dollars, that represents a decline from \$6,094 in 1981. The result has been that in just the last four years, college tuition has risen at triple the rate of general consumer spending. In 1991, tuition made up 26 percent of state educational revenues. It now makes up 36 percent, according to the State Higher Education Executive Officers.²²

This budget instability particularly affects the rural areas, which serve smaller populations. States continue to deal with the commitment to access to more remote areas while balancing the growing metropolitan areas. Campuses will need to plan for less reliance on funding from state tax dollars; seeking funds from private sources and federal dollars. Of strong concern is the increasing reliance on increased tuition costs from students. More creative partnerships between K-12, business, industry, and community development may provide enhanced resources through the development of shared operations.

A New Covenant

As the world approached the millennium, organizations took the opportunity to review and assess where higher education should be going in the next century. In 2000, a Kellogg Commission report proposed a Higher Education Millennial Partnership Act to renew the “covenant” between land grant universities and the public. The focus was to be on equal access “without regard to race, ethnicity, age, occupation, or economic background,” enhanced civic engagement by “preparing students to lead and participate in a democratic society,” and “conscious efforts to bring the resources and expertise at our institutions to bear on community, state, national, and international problems in a coherent way.”²³ This is, in essence, a call for a more engaged relationship between the universities and the communities.

The American Association of State Colleges and Universities commissioned a study of the core commitments of the public universities and how they might be renewed to meet current and future challenges. In *Renewing the Promise*, the commission determined some key recommendations that are important for the renewal of colleges and universities within the communities. These included:

- States and their universities must develop and sustain a long-term vision for higher education.

- Campuses and systems must work collaboratively to renew and update basic commitments of access in order to reach those most at risk of being left behind.
- Campuses and systems must work collaboratively to renew and update public partnerships in support of communities, regions, and states that require encouragement by institutional, system and state policy.
- Campuses and systems must be guided by a vision and policy environment that emphasizes flexibility, adaptability, and accountability.
- Campuses and systems must forge a new relationship with government, one that promotes public entrepreneurship and accountability for outcomes.²⁴

The W.K. Kellogg Foundation studied the role of community colleges and reported the findings in *New Expectations: Charting the Second Century of Community Colleges*. The report concludes that: "Community colleges are well positioned to educate much of the nation's workforce. As the nation's economy demands more highly skilled workers in order to compete in world markets, community colleges must continue to excel in workforce development." In fact, "the community college, with its emphasis on serving all segments of society, puts higher education within reach of virtually all who seek it. In the 21st century, the community colleges success will continue to depend on its ability to respond to a changing environment."²⁵

As the three major associations reviewed the major future needs and expectations of higher education, they each concluded that it was time for a call for a new covenant or social contract between higher education and the major constituents of these institutions. This renewed covenant is essential for the future of the citizens and the nation.

New Ways of Engaging

New approaches to the future of education can make a significant difference in the long-range development and sustainability of communities. The following model compares the past approaches of higher education engagement with the future approaches given the new economic realities in rural America.

Table 2 *Access to education: Approaches for the future*
*New economic realities in rural America demand an expanded definition of access*²⁶

Typical past and current approaches	Approaches for the future
“Open door” admission	Aggressive outreach to groups that need education, including young high school dropouts, working and unemployed adults.
Primary goal is enrollment	Multiple institutional goals emphasize positive outcomes for students, including retention, graduation, and placement in further education and jobs. College helps each student achieve his or her individual goals.
Emphasis on credentials—awarding of degrees and certificates	Emphasis on competencies — learning what one needs now, while keeping the door open for future learning, as well as graduation and certification.
Emphasis on teaching	Emphasis on learning — student-centered individualized approach
College relationship with students begins at age 18	College works with middle and high schools to prepare more students for post-secondary education and to raise the college-going rate in the region
Enroll those who can travel to campus	Extend classes to people in remote areas and at work sites
College operates in isolation from other educational institutions	Strong links with secondary schools and four-year colleges/ universities

Source: MDC, *Expanding Economic and Educational Opportunity in Distressed Rural Areas: A Conceptual Framework for the RCCI*, Chapel Hill, NC. May 1998.

This model changes the context of how campuses and communities have operated. It calls for far more engagement between communities and institutions, more alignment with K-12 institutions and better collaboration with business, industry and community development.

Catalyst for Change

Rural community colleges and universities can be effective catalysts for change in distressed rural areas. However, serving as a catalyst will continue to be a challenge given the need to balance the access mission, the comprehensive offerings of core programs and degrees and the commitment to economic and community development. Many rural colleges and universities have provided a foundation for improved prosperity in the region. It will take strong leadership for rural colleges and universities to be responsive to the economy's needs without losing their commitment to independent learning and inquiry, to integrate credit with increased non-credit programs and academic and vocational courses, and to select goals they can meet most effectively and relinquish those that can better be met by others.²⁷

This approach will require clear commitment supported by policies in higher education that focus on results, quality processes, and on lifelong learning. The future focus should encourage a culture of innovation, improvement, and quality assurance for colleges and universities that enable all students regardless of age, ethnic background, or environment to succeed.²⁸ It will require policies that support collaboration and innovation with communities in more seamless approaches to learning and training. This focus will be the promise for rural communities.

The public higher education institutions face a future filled with promises and challenges. Action becomes a question of will — the will to question conventional wisdom, the will to take risks and the will to renew. “Continued success will depend on the willingness of leaders on and off the campus to think and act boldly, combining the best of what has been with the promise of what can be.”²⁹ Peter Smith adds: “As we look ahead to the year 2020, those of us in higher education must get over the conceit that traditional institutions, organizational structures, and services will continue to control the future development of higher education. The synergy generated by the emerging forces is not controlled by institutions — it is embedded in the surrounding communities, outside the institutional walls.”³⁰

Conclusion

Higher education is facing tsunami-like changes. Whether the factors of change are demographic, global, economic, technological, or financial, all are coming together in what some have called the perfect storm. Higher education in general and rural education in

particular must heed the call of John F. Kennedy to “hold fast to the best of the past and move fast to the best of the future.”³¹

This will require exploring new directions, new pathways and new ways of doing business. The next generation organization of higher education must be more like a catamaran than the large ship of state. It will need to be far more adaptive, flexible and responsive to the changing environment. A key to the future will be leaders with competencies and skills who share leadership with community leaders. It will include the leadership ability to seek and sustain partnerships.³²

And what will the next ten years be like in higher education?

“America is on a learning curve to its future, propelled not by design but by swirling forces unleashed by our knowledge and our growth, by our successes as a beacon of freedom, and also by our shortcomings. If we are to lead the world into a ‘Knowledge Century,’ we must commit to giving all qualified Americans the opportunity to succeed through education, including higher education that gives them the ticket to opportunity. This will require a revolution in our thinking. Higher education will no longer be the province of a few; it must become the common territory for nearly all of us.”³³

Learners will move between institutions in a seamless manner. Students will have a “mobile transcript” which will serve as a learning passport that travels with the student and reflects the learning accomplished through outcome measures. Services and programs will be customized to individual learning needs. Hybrid courses, those that are on site as well as online, will maximize the enhancement of learning by strategically using technology-enhanced curriculum. Work and learning will be fused where ongoing, “just-in-time” learning will be readily available. Campuses and communities will commit to a higher level of integration, blurring the boundaries, and become learning centers that energize individuals and main streets in the knowledge age.

Expanded engagement and partnerships between colleges/ universities and the communities can serve as leverage against some of the unpredictability in this sea of change. “The public’s institutions of higher education have been beacons of hope, offering the promise of opportunity, knowledge and a better life for generations. As a new generation approaches these institutions, the work of renewal will be one of this generation’s most difficult tasks and one of its greatest rewards.”³⁴

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Rural Minnesota Health Care

Raymond G. Christensen

This brief overview article will document general information that indicates the status of rural health care in Minnesota. It will conclude with a brief look at a few short-term (three to five years) challenges. The short-term comments reflect the need to embrace and mature the current efforts on quality, workforce, delivery of services, application of technology, and financing, and do not entertain major changes in delivery and financing systems.

The state of Minnesota has a population of approximately 4.9 million, with 41 percent of the population in rural areas, and 59 percent in the seven-county metropolitan area, Duluth, Rochester, and St. Cloud (Table 1). Rural Minnesota is projected to grow by 30 percent in 2030 while urban Minnesota is projected to grow by 29 percent.

Rural Minnesota is partially bordered and internally graced by great and small lakes, rivers, and streams. Residents and visitors of the state enjoy geography varying from plains, rolling hills and valleys, to the rugged forests of the northeastern coastline. As noted above, slightly less than one-half of the state population resides in the rural areas of the state. Population densities vary from frontier to urban, reflecting the geography and commerce of the state. State geography, weather, commerce, and demographics are all factors as the health care and education systems are continually molded to best serve rural populations.

Rural ethnicity is becoming more diverse and reflects the changing demographics of the State of Minnesota. The 2000 U.S. Census revealed that the population of Minnesota is predominantly white, 89.4 percent. Black or African-Americans, American Indians, Alaska natives, and Asians make up 7.5 percent of Minnesota's population (Table 2). Rural Minnesota is experiencing a large influx of Latinos. New Americans are becoming more diverse in their placement in the state and taking on employment in rural Minnesota.

Table 1: Interim Projections: Ranking of Census 2000 and Projected 2030 State Population and Change: 2000 to 2030

Minnesota Counties	2000 Census	2005	2010	2015	2020	2025	2030	Percent Change
Rural Counties*	1,981,673	2,143,420	2,235,588	2,328,369	2,417,134	2,503,779	2,578,229	30%
Urban Counties**	2,868,570	3,053,850	3,216,970	3,362,624	3,488,708	3,596,336	3,690,847	29%
Total	4,850,243	5,197,180	5,452,558	5,693,893	5,909,842	6,100,115	6,269,076	29%

Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

Internet Release Date: April 21, 2005.

* Adjusted

** Not Adjusted

Table 2: Profile of Race Demographic Characteristics for Minnesota: 2000

Race	Population	Percent
White	4,400,282	89.4%
Black or African American	171,731	3.5%
American Indian & Alaska Native	54,967	1.1%
Asian	141,968	2.9%
Native Hawaiian & Other Pacific Islander	1,979	
Some other race	65,810	1.3%
Two or more races	82,742	1.7%
Total Population	4,919,479	100%

Source: U.S. Census Bureau, Census 2000.

The Minnesota Department of Administration reports that 12 percent of Minnesota residents were age 65 and older in 2002 (15% of rural Minnesota residents and 10% of urban Minnesota residents) (*Minnesota Department of Administration Information Center, <http://server.admin.state.mn.us/resource.html?Id=31242004>*). By 2020, both rural and urban Minnesotans are projected to age, with the largest increases in population occurring in the 65-84 age groups. The number of Minnesota residents age 65 and older will increase to 14 percent in urban and 19 percent in rural Minnesota, indicating an increased need for long-term care services (*Reshaping Long-Term Care in Minnesota, State of Minnesota Long-Term Care Task Force, January 2001*).

Population drains continue from west, west central, northwest, and southwest Minnesota, with a decreasing tax base to support an economically deprived and aging population in those areas. The health insurance coverage in rural Minnesota impacts the funding for health care services. In 2004, the Minnesota Health Economics Program at the Minnesota Department of Health found that 6.7 percent of Minnesotans were uninsured, compared to 5.4 percent in 2001. Both the Twin Cities and Greater Minnesota had statistically significant increases from 2001 to 2004, and the rate in Greater Minnesota was 6.8 percent (*Minnesota Department of Health, Health Economics Program, Fact Sheet 2005, Health Insurance Coverage in Minnesota, 2001 vs. 2004*). According to the most recent data available, the counties with the highest rates of uninsured in 2001 were Mahanomen (13.5%), Clearwater (12.2%), Cass (12.5%), Becker (11.3%), and Crow Wing (10.9%) (*Minnesota Department of Health, Health Economics Program, Issue Brief 2002-2005, 2001 Health Insurance*

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The supply and distribution of health care providers in rural Minnesota significantly impacts access to care. A number of studies have been conducted and corresponding initiatives have been implemented to address rural workforce shortages. The greatest number of active, licensed physicians that responded to the 2004 Minnesota Department of Health, Office of Rural Health and Primary Care Physician Licensure survey were in Family Medicine (Table 3), both in rural and urban Minnesota. Of the 2,169 licensed Family Medicine physicians that responded in 2004, 57.5 percent were practicing in urban Minnesota and 42.5 percent were practicing in rural Minnesota. A higher proportion of the 1,375 Internal Medicine physicians were practicing in urban Minnesota while 17.4 percent were practicing in rural Minnesota; however Internal Medicine was the second most frequent specialty in rural Minnesota.

Table 3: 2004 Active Minnesota Licensed Urban and Rural Physicians

Specialty	Urban	Percent of Total	Rural	Percent of Total	Total
Family Medicine	1,247	57.5%	922	42.5%	2,169
General Practice	14	61.0%	9	39.0%	23
General Surgery	219	69.3%	97	30.7%	316
Internal Medicine	1,136	82.6%	239	17.4%	1,375
Medicine/Pediatrics	40	83.3%	8	16.7%	48
OB/GYN	316	81.4%	72	18.5%	388
Pediatrics	662	90.0%	74	10.0%	736
Psychiatry	314	77.7%	90	22.3%	404
Other	3,478	89.0%	425	11.0%	3,903
Total	7,426	79.3%	1,936	20.7%	9,362

Source: 2004 Minnesota Physician Workforce Licensure Database, Minnesota Department of Health, Office of Rural Health and Primary Care.

In Minnesota, 41 percent of family medicine physicians provide obstetrical services, according to the 2004 Minnesota Physician Licensure Database, Minnesota Department of Health, Office of Rural Health and Primary Care. Rural family medicine physicians provide obstetrics at a higher rate (48%) compared to 36 percent of

their urban counterparts. Approximately 75 percent of the urban physicians reported practicing in a clinic setting, while 85 percent of rural physicians reported practicing in a clinic. Of the physicians practicing in a clinic setting, 47 percent are family practice physicians and 42.4 percent are practicing in a rural clinic. Urban physicians reported a hospital practice setting at twice the rate of rural physicians. The majority of physician assistants in rural and urban Minnesota reported practicing in a clinic setting; however, 84 percent of rural physician assistants were in clinics compared to 67 percent of urban physician assistants.

The *Health Workforce Database, Minnesota Department of Health, Office of Rural Health and Primary Care* data used to document the 2002-2004 active, licensed providers is collected by a voluntary survey in conjunction with state licensing boards. Survey response is voluntary and the rate varies from 70 percent for nurses to 90 percent for physicians. Minnesota has a total of 36,005 licensed registered nurses, 744 nurse practitioners, 697 physician assistants, 1,791 dentists, and 4,726 pharmacists. The majority of these providers practice in urban Minnesota (Table 4).

Table 4: 2004 Active Minnesota Licensed Urban and Rural Health Care Providers

Provider	Urban	Percent of Total	Rural	Percent of Total	Total
Registered Nurse	25,564	71.0%	10,441	29.0%	36,005
Nurse Practitioner	558	75.0%	186	25.0%	744
Physician Assistant	456	65.4%	241	34.6%	697
Dentist	1203	67.0%	588	33.0%	1,791
Pharmacist	3081	65.2%	1645	34.8%	4,726

Source: 2004 Minnesota Health Workforce Licensure Database, Minnesota Department of Health, Office of Rural Health and Primary Care.

Of the registered nurses that responded to the Minnesota Registered Nurse Licensure survey, the most frequent practice setting reported for rural and urban nurses was a hospital. A higher proportion of registered nurses work in nursing homes, home health, and public health in rural Minnesota, whereas urban registered nurses reported hospital, rehab, insurance, and clinic settings more frequently. For rural dentists, solo practice accounted for 57 percent of the reported practice settings compared to urban at 41 percent. Urban dentists reported group practice and other settings including

education, hospital, institution, and HMO more frequently compared to rural dentists.

The individual Minnesota licensing board was contacted to obtain the number of emergency medical technicians in Minnesota. Significantly more emergency medical providers were located in rural Minnesota; however compared to urban areas, a higher proportion of rural providers were first responders (Table 5).

Table 5: Emergency Medical Providers in Minnesota

Emergency Medical Providers	Rural	Percent of Total	Urban	Percent of Total	Total
First Responders	10,310	61.2%	6,531	38.8%	16,841
EMT Basic	6,586	62%	4,036	38%	10,622
EMT Intermediate	197	76.7%	60	23.3%	257
Paramedic	1,198	56.7%	916	43.3%	2,114
Total	18,291	61.3%	11,543	38.7%	29,834

Source: Minnesota Emergency Medical Services Regulatory Board, 2005. Currently registered and certified. Self-reported and may report home address, business address or ambulance service address. Reported by county; numbers for the cities of Duluth, Rochester, and St. Cloud are not available.

Minnesota colleges and universities graduate a significant number of health care providers. Nursing, however, is the only provider type that offers health care provider education programs in rural and urban Minnesota (Table 6).

Table 6: 2005 Minnesota Health Care Provider Graduates

Provider Type	Number of 2004 or 2005 Graduates
Medical Doctors	265
Pharmacists	99
Dentists	82
Registered Nurses*	2,302
Licensed Practical Nurses	1,429
Other Nursing**	220

Source: Mayo Medical School and University of Minnesota Medical School, School of Dentistry and College of Pharmacy; CUPPS, 2003 and 2004 data from IPEDS Peer Analysis System.

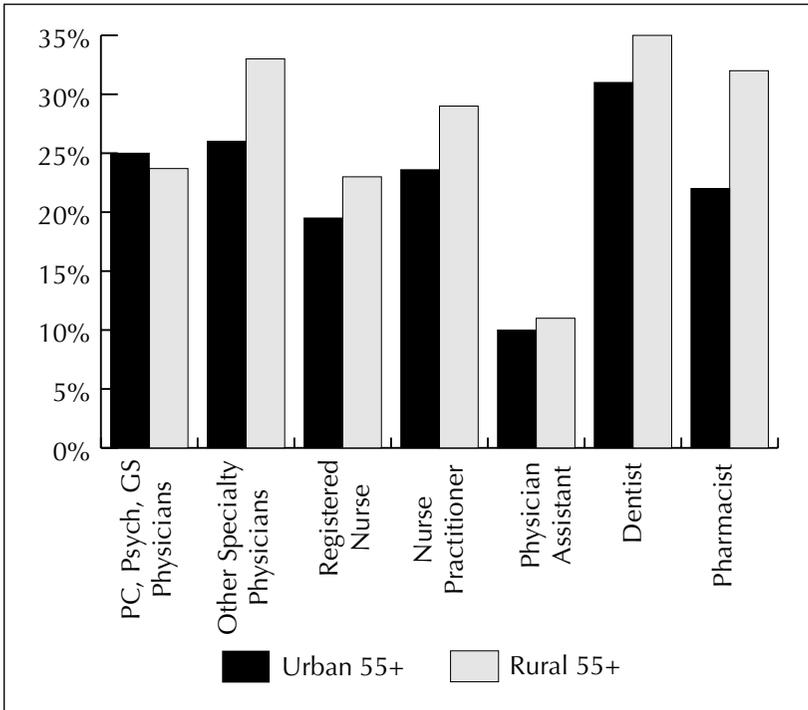
* Only RN

** Includes other Post RN programs including Nurse Practitioner and Nurse Anesthetist

The percentage of selected health care providers in Minnesota age 55 years of age and over is shown in Figure 1. Except for primary care, psychiatry, and general surgery physicians, a higher portion of rural providers were age 55 or older. Over 30 percent of other specialty physicians, dentists, and pharmacists were age 55 and over in 2004. This indicates that one-third of the rural workforce will retire in the next 10 years.

The Minnesota Department of Health, Office of Rural Health and Primary Care utilizes the federal government's criteria to determine shortages of health care professionals based on population-to-practitioner ratios, geographic distances, and income. The Minnesota Department of Health also works with the Shortage Designation Branch, Bureau of Health Professions, to establish Health Professional Shortage Area (HPSA) designations, which are a prerequisite to apply for National Health Service Corps recruitment assistance. In 2005, 56 rural counties and five urban counties in Minnesota are partially or fully designated as Primary Care Health Professional Shortage Areas (HPSAs), indicating less than one primary care physician to 3,500 people and lack of access to physician care in contiguous areas (within 30 minutes travel time; to view a map, visit www.health.state.mn.us/divs/chs/PCHPSAFeb05.jpg). Most of the full-county HPSAs are located in northern and western Minnesota. Nearly the entire state of Minnesota, outside metropolitan Minnesota, is designated as a

Figure 1: 2004 Active health care providers age 55 and over.



Source: 2004 Minnesota Healthcare Workforce Licensure Databases, Minnesota Department of Health, Office of Rural Health & Primary Care.

Mental Health Professional Shortage Area, determined by less than one psychiatrist to a population of 30,000.

As shown in Table 7, rural Minnesota hospitals, those in non-Metropolitan Statistical Areas, have fewer beds, a shorter average length of stay, and fewer patients.

Table 7: Rural Minnesota Hospital Profile

Hospital Factor	Rural	Minnesota
Licensed beds	3,819	16,390
Average length of stay	3.6	4.3
Average daily census	1,090	6,952
Emergency room visits	412,107	1,496,810

Source: Minnesota Department of Health, Health Care Cost Information System and Minnesota Hospital Association, Minnesota Hospital Profiles, 2003.

Rural Minnesota, as defined by the 80 counties outside of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington, and the cities of Duluth, Rochester, and St. Cloud, includes 105 hospitals, or 78 percent of the 135 acute care hospitals in the state. The majority of these hospitals are non-profit organizations. Over 70 percent are licensed for less than 50 beds (Table 8).

Table 8: *Rural Minnesota Hospital Ownership*

Type of Ownership	Number	Percent of Total
Not-for-profit	57	54.3%
County	4	3.8%
City/County	3	2.9%
Religious	7	6.7%
Hospital District	15	14.3%
Total	105	100%

Source: Minnesota Department of Health, Hospital Annual Report 2003 and American Hospital Association

Rural Minnesota hospitals were reported to have a higher percentage (46.2%) of patient charges from Medicare compared to all hospitals in Minnesota (35.1%) and a lower percentage of managed care (14.5%) (Table 9).

Table 9: *Payer Mix of Minnesota Hospitals*

Payer Mix	Rural	Minnesota
Medicare	46.2%	35.1%
Medicaid	7.9%	7.8%
Managed Care	14.5%	38.0%
Other Patient Charges	31.4%	19.1%

Source: Minnesota Department of Health, Health Care Cost Information System and Minnesota Hospital Association, Minnesota Hospital Profiles, 2004

Since 1987, 33 hospitals have closed in Minnesota, 76 percent of which were rurally located (*Minnesota Hospital Association, Key Facts About Minnesota Hospitals, www.mnhospitals.org, October, 2005*). The Medicare Rural Hospital Flexibility Program, established in the Balanced Budget Act of 1997, authorized designation of Critical Access Hospitals (CAHs). This federal program was designed to decrease the number of hospital closures in rural areas in order to

maintain access to primary and emergency health care services. Minnesota currently has 72 CAHs (*Minnesota Department of Health, Office of Rural Health and Primary Care, Profile of Rural Hospitals in Minnesota, April 2003*). Critical Access Hospital designation allows for cost-based Medicare reimbursement and out-patient Medicaid reimbursement in Minnesota, which helps the financial stability of low-volume hospitals. Most CAHs do not reduce services upon conversion, according to the Flex Monitoring Team, the research and evaluation program for the Medicare Rural Hospital Flexibility Program. (*Flex Monitoring Team Briefing Paper No. 5, Scope of Services Offered by Critical Access Hospitals: Results of the 2004 National CAH Survey, March 2005, http://flexmonitoring.org/documents/BriefingPaper5_ScopeofServices.pdf*).

Compared to urban areas, rural Minnesota has a higher proportion of health care facilities, including community health centers, nursing homes, and ambulance services (Table 10).

Table 10: Health Care Facilities in Minnesota

Facilities in Minnesota	Number of Rural Facilities	Percent of Total	Number of Urban Facilities	Percent of Total	Total Number of Facilities
Community Health Centers	11	78.5%	3	21.4%	14
Nursing Homes	269	65.8%	140	34.2%	409
Rural Health Clinics	69	100%	0	0%	69
Ambulance Services	266	85.8%	44 (Metro)	14.2%	310

Source: Minnesota Department of Health, 2005 and *A Quiet Crisis: Minnesota's Rural Ambulance Services at Risk*, Minnesota Department of Health, December 2002.

Eighty-five percent of the Emergency Medical Services (EMS) are located outside the urban areas of Minnesota. Seventy-seven percent of rural ambulance personnel are volunteer, compared to 23 percent in urban Minnesota, according to the *Minnesota Ambulance Service Surveys 2002, Office of Rural Health and Primary Care, Minnesota Department of Health and the Emergency Services Regulatory Board*.

The challenges presented by the geography of rural Minnesota magnify the difficulty of maintaining emergency medical systems,

mental health systems, and access to primary and specialty care. Brainerd is essentially the geographic center of a state that must deal with long distances, blizzards, sparse populations, and near-mountainous terrain. Thus emergency care and stabilization — and ability for patients to access medical care in their private automobile — may be compromised.

Rural Minnesota, especially northeast Minnesota and the lake areas, are very popular tourist sites. These regions have great difficulty in establishing, financing, and maintaining an EMS base. There is often lack of adequate numbers of EMS volunteers to maintain these systems, let alone enhance their skills and services to advanced care and paramedic levels. Inadequate funding makes it difficult to support emergency access, health care access, and satellite clinics. Maintenance of an adequate cadre of health care providers to share call and work load is vital to avoid burnout. The financial stress of maintaining and establishing clinics, satellite clinics, electronic health records, computer systems, telemedicine systems, and other necessities of business threatens many of the independent and small clinics in rural Minnesota.

Medical students are demonstrating a decreasing interest in family medicine, as seen in the decline from 2,905 to 2,292 students from 1997 to 2005 (*American Academy of Family Physicians, "Family Medicine Positions Offered and Filled in March, 1993-2005,"* www.aafp.org, October 2005). An additional issue is medical school costs. For example, the University of Minnesota is the most expensive public medical school, at approximately \$25,000 per year for tuition and fees (https://www.meded.umn.edu/financial/student_budget.cfm). These expenses, when added to the cost of living, leave students attending the University of Minnesota with debt loads averaging \$100,000–\$150,000. This makes it financially difficult for a physician to practice family medicine, psychiatry, pediatrics, and internal medicine, and may result in the choice of a more lucrative subspecialty field. The broad nature of family medicine training necessary for rural practice makes graduates from family medicine residencies attractive to non-rural practices and increases the competition for rural physician recruitment.

Medical leadership (educational and professional) recognizes the need to train more medical students. It has been suggested that medical school enrollment be increased annually by 15 percent over the next decade (AMednews.com, "Physician Shortage? Push is on for more Medical Students," American Medical Association, March 14, 2005). Concern has arisen that most specialties are too heavily trained in hospitals. The hospital of the future may become more

of a virtual hospital with increasing care at home and other clinical settings assisted by technology and health care teams. The increased emphasis on improved quality and performance in chronic disease care should improve quality of life and maintenance of independent living. Whether money will follow to support change, as has been recommended by citizen and professional groups, remains to be seen.

The Institute of Medicine (IOM) released a report in November 2004, *Quality Through Collaboration: The Future of Rural Health*. It was written by a committee of a dozen individuals representing rural health care providers, health systems, researchers, and medical schools. Included was Dr. Clint MacKinney, a family practitioner and ER physician from St. Cloud, Minnesota; Dr. Ira Moscovice from the University of Minnesota; Linda Watson, MLS, formerly from the University of Virginia and now Director of the Health Sciences Libraries at the University of Minnesota; and Dr. Mary Wakefield from the University of North Dakota School of Medicine, who chaired the committee. Janet Corrigan of IOM served as lead staff. The committee's charge was to:

- Assess the quality of health care in rural areas.
- Develop a conceptual framework for a core set of rural services.
- Recommend priority objectives and methods of achieving them.
- Consider implications for federal programs and policies.

The new IOM report suggests a five-pronged strategy to address quality challenges in rural communities:

1. Adopt an integrated, prioritized approach to addressing both personal and population needs at the community level.
2. Establish a stronger quality improvement support structure to build rural quality improvement (QI) knowledge and improvement tools.
3. Enhance the human resource capacity of the rural health system through education and deployment.
4. Monitor rural health systems and help to secure the necessary capital for system redesign.
5. Invest in building an information system infrastructure in rural communities that will enable quality information collection and analysis.

For medical providers practicing in rural Minnesota, many of the initiatives to monitor and report health care quality have not been relevant or practical. Rural health care providers practice under different circumstances and utilize different health care delivery models than their urban counterparts. Although the differences are partially due to geography, they are also the result of both medical resource limitations and the low-volume environment.

To be meaningful, quality of care in small, rural hospitals and clinics must be evaluated by measures specifically designed for their environment. Rural is not small urban, and quality assessment must be based on what is appropriate in the rural setting. While many of the quality improvement issues of health care, such as medication errors and infection control, are universal, rural health care is diverse and methods must be tailored to fit the circumstances of each rural community.

The reports of the Institute of Medicine, *Health Professions Education: A Bridge to Quality*, and *Quality Through Collaboration: The Future of Rural Health*, and the Annals of Family Medicine's *The Future of Family Medicine* make recommendations for increased rural training of professionals and an evolving continuity of care delivery model. The continuity of care delivery model requires physician leadership in continuity teams of care. This will ensure continuity of care for patients who will retain access to personal care by the continuity team, if not their personal physician, with a group of health professionals (physicians, doctors of pharmacy (PharmDs), midlevels, and other health professionals) that work together on a daily basis.

Exercising fiscal constraint and responsibility, rural health care must continue to address individual, family, community, and cultural needs. These social needs have in the past resulted in excellent health care for Minnesotans and have kept the state at the top of national rankings. We must not lose this social agenda.

Mental and behavioral health continue as major and growing concerns throughout most of rural Minnesota. Improvement must be made in diagnosis, assessment, and treatment of these problems with current mental health workers and with greater utilization of family medicine.

Increasing numbers of specialty and subspecialty physicians and emerging technology are providing and enhancing rural care, generally in more populous areas. This has resulted in an evolving sub-regional and rural regional referral center infrastructure that improves local community access.

Better utilization of physician assistants, nurse practitioners,

psychologists, and the future contributions of PharmDs, will further enhance access. Rural communities recognize the need to maximally utilize health care dollars so they are not wasted or duplicated and provide the maximum benefit possible. Rural family medicine should assume an integral leadership role in ensuring the local health care system continues to meet the needs of the community. Accomplishment requires working with peers, administration, patients, and community leaders to assure collaboration in decision making regarding financial, technological, and care delivery issues.

New challenges face rural medical delivery. The pay for performance trend may not be good for rural Minnesota. The basic rural medical system must provide access to care with proper patient triage, evaluation, and referral. Without new money or opt-out provisions, pay for performance runs the risk of underpaying rural delivery systems struggling to provide basic access and risks possible further contraction or loss of these facilities. Other risks of pay for performance include increasing paper burden, increased testing, and diminished reliance on the judgment of seasoned practitioners. It also may encourage a blameless and underreporting environment.

Rural hospitals will continue to undergo profound change. Many smaller hospitals are being rebuilt, hopefully with a vision to the virtual hospital of the future. Rural hospital and clinic capital expenditures accounted for 22 percent (\$758 million) of the total spent in Minnesota from 1993 to 2004. The most common expenditures were projects for facility or property acquisitions, construction, or renovation (Minnesota Department of Health, Health Economics Program, "Health Care Capital Expenditures in Minnesota, 1993 to 2004, August 2005").

Rural medical care currently faces workforce pressures. The supply of family and specialty physicians, as well as dentists, physician assistants, and allied health providers, has remained stagnant in the face of a rapidly expanding aging and chronically ill population. Changes occurring in practice styles with better life balance are necessary, but may negatively impact access. For rural Minnesota, the initiatives to recruit local students to health careers and provide basic and clinical education throughout the state, coupled with distance technology, are imperative to maintain or improve current levels of health care access and leadership. Rural Minnesota should consider stepping forward, philosophically and financially, supporting local professional and other workforce students, with assurances on their part of payback through appropriate service or penalties.

As we look to the future, let us not forget that all health care is local. Basic needs of patients, the need for careful listening, personal interaction, recognition of culture and communities, do not change. Health information and other technologies have great potential, e.g., distance education, telecommunication, telemedicine, and even robotic surgery, but we must guard against the threat of impersonalization. Involving patients and communities will ensure greater success as we transition into the future.

As we expand and exert greater efforts to entice rural youth into the healthcare workforce, we will benefit with the assistance, utilization, and support of federal, state, and locally funded workforce programs such as the Area Health Education Centers, National Health Service Corps, primary and secondary education, and higher learning institutions.

Change in health care is inevitable. The challenge for Minnesota rural health care is to anticipate and lead change, ensuring relevancy for the needs of rural communities.

(The author acknowledges contributions from Terry Hill, Sally Buck and Vicki Trauba of the Rural Health Resource Center and Lurinda Isaacson from the University of Minnesota Medical School.)

About the Authors



Born in Brooklyn, N.Y., **NORM COLEMAN** spent 17 years in the office of Minnesota's Attorney General before being elected mayor of St. Paul in 1993. In 1996, Coleman made the controversial switch to the Republican Party, before being re-elected mayor the next year.

In 1998 Coleman ran for governor and narrowly lost to Independence Party candidate Jesse Ventura. In 2002, after his term as mayor ended, he entered the race for the U.S. Senate against incumbent Senator Paul Wellstone. After Senator Wellstone's tragic death eleven days before the election, Coleman won a close election against Wellstone's replacement, former Vice President Walter Mondale.

Coleman serves on the Senate Agriculture Committee, where in the fall of 2003 he introduced the Rural Renaissance Act. He also founded and is now co-chairman of the bipartisan Senate Biofuels Caucus. He serves as Chairman of the Senate Governmental Affairs Committee's Permanent Subcommittee on Investigations, as a member of the Senate Foreign Relations Committee, and also chairs the Senate Foreign Relations Subcommittee on the Western Hemisphere. Coleman is also a member of the Senate Small Business and Entrepreneurship Committee.

Coleman attended Hofstra University on Long Island and received his law degree from the University of Iowa Law School. He and his wife, Laurie, have two children, Jacob and Sarah.



TIM PENNY is senior fellow and co-director of the Humphrey Institute Policy Forum. He represented southeastern Minnesota's First Congressional District from 1982 to 1994 and was a member of the U.S. House Agriculture Committee and chair of the Foreign Agriculture and Hunger subcommittee. Penny also served on the Veterans Affairs Committee and the Select Committee on Hunger. While in Congress, Penny founded and co-chaired

the Democratic Budget Group and drafted numerous deficit-cutting initiatives.

Since 1995, Penny has worked as a senior counselor for the Minnesota-based public relations firm Himle Horner. From 1998 to 1999 Penny served as a member of Governor Jesse Ventura's transition team, and in 2002 he was the Independence Party candidate for governor. During 2001, Penny was actively involved as a member of President Bush's bipartisan commission on Social Security.

Penny serves on several boards: as policy chair for the budget watchdog group the Concord Coalition, chair of the Southern Minnesota Leadership Circle, vice chair of ACIDI/VOCA (an international development agency), and as a trustee of the Wells Fargo Advantage Funds and the Good Samaritan Society. He is co-author of three books, *Common Cents* (1995), *Payment Due* (1996) and *The 15 Biggest Lies in Politics* (1998), and is a regular public speaker, radio commentator and editorial writer on the topics of state and federal budgeting, agricultural policy, trade issues, rural development, and leadership.

Penny received his bachelor's degree from Winona State University and served 12 years in the Navy Reserves, rising to the rank of lieutenant commander. He and his wife, Barb, reside in Waseca, Minn., and are the parents of four grown children.

THOMAS F. STINSON is an associate professor in the University of Minnesota's Department of Applied Economics. Since 1987 he has also served as Minnesota's state economist, supervising preparation of the state's revenue forecast and providing analyses of state economic issues.

Stinson conducted research on rural



development topics as an economist for the U.S. Department of Agriculture before assuming his current position. A native of Washington State, he received a bachelor's degree in political science from Washington State University, and a Ph.D. in economics from the University of Minnesota. Stinson is a past president of the Minnesota Economic Association.

TOM GILLASPY has served as the Minnesota State Demographer since 1979. During that time, he has been involved with a wide-ranging set of issue, applying an understanding of demographic trends in such areas as the state's economy, health care for an aging population, education, higher education, welfare reform, rural population change, labor shortages, immigration, housing, government spending, and the aging state workforce.



Before moving to Minnesota, Tom held the position of demographer at the Andrus Gerontology Center, University of Southern California. He received his Ph.D. in economics from Pennsylvania State University, specializing in economic demography. He also holds a master's degree in agricultural economics. Born and raised in Texas, he received his undergraduate degree in economics from the University of Texas at Austin.



C. FORD RUNGE is Distinguished McKnight University Professor of Applied Economics and Law at the University of Minnesota, where he also holds appointments in the Hubert H. Humphrey Institute of Public Affairs and the Department of Forest Resources.

A native of Wisconsin, he received his Ph.D. in agricultural economics at the University of Wisconsin, his master's degree in economics as a Rhodes Scholar at Oxford University, and his bachelor's degree at North Carolina-Chapel Hill. He has served on the staff of the House Committee on Agriculture and as a Science and Diplomacy Fellow of the American Association for the Advancement of Science, working in U.S. AID on food aid and trade. He spent 1988 as a special assistant to the U.S. Ambassador to the General Agreement on Trade and Tariffs (GATT) in Geneva, Switzerland.

His publications include five books, and a wide range of articles concentrating on trade, agriculture and natural resources policy. He is married and lives in Stillwater with his wife Susan, daughter Elizabeth, and son Carl. He owns and operates a small farm in Wisconsin.



JOE NATHAN directs the Center for School Change at the University of Minnesota's Humphrey Institute of Public Affairs. For the past 15 years, Nathan has worked with rural schools and communities, helping them refine their public schools and establish and improve charter schools. More than 30 weekly newspapers, including 15 in greater Minnesota, carry his weekly column. Parent, student and professional groups have honored Nathan for

his work as a public school teacher and administrator; Nathan has also worked for the National Governors' Association. *USA Today*, *The Wall Street Journal* and other major papers have published his guest essays. Nathan received his bachelor's degree from Carleton College and his master's and Ph.D. from the University of Minnesota.

CHRIS GILBERT is professor of political science at Gustavus Adolphus College in St. Peter, Minn., where he has taught since 1991. His research interests focus on religion and politics, third parties in the United States, and Minnesota politics. His published works include *The Prophetic Pulpit: Clergy, Churches, and Communities in American Politics*, a two-year study of political activity among the clergy and congregations of the Evangelical Lutheran



Church in America and the Episcopal Church. He is also the recipient of two all-campus outstanding teaching awards from Gustavus students and faculty. Since 1992 he has served as a frequent national and state political analyst for Minnesota Public Radio.



JIM MULDER is the Executive Director of the Association of Minnesota Counties. He graduated from the University of Minnesota with a Bachelor of Science degree and has earned a master's degree from the Hubert H Humphrey School of Public Affairs. Jim has been the Executive Director for AMC for sixteen years. Prior to holding this position, Jim served as the County Coordinator

for McLeod County and worked for the Minnesota House of Representatives as a researcher and as a committee administrator for the House Tax Committee.

The Association of Minnesota Counties is a voluntary association of all of Minnesota's eighty-seven counties. AMC provides a broad range of services that include lobbying the Minnesota Legislature, working with state departments and agencies, and providing training and information to Minnesota county officials.

LINDA BAER earned her bachelor's degree in sociology from Washington State University, her master's degree in sociology from Colorado State University and her Ph.D. from South Dakota State University. Before joining the Office of the Chancellor staff, Linda was the Senior Vice President for Academic and Student Affairs and also Interim President at Bemidji State University.



Linda provides leadership throughout the State of Minnesota and presents nationally in academic innovations, e-learning and services, bridging higher education with the workplace, assessment and accountability, educational transformation, and the development of alliances and partnerships. Her recent publications and presentations include work on the challenge of change, myths and realities of technology-enhanced education, and the blueprint for building strong partnerships. Linda co-authored a book entitled, *Partnering in the Learning Marketplace*. She recently published an article on "Higher Education and Technology: Bridging the Generation Gap."



RAYMOND G. CHRISTENSEN, M.D., is a board-certified family physician and currently holds the position of Assistant Dean for Rural Health at the University of Minnesota, Duluth, School of Medicine. After a farm childhood and a degree in agriculture, he attended the University of Wisconsin Medical School in Madison, Wis., and subsequently interned at St. Mary's Hospital in Duluth. He co-founded the Gateway Family Health Clinic in Moose

Lake, Minn., in 1972, where he continues to practice. He has assisted in the development of the trauma system in northeastern Minnesota and northwestern Wisconsin and in the subsequent formation of the Arrowhead EMS Association, the Northern Lakes Health Care Consortium, Minnesota Center for Rural Health, Minnesota Office for Rural Health and Primary Care, and the Rural Health Resource Center. A strong believer in access to quality health care and universal coverage, he has long advocated on behalf of rural health on the Minnesota Health Care Commission and regional Coordinating Boards and for the establishment of a free rural access clinic in Cromwell, Minn.

On a statewide and national level, he has served on many committees and held offices in many organizations, including president of the Minnesota Academy of Family Physicians, the Minnesota Medical Association, and Stratis Health, and as a director, treasurer, and speaker of the house of the American Health Quality Association. As a member of the Minnesota Rural Health Association and a long-time member of the National Rural Health Association, he continues his advocacy locally, regionally, statewide and nationally.

About the Center for Rural Policy and Development

In 1997 a group of rural Minnesota advocates came together around a bold idea: to create a rural policy think tank that would provide policymakers, rural advocates and concerned citizens with an objective, unbiased and politically “unspun” examination of contemporary rural issues.

Funded through a public–private partnership, the Center for Rural Policy and Development today is an independent non-profit research organization dedicated to the objective study of the economic, social and cultural forces that are impacting rural Minnesotans and the communities they reside in. Over the years our audience has grown to include state legislators, city and county officials, community leaders, business executives, college presidents, school superintendents and everyday citizens concerned about rural Minnesota and its future.

Hopefully, you will agree that *RMJ* is one of those resources worth having. To that end, we invite you to visit our web site at www.ruralmn.org to learn more about the Center for Rural Policy and Development, our resources and programs and ways you can support *RMJ*.

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