A Citizens League
Research Report

Compete Globally, Thrive Locally

**What the public sector should do
to help the greater Twin Cities region prosper**

September 1996

The Citizens League promotes the public interest in Minnesota by involving citizens in identifying and framing critical public policy choices, forging recommendations and advocating their adoption.

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Executive Summary

What's the Problem?

The greater Twin Cities region appears to be in good economic shape today. The signs of good health—strong incomes, low unemployment, brisk economic growth—are undeniable. However, globalization, technological advancement, and increased competition will mean that doing "pretty well"—even improving—won't necessarily be good enough to secure the future we think Twin Citians want.

The region's historic affluence and its well-earned reputation as one of the best places in the country have, we think, led to complacency. **We are concerned that certain trends point to trouble ahead.** In particular:

- **We are concerned that international trade is growing more slowly in the Twin Cities than in other major metropolitan regions** and that the region is perceived as "insular" rather than "international." With the fastest-growing markets overseas, and with competitive advantage increasingly a matter of "thinking globally," the region cannot allow itself to turn its sights inward.

- **We are concerned that the region's well-educated, diligent work force is losing its competitive edge.** South Korea, Chile, India and other nations now have well-educated workers. These and other countries are investing in *advanced* education and training in fields that have been important to the Twin Cities. The Twin Cities region, with its higher costs, must offer a state-of-the-art work force with *specialized* productivity advantages in key activities and industries.

- **We are concerned that the region is behind the curve in embracing information and communications technologies.** Headquarters operations and several of the Twin Cities region's key industries—printing and publishing, financial services and software, for example—are increasingly relying on advanced information technologies. Minnesota's public sector does not yet have a strategy for addressing such issues as access and pricing, nor is there a process for leveraging public and private investment to attain a critical mass of physical infrastructure and the skills to use it. (As this project was completed, Governor Carlson announced the creation of the Minnesota Office of Technology and his appointment of John Gunyou to provide leadership to the state's telecommunications efforts.)

- **We are concerned that the "quality of life" in the Twin Cities region has become more like that of other big cities—and that is a big loss.** In the past, the region has overcome many other disadvantages by offering the "good life:" pleasant neighborhoods, lots of cultural amenities, an air of civility, a can-do approach to problem-solving, creative public and private leadership, and a commitment to the mutual obligations among families and communities.

  Over and over again we heard our resource people say that the "good life" in the greater Twin Cities region doesn't seem as good as it once was. We share that perception. Some of Minnesota's state and local policies have contributed to the problem. Land use and transportation policies have encouraged suburban sprawl, for example, and contributed to worsening concentration of poverty and social problems in the core cities, a pattern that has been shown to undermine the long-term economic health of metropolitan areas.

Two other trends concern us even though they aren't unique to the greater Twin Cities region. First, Americans' record of saving and investment is dismal and, while there are no state-by-state data, we suspect the record of Minnesotans is, at best, only slightly better. Minnesota's public policies encourage the tendency to under-invest in the intellectual, financial and physical foundations of prosperity. The effects—such as when more than half the state's parents fail to save anything at all for their children's college education—damage the future well-being of the metropolitan region.

Second, we are concerned that the Twin Cities region, like the rest of the U.S., has not come to grips with the expansion of the service sector. (Services include transportation and utilities, trade, finance/insurance/real estate, business and personal services, entertainment and government.) Some of the increase in service activity is probably inevitable in a global knowledge economy and, we think, desirable. Some of that growth, however, might be neither inevitable nor desirable. The fact that it is difficult to sort out which is which should not deter citizens and policymakers from trying. The size of the service sector is becoming too large to overlook the implications for the overall productivity of the economy.

Third, we are concerned that the "safety nets" to protect workers from job disruption don't fit the new economy. Most of today's safety nets were designed to meet 1940s-era assumptions about "lifetime employment." While the evidence isn't conclusive, there is some indication that competitive economies are associated with a slightly higher degree of economic insecurity and inequality. That tradeoff—slightly less security for better long-term income growth—seems to have held in the Twin Cities. We think the region has a special interest in preserving that remarkable record by encouraging citizens to embrace rather than resist change.

Many of the region's most troubling trends are related to the core responsibilities of state and local governments. We are especially concerned about:

- The widespread perception among employers that **graduates of Minnesota's elementary and secondary schools are not adequately prepared for work.** Basic skills are too often missing, and conventional credentials such as diplomas and even college degrees don't indicate the presence of relevant competencies.

- **The declining standing of the University of Minnesota.** If the institution is allowed to slip, or even to stand still while others make impressive gains, the Twin Cities region will feel ripple effects for years to come. Our capacity to attract the best and brightest minds from throughout the U.S., to innovate in the industries we have, and to grow new industries will diminish.

- **The region's shortsightedness in infrastructure investment.** The greater Twin Cities region is facing major decisions about its physical infrastructure that involve huge potential financial commitments and will lay the foundations for our economic life for at least 30 years. Without a coherent process for evaluating the investments as pieces of a larger economic strategy, however, we risk making some very expensive mistakes.

- **The inability or unwillingness of Minnesota's state and local governments to face up to the new fiscal realities.** The region faces the need for significant resources to build for its future at the same time as revenues needed to finance current public services are becoming tighter. If Minnesota's state and local governments do not protect their investment responsibilities—particularly post-secondary education—from encroachment by current consumption—chiefly health and long-term care spending—we will "eat our seed corn."

What the Public Sector Can Do

Minnesota's state and local governments spent $8.2 billion in the current biennium on K-12 and higher education. Millions more dollars are spent annually on highway maintenance, higher education, and a host of other functions that provide the foundations of prosperity. The 1996 Legislature approved another $614.4 million in capital spending on infrastructure projects. How well is this spending contributing to the long-run prosperity of the region? We and others have concluded: Not well enough.

State and local governments, like industries, are adopting explicit strategies to develop specialized advantages—collections of skills and other resources uniquely tied to their places. **One of the greater Twin Cities region's biggest problems is that there is no comprehensive strategy to guide decisions and public spending on activities that shape its long-term economic health.**

The region's leaders and citizens must craft a new relationship between business and government that travels in the intersection of public and private. The public sector's role should be to develop and oversee implementation of collaborative public and private strategies and investments related to competitiveness. Above all, the public sector should sustain an environment of incentives that prods people and institutions to embrace rather than resist change.

A Six-Point Agenda for the Economic Future of the Greater Twin Cities Region

The Twin Cities metropolitan area can and should become a world-class city region by capitalizing on its own history and consciously developing its unique niche. The public and private sectors should strengthen the Twin Cities region's position as a hub for international business services in the Upper Midwest. The region should build the advantages needed to support business headquarters and R&D, and should strengthen its global presence by improving the competitiveness of its world-class industries. **To succeed, the region must concentrate on six critical factors.**

Critical Success Factor #1

A highly talented, productive and innovative workforce.

The region's future depends on the skill, innovation and industriousness of its work force more than on any other factor. Knowledge has become the key strategic resource for all advanced economies. If the region is to become a center for company headquarters and R&D, a home of world-class industry clusters and a hub for international services, it must offer well-educated and trained workers at the cutting edge of their fields.

The policy priorities should be: Ongoing training and re-training of adults aged 17 to 80 who are already in the Twin Cities workforce; preparing young people to enter the world of work; attracting and keeping the "best and brightest" in the Twin Cities.

Public sector action steps for K-12 education: Have rigorous, world-class standards. Give strong support to Minnesota's graduation rule. Put more emphasis on foreign languages and technical careers. Create better links between schools and workplaces and smoother transitions between school, work and post-secondary education.

Public sector action steps for post-secondary education: More clearly differentiate the missions of the public higher education systems. Get the University of Minnesota back in the ranks of the best research universities in the U.S. in order to attract the "best and brightest" to the Twin Cities. Reverse the decline in higher education's share of the state budget. At whatever level of higher education appropriation, provide a greater share in the form of need-based financial aid. Collaborate with industries to develop specialized work force training for key activities and industry clusters. Develop a broad, statewide model for a "virtual university" that will transform the delivery of higher education.

Critical Success Factor #2

Strategic infrastructure to support headquarters, R&D, international business services and key industry clusters.

The Twin Cities region's infrastructure is generally in good condition, but increasing pressures on federal and state budgets mean that the Twin Cities will face a tough challenge just to maintain a good general infrastructure. And because most U.S. urban regions—and many regions abroad—now have good basic infrastructure, good *general* infrastructure will not be enough to establish a competitive edge.

Policy makers in Minnesota and the Twin Cities should ask: What investments in infrastructure will best support the Twin Cities region as a center for corporate headquarters, R&D and international business services in the Upper Midwest? What infrastructure improvements do the region's key industries require?

Our pick for the top-priority infrastructure investments: Make the University of Minnesota one of the top ten research universities in the nation. Move quickly to develop the information and communications infrastructure the region will need to support its niche. Improve air cargo and international air service. Consider highways and transit a competitiveness issue. Increase rail-truck intermodal terminal capacity. Adopt land use and growth policies that make most efficient use of urban services infrastructure.

Critical Success Factor #3

Improved productivity in services, trade and government.

The phenomenal rise in living standards during the years following World War II was fueled by dramatic increases in productivity. If Twin Citians want living standards to grow as fast in the next 30 years, firms and workers will have to improve productivity in services, the fastest-growing sector of the economy.

As the Twin Cities region positions itself as the international business service hub of the Upper Midwest, and as a home for corporate headquarters and R&D functions, it can and should seize competitive advantage by focusing on improving productivity in services, trade and government.

Action steps for the public sector: Obtain (or develop) and use information strategically to spur world-class productivity in key service industries. Develop productivity measures for service industries and report them to the public. Look for opportunities to introduce or intensify market pressures on service industries that are currently protected from competition. Help develop—in cooperation with employers—specialized training and education for the Twin Cities region's key business service industries and occupations.

Critical Success Factor #4

More saving and wiser investment in the foundations of future prosperity.

Productivity improvement is the only non-inflationary way to increase incomes and improve living standards over the long run. The amount of investment in plant and equipment, infrastructure, technology and human capital is an important determinant of the rate of productivity growth. In turn, the rate of investment is determined by the rate of saving.

Policymakers should ensure that the public sector's capital investments represent true net gain to the region. The Twin Cities economic strategy should also include a state effort to adjust tax policies, regulations, and programs so as to subtly encourage people and firms to invest for tomorrow rather than spend everything today.

Action steps for the Legislature: Set biennial state spending priorities explicitly. Reallocate state spending priorities to spend less on health care, more on post-secondary education. Dramatically reduce state and local government spending—including tax expenditures—on real estate development subsidies, direct subsidies to individual firms and industries, and location incentives. Revise tax policies to encourage investment by individuals and businesses.

Action steps for making better infrastructure investments: Define the "real region" for planning purposes for each of the core regional functions. Develop a Regional Balance Sheet to show the impact of current or proposed flows of infrastructure spending on the underlying capital stock of the region as a whole. Decide in advance that the most appropriate goal for infrastructure investment is improving productivity. Develop a comprehensive Capital Facilities Plan for the Twin Cities metropolitan area indicating how public-sector investment in infrastructure will be coordinated and leveraged with private investment to implement the desired strategy. Use the Capital Facilities Plan as the basis for the state bonding bill.

Critical Success Factor #5

A healthy civic and social fabric, and a high quality of life.

The greater Twin Cities region should preserve and repair its social and civic fabric, which has been a competitive advantage for the region. The region's quality of life is a critical strategic ingredient for its long-term economic health, and a vital social and community life also is essential to any civilized notion of "prosperity." *How* Minnesota's governments fulfill their responsibilities, especially their responsibilities for economic life, profoundly affects the health of the community.

General principles for improving the social fabric: Pay attention to important non-financial measures. Adopt urban growth policies that foster livable communities. Use public subsidies to promote access to opportunity by the least advantaged. Deliver some public services through communities.

Critical Success Factor #6

A redesigned safety net for workers to deal with new economic realities.

The region needs a new compact between workers, employers, and government, articulating the responsibilities of each in protecting workers and the labor market from the most devastating effects of employment disruption.

Action steps: Make health insurance and pension benefits more portable. Encourage more personal saving. Revamp Minnesota's unemployment compensation system to acknowledge the new reality of work dislocation. Revise tax policies to treat payroll workers and self-employed people equitably with regard to health insurance premiums. Facilitate the creation of a health insurance purchasing pool for self-employed individuals. The public sector should not, in general, add more new restrictions to employers' ability to adjust their work forces.

Remaking the Public Sector

The region saw several community task forces on competitiveness in 1994 and 1995. Many of the Citizens League's recommendations are remarkably similar to the recommendations of these earlier groups. But few of these recommendations appear to have turned into reality. Why?

We think there are fundamental flaws that work against progress in the public sector and thus thwart good intentions. For example, political boundaries don't correspond to economic realities. The region doesn't have appropriate "balance sheets" to distinguish flows of spending from stocks of wealth, and *transfers* of economic value from one place to another from *net* regional gain. And public sector institutions are seldom at risk financially if they fail to perform.

Realigning the public sector to correct these flaws is, of course, more easily said than done. The process would challenge many long-held convictions about how the public sector should do its job. It is difficult even to imagine how public services would look if redesigned—let alone to know how one would get from here to there.

How might these critical flaws in the public education system, for example, be corrected in order to meet the realities of today's workplaces? (We focus on education not because we believe it should be singled out for special criticism but because education accounts for nearly half of Minnesota's general fund spending and is arguably the state's most fundamental economic development responsibility.) We think the challenge is to:

- **create permanent but self-adjusting links** between employers and educational institutions, so that schools are themselves continually motivated to ascertain and meet the requirements of workplaces;

- **put schools at risk for performance,** so that there are financial penalties for graduating students who lack basic skills, and rewards for succeeding;

- **make employers part of the public system of continuing education** for the workforce and align incentives to prompt employers to invest more—and more equitably—in the training of their work forces.

State and regional policymakers might consider some provocative steps to remake the education system in this way. For example, the state might give part of the state's higher education appropriation directly to industry cluster consortia to develop "Industry Cluster Excellence Institutes"—public-private institutes for the development of specialized productivity-improving workforce advantages in the Twin Cities metropolitan area. The state might expand the Post-Secondary Options Program to allow public secondary students to enroll in advanced vocational education provided by the Industry Cluster Excellence Institutes and other industry providers. Or the Legislature could put Minnesota's public secondary education system at risk for performance by allowing employers and higher education providers to charge back to the Minnesota graduate's school district the costs of remediation to achieve basic competency.

Of course, these ideas are just a starting point for discussion and point to many more unanswered questions. We welcome comments on these ideas and encourage discussion of other ways to realign education and other public services to meet the demands of today's economy. Focusing on these issues can, we think, help the region get past good intentions to fundamental innovation in public services.

Get Started in 1997
Create a Metropolitan Economic Strategy Commission

None of the current processes in place to address competitiveness concerns provide a legitimate, coherent voice for the real Twin Cities economic region as a distinct urban region on the global stage. **The region must invent a new system.**

The Governor should propose, and the Legislature should create, an ad hoc Metropolitan Economic Strategy Commission. The Commission should be directed to propose the vision for the region's economic future; outline key public sector strategies, focusing on aligning existing public sector responsibilities—including K-12 and post-secondary education, infrastructure investment, revenue-raising—to meet new economic realities; and propose an ongoing process for updating, monitoring and reporting the results of the long-range strategy.

The Commission should also propose permanent changes in local, regional and state governance that are needed given the new reality of the greater Twin Cities' metropolitan region—a 24-county, bi-state metropolitan area with increasing interstate and international ties.

Conclusion

The reality of the global information economy is that companies, individuals and government will have to work harder than they have in recent decades to create the conditions required for prosperity. To secure a prosperous future, the greater Twin Cities must offer the *best* of some talents, resources, and amenities. The region's history of adapting readily to changed economic circumstances gives us cause for hope that the future will be bright. We urge citizens and policymakers to act now to create that future.

Compete Globally,
Thrive Locally

What the Public Sector Should Do
To Help the Greater Twin Cities Region Prosper

What's the Problem?

The Global and National Context

Backdrop: The American Era

For the 40 years following World War II, the United States was economically on top of the world. The nation enjoyed a position of advantage made possible by unique historical and political circumstances, extraordinarily successful management and technological innovation, and critical contributions by the public sector.

The U.S. is undoubtedly still a leading global economic power. On average, Americans are rich by world standards and continue to be the envy of the world. But our comfortable security has been shaken and an ever-more-prosperous future is no longer virtually guaranteed.

In this section of the report, we take a brief look at this remarkable recent record of American prosperity.

Unique circumstances

In the late 1920s, the nation's productive infrastructure was in reasonably good shape. Young people were well-educated (by 1920 standards) and had a strong work ethic. Water was clean and natural resources plentiful. The physical infrastructure, while primitive compared with today's, was in fairly good repair.[1]

When the Great Depression hit, governments at all levels were bewildered. As policymakers struggled to cope with the unprecedented challenge, they took for granted that human and physical infrastructure was available, and eventually defined the economic question as how to crank up the national production machine, and the solution as expanding demand.

It wasn't only Keynesian pump-priming that boosted the economy out of the Great Depression, however, but also the economic demands of World War II. The War "forced business and government to work together at the truly prodigious production of weaponry," according to economic commentator Robert Samuelson. Few people thought of government's wartime role as industrial policy in the strict sense of the word. Nevertheless, "the war effort

1 John Adams, testimony to committee, August 30, 1994.

gave Americans a new model for national improvement," Samuelson writes, "an unstated alliance between business and government. Government would set broad national goals (as in the war) to be met by the bounty of business (as in the war)," Samuelson adds.[2]

That production machine, once cranked up, was put to work at the prodigious production of consumer goods at war's end. More favorable circumstances for economic success could hardly be imagined. The postwar "baby boom" of population growth fueled demand, already pent up from years of Depression and war. The accidents of demography and history spawned the first truly mass market—millions of people with money to spend and relatively unsophisticated, homogeneous tastes, and an evolving mass media to communicate with those potential consumers. And there simply was no competition for the American consumer dollar, because the economies of Europe and Asia lay ravaged by the war.

The American innovation was to mass-produce undifferentiated products and mass market those products to a huge and fast-growing domestic market.[3] It was an ingenious response to unique circumstances and, at this, America excelled.

Sustained prosperity

The productivity of the American economy exploded during the postwar period. From World War II until 1973, U.S. productivity rose at an average of 2.8 percent annually.[4] Productivity in "making and moving things"—in manufacturing, farming, mining, construction, and transportation—improved even faster, at an annual rate of 3 percent to 4 percent.[5]

These dramatic productivity improvements were fueled in part by the tremendous efficiencies that mass production and mass marketing techniques made possible. Other less noticeable factors contributed as well: Public sector investments in the war production machine had yielded important new technologies that were quickly applied to peacetime production. Frequently overlooked was the healthy, abundant stock of capital—natural resources, physical infrastructure, and social and human capital—available to harness for production.

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2 Robert J. Samuelson, "Great Expectations," *TIME*, January 8, 1996, pp. 24-33.

3 Ray Marshall and Marc Tucker, *Thinking for a Living*. New York: Basic Books, 1992; and Joseph Cortright, "Learning to Compete Again," *State Legislatures*, October 1994, p. 32.

4 Paul Krugman, *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations*. New York: Norton, 1994, p. 277.

5 Peter Drucker, "The New Productivity Challenge," *Harvard Business Review*, November-December 1991, p. 70.

Largely on the explosive growth in productivity, Americans on average found their incomes and living standards rising rapidly.[6] Looking back from today's vantage point:

- **Per capita income (in constant 1987 dollars) rose** from $6,367 in 1945 to $9,875 in 1970 (an increase of 55 percent), and to $14,696 in 1994 (an additional increase of 49 percent, for a total increase of 130 percent over 1945, *after* accounting for inflation).[7]

- **The income gains were shared broadly.** The GI Bill had provided access to higher education—formerly a privilege of the well-to-do—to vast numbers of middle-class young adults, who reaped the economic benefits in the form of higher earnings. But white-collar, college-educated workers were not the only ones to gain. The techniques of mass production made tremendous gains in productivity possible among blue-collar workers of modest educational attainment. Strong labor unions succeeded in ensuring that the benefits of those productivity increases were shared by blue-collar workers in the form of higher wages, generous benefits and increased leisure time. The system "made the front-line workers part of the largest and richest middle class the world had ever seen."[8]

- **Living standards have also improved dramatically since 1945.** Life expectancy rose from 65.9 years in 1945 to 75.7 years in 1994. In 1940, only 25 percent of the U.S. population graduated from high school and only 5 percent from college; in 1994, more than 80 percent graduated from high school and 22 percent from college. The poverty rate dropped from 39.7 percent in 1949 to 14.5 percent in 1994.[9]

- Rising incomes and a proliferation of relatively low-cost consumer products provided the average household with **conveniences and amenities now taken for granted.** For example, the share of households with telephones rose from 46 percent in 1945 to 94 percent in 1994. Television, nonexistent in households in 1945, is found in 98 percent of households now—and the average household has not one, but two televisions.[10] Sixty-nine percent of households now have a clothes dryer, compared with only 45 percent as late as 1970.[11]

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6 *Ibid.*

7 Samuelson, *op. cit.*, p. 27.

8 Marshall and Tucker, op. cit., pp. 5-10; and "What America Needs Unions—But Not The Kind It Has," *Business Week*, May 23, 1994, p. 74.

9 Samuelson, *op. cit.*

10 *Ibid.*

11 *TIME*, January 29, 1996, p. 38.

The sustained period of expansion and affluence influenced Americans' expectations about the "contract" between employers and employees. In the evolving new ideal, workers were to be educated and trained for work as young adults, then work for one employer for a long period of time—perhaps for life. In return for loyalty to the company, employers were to provide generous non-salary benefits such as paid vacation and security in the form of medical and life insurance, disability insurance, and retirement pensions.

Not all workers enjoyed this ideal relationship, of course. The mass production model relied on the employer's ability to adjust the size of the work force to respond to changes in demand; recession inevitably meant layoffs for blue-collar workers. And people of color were far less apt to enjoy employment security. But the vision of the loyal employee and the paternalistic employer provided the ideal to which many aspired.

The prosperity of the postwar period was expressed foremost through improved living standards, and improved living standards through consumption. The phenomenon revealed Americans' underlying belief in the purpose of economic life. James Fallows, in his look at how the U.S. measures up to Asian competition, explains that "in the Anglo-American model, the basic reason to have an economy is to raise the individual consumer's standard of living." The goal is materialistic, in contrast to the more political Asian view, where the goal is to increase the collective national strength.[12]

Government's role

Cultural attitudes were not alone in building the consumer economy, however. Government itself, embracing the belief that the purpose of an economy is to raise the individual consumer's standard of living, has helped through a host of policies and programs.

Having defined the economic problem during the Depression as slack demand, the government continued to focus on maintaining demand, even when doing so has meant large public and private debt (Adams). Government's attention to consumer spending in the management of short-term economic cycles is just one reflection of how, as one wag said, consumption has been made a patriotic duty.

Following World War II, homeownership and the suburban lifestyle were enabled by the availability of low-cost FHA and VA mortgage financing, while huge investments in highway infrastructure transformed most U.S.

12 James Fallows, *Looking at the Sun: The Rise of the New East Asian Economic and Political System*, New York: Pantheon, 1994, p. 208.

urban regions into automobile societies. Many other, less visible public policies, such as tax deductibility of credit-card and installment debt interest, helped make consumption the American way of affluence.

Just as employers expanded their role in providing an economic safety net for workers, government expanded its role in providing a broader social safety net. Government's role could be expanded while preserving the American belief in limited government, because the expanding economy accommodated increased public spending without strain. According to Samuelson, government was able to "operate on the assumption that resources, if not infinite, were nearly so. Future costs would be covered by new tax revenues, which would flow from faster economic growth. Today's budget deficit would become tomorrow's surplus. Thus reassured, government could spend more on the old, the poor, the cities and the schools".[13]

The ability to spend at this pace was helped by the unique demographics governments faced: A huge population of productive, taxpaying young adults and a much smaller population of old and disabled individuals. The safety net could be generous.

Even the way public services were delivered—in libraries, drivers license bureaus, police forces—reflected the conditions and assumptions of the era.[14] Public service providers, like other businesses, were in the business of satisfying the unsophisticated and homogeneous tastes of a mass market. And, like Ford producing black cars, government could for many years deliver its services, comfortable in the knowledge that consumers had few if any alternatives. (The more recent advent of competition from private mail delivery, security services, and a host of other alternative providers has prompted a rash of efforts to "re-invent" many public services.)

The expectation of prosperity

The past 40 years have not been the "land of milk and honey" for all Americans, of course. Poverty did not disappear, although it did abate during the Great Society years and has declined substantially among the elderly. Stark racial disparities cast a pall over the picture; Americans of color, on average, have enjoyed less prosperity than whites, and have suffered from poverty far more.

Still, the experience of pervasive and sustained affluence confirmed Americans' faith in the methods—mass production, mass marketing—by

13 Samuelson, *op. cit.*, p. 30.
14 Cortright, *op. cit.*, p. 35.

which it was achieved. Affluence also solidified Americans' notion of what an economy is for: facilitating individual living standards, as signified primarily by consumption.[15]

Against this backdrop of unique historical, political, economic and demographic circumstances, Americans, by and large, developed an abiding optimism that prosperity—and global economic dominance—would continue. Samuelson concludes:

> "Call our era the Age of Entitlement. Stretching from the close of World War II to the mid-1990s, it is best defined by its soaring ambitions. We had a grand vision. We didn't merely expect things to get better. We expected all social problems to be solved. In our new society, most workers would have rising incomes and stable jobs. Business cycles would disappear. Poverty, racism and crime would recede. Compassionate government would protect the poor, old and unlucky. We expected almost limitless personal freedom and self-fulfillment. We not only expected these things. After a while, we thought we were entitled to them as a matter of right."[16]

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15 Fallows, *op. cit.*
16 Samuelson, *op. cit.*, p. 26.

The Global Economy

The circumstances that nourished that comfortable prosperity have vanished.

Americans must come to grips with this fact. To do that, we must sort through the temporary turmoil of layoffs or plant closings and try to discover the deep-seated "megatrends" that will change the context of economic activity over the long term.

In the next two sections of this report, we take a look at these long-term, world-wide forces—forces that are not likely to be altered by state and local governments, no matter how inspired or aggressive the strategies may be. Minnesota and the greater Twin Cities region will be both prodded and limited by trends that are similarly faced by our neighboring cities and states—indeed, by urban regions across the globe. It's useful to start by understanding what we're up against, and what we're not likely to change by will alone.

Globalization: Not just trade

The charge to this study committee was to ask "What steps should the public sector take to position the greater Twin Cities region for prosperity in the global economy?" Naturally, one of the first trends to be placed under the microscope was globalization. We found that the term has fallen into some disrepute as a result of widespread overuse and misuse. "Nauseating," said one resource person. "Globaloney," charged one skeptical economist.

If not baloney, what is it? What globalization is not is international trade, at least not *only* international trade. Rather, globalization is a complex and evolving pattern of "cross-border activities of firms, involving international investment, trade and collaboration for the purpose of product development, production and sourcing, and marketing."[17] The elements of this complex pattern include the following:

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17 Organization for Economic Cooperation and Development, Neighborhood Employment Network, *OECD Jobs Study*, 1994, p. 28.

- **International trade is growing.** Barriers to free trade, in the form of regulation and special protections, are dropping. The North American Free Trade Agreement (NAFTA) and most recent round of the General Agreement on Tariffs and Trade (GATT) are two of the most visible examples of a worldwide movement toward greater, more open competition.[18]

  As regulatory barriers drop and transportation and communication become easier and cheaper, international trade is growing faster than every domestic economy in the world—twice the growth rate of the Gross Domestic Products (GDPs) among industrialized countries in recent years.[19]

  In the U.S., international trade accounts for 27 percent of GDP, three times the 1960 share.[20] One of every six manufacturing jobs and one of every four new manufacturing jobs depend on exports.[21] Service sector exports are also increasing rapidly.[22]

  Trade is expected to grow even faster in the near future. While U.S. exports have been growing at an average annual rate of 6.7 percent since 1990, the growth rate is expected increase to 10 percent annually.[23]

  Growth in trade has been accompanied by growth in demand for such trade-related services as shipping, freight forwarding, translating, international banking, and related accounting and legal services.

- **Companies are unbundling production,** locating specific activities where they can be accomplished most efficiently or out-sourcing the activities entirely, often across national borders. Companies need no longer be limited by the resources available in their home markets.[24]

  Many products are now assembled in many places with component parts from many places. About one-third of U.S. "exports" and "imports" are actually intrafirm transactions—transfers of products between the various affiliates of the same corporation.[25] The definition of "import"

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18 Alan Greenspan, "The Creation of Economic Value in the 21st Century," *The Region*, Federal Reserve Bank of Minneapolis, December 1995, p. 38.
19 Darin Narayana, testimony to committee, February 7, 1995.
20 Hennepin International Trade Services, *Strategic Direction 1996-1998*, undated, p. 13.
21 *Ibid.*
22 Claudia Liebrecht, testimony to committee, February 7, 1995.
23 Hennepin International Trade Services, *op. cit.*, p. 13.
24 Michael E. Porter, *The Competitive Advantage of Nations: Creating a Competitive National, State or Local Economy*, Boston: Harvard Business School Management Programs, p. 9.
25 John Kline, Remarks, *State and Local Economic Strategy Summit* (Proceedings), July 1995. Hubert H. Humphrey Institute of Public Affairs, University of Minnesota, p. 29.

and "export" is increasingly muddy, and within a few years the terms will no longer mean anything.[26]

- **Companies are modifying their organizational structures to take advantage of foreign opportunities and markets.** They are creating foreign subsidiaries, establishing partnerships and engaging in joint marketing enterprises. Products and services that are eventually sold by these enterprises might not be physically transported from the U.S. abroad, but they are nevertheless "global."

- **More domestic products are facing foreign competition.** Discussion of globalization often focuses on exports, but imports are transforming the economy as well. Imports account for 11 percent of GNP and bring overall trade to about 21 percent of GNP.[27]

  In 1960, only 20 percent of U.S.-produced goods faced foreign competition, but by 1980, more than 70 percent were fighting off international competitors.[28] Presumably, the presence of foreign competition benefits consumers by spurring higher quality and lower price.

- **Nearly everything must now meet global standards of quality and is affected by global norms.** The prices and quality of domestic products must be competitive, or consumers can choose different products. Foreign competition also affects the U.S. labor market. The domestic auto industry, for example, isn't a big exporter, and imports capture only about 15 percent of the U.S. market. But the presence of foreign competition affects the retail prices U.S. automakers can charge, the wages of U.S. auto workers and the fortunes of those who supply the U.S. companies.[29]

  The International Organization for Standardization (ISO) has developed a series of voluntary standards for quality management and quality assurance. The ISO's purpose in developing the standards, which represent an international consensus of the essential features of a quality system, was to facilitate the international exchange of goods and services. Registration with ISO 9000 certifies to customers that consistent quality

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26 Ford Runge, testimony to committee, August 16, 1994.
27 Clyde V. Prestowitz, Jr., "Playing to Win," *Foreign Affairs*, July-August, 1994, p. 188.
28 Doug Ross and Robert E. Friedman, "The Emerging Third Wave: New Economic Development Strategies in the '90s," *Entrepreneurial Economy Review*, Autumn 1990, p. 3.
29 Clyde V. Prestowitz, Jr., "Playing to Win," *Foreign Affairs*, July/August 1994.

standards are met and superior services are offered. Nearly 100 companies have adopted ISO 9000 as national standards. [30]

- **Workers in other nations are equaling or surpassing American workers in education and skills.** A recent study by the Organization for Economic Cooperation and Development (OECD) found that 23.5 percent of Americans placed in the lowest of five skill levels, compared with only 3.8 percent of Swedes. Of the seven nations in the survey, the U.S. was ahead of Poland in basic literacy but behind everyone else.[31]

  Students—future workers—in other nations are increasingly well prepared with valuable skills. Among 13-year-olds taking the International Assessment of Educational Progress (IAEP), U.S. students on average scored well below the top on mathematics and science. South Korean students were at the top of the list, which means that U.S. students are doing less well academically than students whose country's average wage is one-tenth the average wage of an American worker.[32] Other studies confirm the finding that on average, American students are falling behind students in other countries—including many so-called "developing" countries.[33]

  The increase in brainpower abroad is not confined to the ranks of less-skilled workers. While the percentage of college students majoring in engineering is declining in the U.S., it is increasing in China, Eastern Europe, India, Latin America and Russia. More than half of those who receive doctoral degrees in science and engineering from U.S. universities have student visas, and the world's second-largest pool of scientifically trained, English-speaking people is in India.[34]

- **U.S. firms are competing with firms from countries that are investing aggressively in economic growth.** Between 1988 and 1992, fixed investment averaged 34.4 percent of GDP annually in Indonesia, 32.7 percent in Japan, 27.7 percent in Malaysia and 20.6 percent in India. The seven nations of the European Community (minus Luxembourg) invested 21.3 percent of GDP, while the U.S. trailed far behind at 15.1 percent.[35]

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30 ISO News Service. See the ISO 9000 Group Home Page at http://www.commerce.associates.com/ or contact the ISO Home Page at http://www.iso.ch/

31 *The Economist*, December 9, 1995, p. 27.

32 Marshall and Tucker, *op. cit.*, p. 65.

33 Eric A. Hanushek, *Making Schools Work: Improving Performance and Controlling Costs*, Washington, D. C.: The Brookings Institution, 1994, p. 41-44.

34 Robert H. Hayes, "U.S. Competitiveness: 'Resurgence' versus Reality," *Challenge*, March-April 1996, p. 43.

35 "The World Economy in Charts," *Fortune*, July 26, 1993. (WEFA Group data.)

Historically, wealthy and developed nations have invested more in research and development than have less-wealthy nations. That pattern too is changing. South Korea and Taiwan spend as large a share of their GDPs on public and private research and development (R&D) as do many European economies, and the growth rate in their R&D spending far surpasses all of the rich economies, including Japan, Germany and the U.S.[36]

These trends were illustrated vividly in a recent news item: Ten years ago, all of the world's 10 tallest buildings were in North America. With the expected completion of Shanghai's Jin Mao building in 1998, only five will be in North America. The others are the twin Petronas Towers in Kuala Lumpur, Malaysia (at 1,476 feet), Hong Kong's Central Plaza and Bank of China, and the T&C Tower in Kaoshiung, Taiwan.[37]

Largely as a result of heavy investment in infrastructure, education and innovation, several of the fast-growing Asian economies are showing productivity growth that far outpaces productivity gains in the U.S. Between 1986 and 1993, productivity (GDP per employee) grew an average of 11.2 percent annually in Thailand, 5.7 percent in India, 5 percent in Taiwan and 4.8 percent in Malaysia[38] compared with less than 1 percent annually in the U.S. Of course, these nations were starting from far behind America in productivity, so their gains have not yet put them ahead of the U.S.

It is not clear whether the spectacular growth rates and economic performance of the "Asian tigers" and other newly-competitive economies will continue. But for the forseeable future, the success these economies are enjoying represents a competitive challenge for U.S. firms.

- **The growth markets are abroad.** The great U.S. mass market provided by the post-War baby boom is aging. In 1950, 10 percent of the U.S. population was over age 65. By 1990, that share had grown to 12.5 percent and by 2030, the share is projected to be 20 percent. Meanwhile, the generation replacing the "baby boom" is much smaller.[39]

  The U.S. market still will be huge and the largest market for U.S. producers in the near future. But companies concerned about growth will increasingly seek faster-growing and lucrative markets elsewhere.[40]

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36 *The Economist*, May 18, 1996, p. 80.
37 *Governing*, March 1996, p. 16.
38 *Asiaweek Online*, July 7, 1995. See the Asiaweek Home Page at: asiaweek-webmaster@pathfinder.com
39 Hazel Reinhardt, testimony to committee, August 30, 1994.
40 *Ibid.*

They might find such markets in India, whose 150 million middle-class citizens outnumber the middle-class populations of Germany and France combined.[41] Or in China, whose economy (measured in purchasing power) is now the world's third largest.[42] Or several other nations whose populations and economies are surging.

- **Exposure to foreign competition, ideas and customers is associated with many other benefits.** Exporting companies pay from 5 percent to 15 percent more than companies that don't export. They create jobs 20 percent faster than comparable non-exporting firms, and worker productivity is up to 20 percent higher.[43] They also invest more in capital equipment than companies that don't export.[44]

- **All of these trends are shaping the hierarchy of urban regions.** A handful of cities—such as London, Tokyo, New York, Los Angeles, Chicago and San Francisco—continue to be the nerve centers of the world economy.[45]

  These global city-regions are centers of finance and specialized service firms. They are the sites of production in leading industries. Equally important, these regions provide huge consumer markets for the products and innovations produced.[46] Enormous populations allow these global economic regions to attain efficient economies of scale in their consumption, infrastructure and professional services.[47]

  Other smaller city-regions are arrayed in a hierarchy relative to the global nerve centers.[48] For example, metropolitan areas such as Philadelphia, Boston, Dallas, Baltimore, Minneapolis, Cleveland, Denver, Seattle, Indianapolis, New Orleans and Portland serve as regional capitals—connecting points between their geographic regions and the global marketplace.[49]

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41 "Progress Elsewhere," *Star Tribune*, January 13, 1996, p. D1.
42 "The World Economy in Charts," *op. cit.*
43 "Creating Globally Competitive Communities," *Industry Week*, May 20, 1996, special section.
44 Hennepin International Trade Services, *op. cit.*, p. 12.
45 Peter Hall, *Cities and Regions in a Global Economy*, Institute of Urban and Regional Development, University of California at Berkeley, 1991; and National Research Council, cited by Neal R. Peirce, *Citistates: How Urban America Can Prosper in a Competitive World*, Washington, D.C.: Seven Locks Press, 1993, pp. 292-3.
46 Saskia Sassen, *The Global City: New York, London, Tokyo*, 1991.
47 Kenichi Ohmae, "The Rise of the Region State," *Foreign Affairs*, Spring 1993, pp. 78-79.
48 Hall, *op. cit.*
49 National Research Council, cited by Neal R. Peirce, *op. cit.*, pp. 292-3.

Technology, Demography and Other Important Trends

Globalization has changed the context of economic activity. But globalization isn't the only potent, long-term trend that will affect the U.S.'s economic future. Information and other technology is transforming what we make and how and where we make it. Consumer expectations have changed. The "contract" between employers and employees is changing. What follows is a brief discussion of these and other long-term trends.

The explosion of information technology

Innovations in information and communication technology are transforming how we live. The boundaries between the telephone, the television and the computer are blurring. No longer games, gimmickry or work tools exclusively for the nerd set, these information innovations are fundamentally changing how people work, play, learn and run their households. Businesses, pressed by intense competition, are looking to the technologies to enhance productivity by getting the job done more easily, cheaper, faster—whether the job is selling shirts or diagnosing illness. Video conferencing, distance learning, home shopping and medical imaging are some of the applications already available.[50] The recent explosion of activity on the Internet and World Wide Web heralds more advances that will further shrink the distances between buyers, sellers, co-workers and competitors.

The federal Telecommunications Act of 1996 will break down the walls that have separated the telephone, cable television and computer industries and have tended to stifle innovation up until now. Industry analysts expect a tidal wave of mergers, acquisitions and joint ventures to occur in the wake of the new law. A burst of innovation is also likely to follow as companies rush to establish market leadership by developing new information products and services. The vision of an "information superhighway"—a telecommunications network connecting the entire country with interactive voice and data capabilities—is within reach.

50 Aimee Gallogly, testimony to committee, November 15, 1994.

Within a few years, telephone companies are expected to change their pricing to a flat subscription rate, rather than charging by distance and time.[51] Removing the link between distance and the cost of communication "may well prove the most significant economic force shaping the next half century," *The Economist* predicted.

The transformation wrought by information technologies will, in turn, affect everything from transportation systems to grocery stores.

In this new environment, information infrastructure has become a critical success factor for firms and economic regions. Singapore is the best example of the state of the art in information infrastructure and offers a glimpse into the future. Singapore became in 1989 the first country to have nationwide ISDN (Integrated Services Digital Network), the wider bandwidth that permits full-motion video to be transmitted over telephone lines. Singapore now has international ISDN links with 11 countries, including the U.S. Its Teleview system, started in 1990, is the world's most advanced system for transmitting photographic-quality images via television. Video conferencing is available to 19 countries around the world.

Technology: Transforming how and where we make things

Computers and information technologies are dominating what we make and how we make it. Technology is what makes globalization such a powerful force, giving companies:

> ...the power to nullify or offset disadvantages in local factors of production. If a company has high wages in its home market, it can automate. If a company lacks a key raw material, it can source it abroad or replace it with a synthetic or substitute material. Technology gives companies the power to turn disadvantages in their local factors of production into competitive advantages. The high cost of land in Japan, for example, has spurred many competitive innovations, including space-saving just-in-time manufacturing techniques.[52]

New technologies are also improving production and allowing faster operations decisions.[53] Firms are turning to new technologies and "flexible manufacturing" processes to reduce the time needed to develop and introduce new products, and to respond to the specialized tastes of sharply

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51 *The Economist*, September 30, 1995, p. 15.
52 Porter, *op. cit.*, p. 9.
53 "Waking Up to the New Economy, *Fortune*, June 27, 1994, pp. 38.

defined market segments. Production runs are smaller and products more varied.[54]

One of the impacts of the new technologies has been to affect where manufacturing firms locate. The Industrial-era image was of the manufacturing plant, smokestacks belching, perched on the riverbank in the center of the city.

Dramatic improvements in manufacturing productivity mean that fewer workers are needed and when fewer workers are needed, companies have less need to locate near a large urban population base to assure a pool of workers. At the same time, as multi-story plants give way to horizontal factories, manufacturers need more space and cheaper land—typically found in outlying areas. Environmental regulations, too, favor undeveloped "green fields" over the "brown fields" of urban areas. Interstate highways have made previously remote areas accessible, and advanced telecommunications and other technologies are also making it easier for manufacturers to locate in outlying areas. Rural communities—hungry for jobs—are aggressively seeking employers.[55]

Together, these factors provide a nearly irresistible incentive to locate production facilities away from the core of metropolitan areas, in the suburban fringe or even rural areas.[56] The trend is not likely to be reversed. Central cities concerned about attracting manufacturing businesses will find themselves battling powerful economic forces spurring manufacturers outward.[57]

Shipping and inventory are becoming more sophisticated

Competition is producing ruthless pressure to reduce costs of transportation and inventory. Companies are responding with a variety of strategies, beginning with new production processes geared to turn out "just-in-time" inventory.

Information technologies are enabling some aspects of production to be centralized to lower transportation costs and speed turnaround. For example, a publishing business can complete pre-press work on a document, then send the document electronically to a printer. Or a publisher can transmit documents electronically to low-cost suppliers anywhere in the country or

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54 William A. Testa, "Trends and Prospects for Rural Manufacturing," *Economic Perspectives*, Federal Reserve Bank of Chicago, March/April 1993, p. 32.

55 David Beal, testimony to committee, September 13, 1994.

56 *Ibid.*; and Testa, *op. cit.*

57 Testa, *op. cit.*

even off-shore. Many national publishers are printing in a variety of regional centers in order to reduce shipping and mailing costs.[58]

Manufacturers and others are "outsourcing" their transportation functions to companies who are positioning themselves as "amodal logistics providers"—that is, full-service companies that handle all aspects of transportation, from inventory control and tracking to delivery.[59]

Today's logistics business involves sophisticated computer models that calculate the best shipping strategy based on the current costs of the various modes of transportation.[60] Each of the transportation modes plays an important part in meeting overall freight transportation needs.[61] For example, air is becoming more competitive, especially for time-sensitive products and products with a high value-to-weight ratio. Bulk commodities such as coal and grain are still typically shipped by rail or barge. For trips of less than 400 miles, and for many beyond this threshold, trucking continues to be the predominant mode of choice.

Intermodal shipping, which combines the efficiencies of railroad, trucking and steamship, has been growing 8 percent per year nationally and now makes up 15 percent of all U.S. shipping.[62]

Different products, different consumers

Consumers' tastes are becoming more differentiated. Henry Ford could make all of his cars black. Today, a General Motors engineer bewails how demanding consumers have become about the number and location of a car's coffee cup holders. Technological advances and foreign competition, combined with rising incomes and educational levels and the availability of mass information, have all made for demanding customers.

Products can no longer compete solely on cost and price. While keeping costs low may help a company's competitive position, low cost isn't enough to succeed in the long run. To sustain their competitive advantage, companies must constantly upgrade—innovating and finding specialized advantages that are unique and hard for competitors to replicate.[63]

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58 Metropolitan Council, *Twin Cities Industry Cluster Study*, July 1995, 24.
59 Lisa Peterson, testimony to committee, November 29, 1994.
60 Paul Anton, testimony to committee, October 30, 1994.
61 Randall Halvorson, testimony to committee, October 24, 1995.
62 Minnesota Intermodal Railroad Terminal Study, *Need for Intermodal Railroad Terminal Facilities in the Twin Cities Metropolitan Area*, February 1995, p. 6.
63 Porter, *op. cit.*, pp. 10, 12.

Value is created, not discovered. Knowledge, not natural resources, has become the key strategic resource. The trend, according to economist Alan Greenspan, is "toward an increasing conceptual content of output—the substitution, in effect, of ideas for physical matter in the creation of economic value."[64] The value of real output has increased by about 3 percent per year, but the actual weight of that output has gone up much less. "The difference reflects the substitution of impalpable concepts for physical volume," Greenspan says.[65]

Services are growing in importance

Service industries are growing faster than industries that make and move things. Nationwide, manufacturing employment dropped 2.8 percent between 1983 and 1992, and employment in mining dropped 33.4 percent. Service sector employment, however, grew 48.5 percent; finance, insurance and real estate grew 19.4 percent; transportation, communications and utilities grew 17.9 percent; and government employment grew 15.5 percent.[66] Even these figures probably underestimate the true growth of service employment, because in addition to services identified as such, an increasing share of what is counted as manufacturing employment is actually service activity—home office functions such as software design, engineering and marketing.

Service sector productivity has not improved as fast as manufacturing productivity. Despite investing proportionately more than manufacturers in productivity-enhancing information technologies, service industries saw their productivity increase less than 1 percent annually during the 1980s.[67] The pace of improvements has quickened during the 1990s, in part a delayed benefit of information technologies put in place earlier. Deregulation, too, has put pressure on many previously sheltered industries to improve their productivity.[68]

There is considerable debate about whether the increasing share of services in the economy is inevitable, and if it is, whether the trend is good or bad news. Some argue that the trend is a natural outgrowth of improved productivity in manufacturing and agriculture and proof of an evolution toward a "knowledge economy." As natural resources account for less of the final value of many products, they argue, more of the value is provided by the

64 Alan Greenspan, *op. cit.*, p. 37.
65 *Ibid.*, p. 38.
66 Minnesota Department of Trade and Economic Development, *Compare Minnesota 1994-1995*, p. 25.
67 "Technology and Unemployment: A World Without Jobs?" *The Economist*, February 11, 1995, p. 23.
68 *Ibid.*

services that make the product unique and desirable—the research, design, engineering, marketing, packaging and distribution.

Others, such as geographer John Adams, caution that many services impose a drag on the productive capacity of the economy. Adams says that:

> [a]s our services economy has expanded during recent decades, the sectors that have expanded fastest seem to be rife with unhealthy transactions. Large segments—but by no means all—of these industries form what looks to me like a vast web of monopolistic or oligopolistic or coercive activity that delivers services that people who, if they were given free and informed choices, would often prefer not to buy, and at prices defined outside a willing buyer-willing seller bargain. These service transactions are frequently unhealthy because although their contribution to GNP flows are substantial, their net contribution to regional and local balance sheets are often invisible, and frequently are negative.

"Services" ecompasses a wide variety of activities, and services are bought and sold under different conditions, Adams notes. Business services, such as engineering, payroll services, advertising and facilities management are bought and sold in competitive markets, often global markets. Likewise are personal services,—child care, entertainment, automobile repair—bought and sold in competitive markets.[69]

In the case of licensed professional services, such as health care and legal services, purchase is often non-discretionary and prices are disguised by third-party payment systems. In the case of government services, purchase is almost always non-discretionary and government determines what will be sold, how much will be sold and what price will be charged. Under these circumstances, the price paid might not be a reliable indicator of the sector's productive contribution.[70]

The United States does have a greater share of people engaged in such "overhead" occupations as finance, insurance, real estate, services and government than many other industrialized countries—44 percent of U.S. employment, while Korea has 22 percent, Japan 29 percent, Germany 36 percent and England 41 percent.[71] Japan has enacted policies specifically designed to discourage "service-ization, the tendency for marginal or

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69 John S. Adams, personal correspondence, June 19, 1996.

70 *Ibid.*

71 Fredrick M. Zimmerman, *Our Industrial Economy Revisited,* speech given to the Minneapolis Rotary Club, September 24, 1993, p. 6.

counterproductive service activities to preempt ever more of the economy's labor," according to Japan observer Eamonn Fingleton.[72]

Whether pernicious or auspicious, the growth in the service sector has important implications for overall productivity growth. Recent manufacturing and agricultural productivity improvements, while robust, haven't been enough to sustain the income gains in the earlier part of the century, according to Peter Drucker. "There are too few people employed in making and moving things for their productivity to be decisive," Drucker says.[73] Because the service sector is so much larger than the manufacturing sector, an increase in the rate of growth in service productivity from 0.5 percent annually to 1.5 percent annually would have a much larger impact on the economy than raising manufacturing productivity growth from 2.5 percent to a very brisk 5 percent.[74]

The changing relationship between workers and work

Fierce competition has prompted employers to reduce their overhead expenses, including payroll expense, through "downsizing" and use of temporary workers, and by reducing or eliminating benefits. There have been widespread reports of a pervasive sense of insecurity, not just among blue-collar workers but among managers as well.

The current turmoil makes it hard to sort out the longer-term transformations that may be under way. Workers' gloom isn't completely justified. For one thing, the old image—loyal employee, same job, paternalistic employer—was always more of an ideal than the rule for many blue-collar workers. Today, most middle-aged workers still have career jobs.[75] More jobs were created than destroyed between 1991 and 1995.[76] Overall employment in the U.S. is growing and the 1.1 percent net job reductions in the largest U.S. corporations were the lowest in a decade.[77]

A more recent Gallup survey of randomly selected working adults across the U.S. revealed that, surprisingly, workers might be anxious about overall

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72 Eamonn Fingleton, *Blindside: Why Japan is Still On Track to Overtake the U.S. Economy by the Year 2000.* Boston: Houghton Mifflin, 1995, p. 54.

73 Peter Drucker, "The New Productivity Challenge," *Harvard Business Review,* November-December 1991, p. 70.

74 Krugman, *op. cit.*, p. 278.

75 Samuelson, *op. cit.* p. 32.

76 "Squeezing American Workers," *U.S. News and World Report,* January 22, 1996, p. 68.

77 "Out One Door and In Another," *Business Week,* January 22, 1995. (American Management Association data.)

economic conditions, but most are happy with their own work and 90 percent said they were *not* worried about losing their own jobs.[78]

But there are a few trends likely to affect the relationship between workers and work over the long term:

Brainpower is key. The mass-production model and Frederick Winslow Taylor's "scientific management" methods that vaulted the U.S. to economic prominence had been based on certain assumptions about the capability and roles of workers:

> In the late nineteenth century the country had begun to experience the greatest wave of immigration that the world had ever seen...Most of these immigrants were desperately poor; most could not speak English; and few could claim to be more than semiliterate in any language. Thus the industrial system was designed around workers who were presumed to have very few intellectual skills...they needed to be able to follow simple written and oral instructions...and to do simple arithmetic. Mainly, though, the system required obedience and discipline.[79]

The Taylor model created a stark division of labor: management to do the thinking, workers to do the doing. Taylor said that workers "were not supposed to think, that there were other people to do the thinking around here."[80] Even without being required to think, workers were able to achieve dramatic productivity improvements as a result of the economies permitted by mass production.

Now, however, economic success is defined not by static efficiency but by "adaptive efficiency—the ability of institutions to promote innovation, learning and productive change."[81]

Intense competition and segmented consumer markets require customized production (including "production" of services). Most management experts agree that companies wishing to be competitive in this environment need a "high-performance workplace" characterized by team organization, cross-training of employees, state-of-the-art technology, and quality-improvement processes led by workers. **High-order knowledge and problem-solving skills are required in these high-performance work organizations.**

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78 *Inc., Special Issue: The State of Small Business,* May 21, 1996.
79 Ray Marshall and Marc Tucker, *op. cit.,* p. 5.
80 *Ibid.*
81 Douglass North, quoted by Joseph Cortright, "Learning to Compete Again," *op. cit.,* p. 33.

Keeping up-to-date will be an increasing challenge as the pace of innovation accelerates. As computers and telecommunications increasingly dominate production and products, the average age of the nation's capital stock has declined significantly. The rapid turnover of this capital stock, and the concepts embodied in it, mean that workers now must continually upgrade their technical, communication, analytical and problem-solving skills.[82] Adaptability has become more important.[83]

In the knowledge economy, increased education has a dramatic effect on productivity. A recent federally-sponsored study recently found that a 10 percent increase in the education of all workers in an establishment (equivalent to about another year of schooling per person) resulted in an 8.6 percent increase in productivity, whereas a 10 percent increase in the value of capital stock yielded only a 3.4 percent increase in productivity.[84]

The earnings premium for education is increasing. College graduates in the U.S. can now expect to earn $600,000 more over their lifetimes than those with only high school education.[85] The monetary value of a college degree doubled among younger workers during the 1980s, while the real wages of less-educated and lower-paid workers declined.[86]

Good-paying jobs that don't require skills are disappearing. When their jobs are eliminated by foreign competition or technological advances, people with marketing, managerial, sales and technical skills tend to find new jobs at good pay. Factory workers, on the other hand, usually end up in jobs that pay 20 percent less on average than their old jobs.[87]

Workers and skills are in short supply. The slow growth of the U.S. population and its aging will both affect the labor force. The slowdown in U.S. population growth will mean that the potential rate of growth of the labor force will be constrained. Female labor force participation is approaching that of males, so the size of the labor force won't be boosted by a large new pool of entrants, as was the case between 1960 and 1990.[88]

The U.S. has traditionally looked to young people to revitalize its work force. But there won't be enough young new entrants to the labor force each year to

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82 Greenspan, *op. cit.*, p. 39.

83 Rick Krueger, testimony to committee, December 20, 1994.

84 National Center on the Educational Quality of the Workforce, *The Other Shoe: Education's Contribution to the Productivity of Establishments*, (A Second Round of Findings from the EQW National Employer Survey), 1995, p. 2.

85 Minnesota Private College Research Foundation, *Great Expectations: Employment Issues and Trends for Young College Graduates*, January 1996, pp. 5-6.

86 "Working Under Different Rules," *Ford Foundation REPORT*, Spring 1994, pp. 22-25.

87 "Out One Door and In Another,"*op. cit.* p. 41.

88 Reinhardt, *op. cit.*

carry the responsibility of upgrading. If the skills of the older work force are allowed to get rusty, the entire economy will feel the effects. Policymakers will be faced with the challenge of retraining and revitalizing an aging labor force.

Fewer private-sector workers are unionized. Union membership among private-industry private and government employees has fallen 6 percent nationally since 1983, to 11 percent of the work force. That level is the lowest since the Great Depression. (Union membership among government employees, on the other hand grew 23 percent in the same time period.)[89]

Decline of unions is one explanation for some apparent widening of wage inequality in the U.S. overall. During the immediate postwar years, unions were successful in having the benefits of productivity improvements shared widely, even among lower-skilled and less-educated workers. According to one estimate, de-unionization caused at least 20 percent of the increase in the wage disparity among men aged 25 to 64, including service workers, during the 1980s.[90]

Demands on the public safety net are intensifying

The employer-provided safety net is shrinking, and competitive pressures are not likely to reverse the trend easily. And several of the economic trends described above will increase the need for safety nets.

At the same time, however, the public sector is facing rising demographically-driven demand for pensions, old-age care, corrections and schooling. An enormous amount of U.S. public spending is devoted to health and other long-term care services for the "very-old" population, aged 85 and older, and it is this population group where life expectancy is gaining the fastest (Reinhardt). Public budgets are feeling the pressure, since the revenues needed to pay for public services are growing more slowly than they did in the post-war period.

Saving and investment has declined in the U.S.

Productivity improvement is the only non-inflationary way to increase incomes and improve living standards over the long run. The amount of investment in plant and equipment, infrastructure, technology and human capital is an important determinant of the rate of productivity growth. In turn, the rate of investment is determined by the rate of saving.

89 "Why America Needs Unions, But Not The Kind It Has," *op. cit.,* p. 70.
90 *Ibid*, p. 74.

While other nations have been investing aggressively and strategically in economic growth, here in the U.S. individuals, companies and government itself have been investing less.

- **America's national savings rate is now among the lowest of the developed world.** National saving includes federal, state and local "saving" in the form of budget surpluses and investments in infrastructure; the low national savings rate is partly explained by the persistent budget deficits at the federal level and declining spending on infrastructure.

  Low national saving is also a result of low personal saving by individuals, however. Americans saved just 4.4 percent of what they earned in 1995, spending about 94 cents of every dollar, only half of that on food, clothing, housing and medical care.[91]

  Counting all forms of savings, including pension funds and home equity, Americans save about 15 percent of GDP. Both figures are at least 50 percent below the rate of 50 years ago.[92]

  The low rate of national savings has been reflected in lower investment and a growing dependence on foreign capital to finance domestic investment.[93]

- **American firms are reinvesting a far smaller percentage of revenues and profits than they did 15 years ago.** The tendency of U.S. firms to under-invest stems partly from their preoccupation with high returns on investment.[94]

- The U.S. is still the leading spender on R&D, spending more than all industrial sectors of the European Union combined, and accounting for 44 percent of all R&D spending by industrialized countries. But the U.S. share has declined over the past 20 years. During the 1990s, **industry spending on R&D was flat (after adjusting for inflation) and federal funding declined.**[95]

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91 Minnesota Private College Research Foundation, *Minnesota Private College Review,* May 1996.

92 Robert H. Hayes, "U.S. Competitiveness: 'Resurgence' versus Reality," *Challenge,* March-April 1996, p. 41.

93 U.S. General Accounting Office, *Prompt Action Needed to Avert Long-Term Damage to the Economy,* GAO/OCG-92-2, 1992, p. 55.

94 Robert H. Hayes, *op. cit.,* p. 40.

95 National Science Foundation, NSF PR 96-22, May 20, 1996.

- **Public-sector spending on infrastructure has declined to less than half (as a percentage of GNP) its level of 30 years ago.**[96]

- **U.S. investment overall**—including private plant and equipment, public infrastructure, public and private R&D, and counting public and private education—has **declined 25 percent in the last two decades.**[97]

Other countries, especially Asian countries, are far outpacing the U.S. in saving and investment. An OECD analysis of seven developed nations (Australia, Canada, France, Germany, Italy and the U.K.) found that the U.S. was the lowest by far in both national savings and productivity growth between 1960 and 1988. Japan far surpassed the other nations studied on both measures.[98]

In some cases, abundant public investment reflects an explicit national commitment to positioning the countries as economic players—*as nations,* not simply on behalf of individuals and firms. Fallows observed that in the Asian model, the purpose of the economy is to increase the collective national strength. "Ideally, the goal is to make the nation independent and self-sufficient, so it does not rely on outsiders for its survival," Fallows explains, adding that "the...Asian-style goal is basically political, and comes from the long experience of being oppressed by people with stronger economies and technologies.[99]

Economists disagree about whether to be alarmed about the trends. Robert Samuelson, for instance, notes that the superior efficiency of American investment means that we can spend more of our current incomes on consumption without damaging our long-run productivity.[100] Most, however, say that faltering saving and investment pose a significant threat to future living standards. The U.S. General Accounting Office concluded that "there is little reason to doubt that a rise in the U.S. savings rate will yield significant productivity gains over a span of a few decades."[101]

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96 Robert H. Hayes, *op. cit.,* p. 40.
97 *Ibid.*
98 OECD, cited in GAO, *op. cit.*
99 James Fallows, *op. cit.,* p. 208.
100 Robert J. Samuelson, "Is There a Savings Gap?," *Newsweek,* June 17, 1996, p. 56.
101 GAO, *op. cit.*

Summing up: The End of an Era

The conditions that fueled America's unprecedented 40-year stretch of prosperity have changed. Knowledge, not natural resources, is the key strategic resource. Competition is fierce. Competitive advantage is created, not inherited by virtue of natural resources. And because of the recent tendency to spend rather than save, the U.S. may now find itself less well prepared than some of its global neighbors.

This is the backdrop to the Greater Twin Cities region, as it contemplates how best to ensure a prosperous future. Neither government, nor companies, nor individuals are likely to be able to alter these forces.

City Regions in the Global Economy

People commonly speak of the "U.S. economy" or the "Japanese economy" or the "Mexican economy." Throughout history, however, economies have seldom respected political boundaries. The most appropriate unit for understanding economic activity is the region, usually sub-national in scope. The "U.S. economy" is really a collection of regional economies, with urban economies—such as today's New York-New Jersey-Connecticut metro economy, the Seattle-Tacoma metro economy and the greater Twin Cities regional economy—acting as the engines of economic growth.[102]

Nation-states have always mattered for political reasons, of course. National governments make choices about the degree of authority they will exercise over their economies, and influence the performance of their economies through their macroeconomic and fiscal policies. National governments also make choices about how open they will allow their economies to be to international trade. Throughout U.S. history there have been periods of greater and lesser openness and more and less active federal intervention.[103]

With the liberalization of trade via the North American Free Trade Agreement (NAFTA) and the most recent round of the General Agreement on Tariffs and Trade (GATT), nations have accepted constraints on their prerogative to protect the less competitive sectors of their economies, and thus are voluntarily becoming a lesser factor in the global economy.[104] It is important to remember, however, that there is nothing inevitable about this trend. As history writer Frederic Smoler cautions:

> In the end nation-states can still limit and give form to economies; it is a fantasy, either utopian or dystopian, to assume otherwise. An open and truly international economic order—and the wealth it creates—is a political achievement, not an achievement against politics. The world economy is not a machine that will run itself; it must be defended through politics, the same means through which

102 See: Jane Jacobs, *Cities and The Wealth of Nations,* New York: Random House, 1984.
103 Fredric Smoler, "The History of Globalization," *Audacity,* Fall 1996, p. 3.
104 *Ibid.*, p. 2.

it was created, and through which it is again, as always, under attack.[105]

In the current discussions about "globalization," it's not uncommon to hear references to countries competing against one another in the world marketplace. At least for now, with nation-states having adopted a lesser role for themselves, the notion that nations are "slugging it out against rivals in global markets," in Krugman's words, is less true than it has been.

The old theory of comparative advantage, one implication of which was that nations were destined by their natural resources, has become obsolete. Companies are no longer limited by the natural resources available in their home countries, but—thanks to advanced technology, instantaneous communication and improved transportation—can obtain the resources and skills they need from anywhere.[106]

The firm's perspective

The committee was influenced in its deliberations by the work of Harvard professor Michael Porter, who has studied the factors that influence firm competitiveness.

According to Porter, **companies that want to stay competitive in today's political, economic and social environment must constantly upgrade—innovating and finding specialized advantages that are unique and hard for competitors to replicate.**[107] Competitiveness occurs in local clusters of firms in related industries, Porter says. This "industry cluster" phenomenon can be seen in the entertainment industry in Los Angeles; the software industry in California's Silicon Valley, the publishing industry in New York City, the automobile industry in Detroit, and the carpet industry in Dalton, Georgia.

Some observers of the "global economy" have gone so far as to claim that location no longer matters. It is true that companies are disaggregating functions—pulling apart headquarters, R&D, back-office operations, and manufacturing—and evaluating more carefully what location is the most hospitable for any particular function. And companies are less bound to a specific location than they used to be.

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105 Smoler, *op. cit.*
106 Porter, *op. cit.*, p. 9.
107 *Ibid.*, pp. 10, 12.

Nevertheless, the sources of a company's advantage are inherently local, according to Porter:

> Innovation and upgrading depend on specialized local conditions that are not mobile—the critical masses of highly specialized and interconnected skills, applied technologies, competitors, suppliers, and supporting institutions unique to particular areas.[108]

The company's home base—the community where it conducts research on products and develops its competitive strategy—is especially critical to its competitiveness, Porter says.[109] The local conditions that spur a firm to innovate and thus compete successfully, according to Porter, include demanding local customers; the availability of *specialized* factors of production; a network of suppliers and related industries; and intense local rivalry among competing firms in the industry.

State and local governments are becoming more influential

At the margin, the *local* environment determines how competitive the firm will be. As one observer stressed, "the core competencies for creating the future are ultimately at the command of the local community."[110]

Governments at the state, regional and local level are having greater influence on the development of the competencies needed for regional competitiveness.

Public capital is becoming increasingly important to state business growth.[111] Past research generally showed that higher state and local taxes discourage businesses from locating in an area and inhibit economic activity.[112]

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108 *Ibid.*

109 *Ibid.*, p. 10.

110 Andrea Gabor, "Rochester Focuses: A Community's Core Competence," *Harvard Business Review*, July-August 1991, p. 126.

111 Munnell, cited by Timothy Bartik, *Who Benefits from State and Local Economic Development Policies?* Kalamazoo, MI: The W.E. Upjohn Institute for Employment Research, 1991, p. 48. Bartik reviewed all published and unpublished empirical studies on taxes and economic development conducted since 1979. He examined economic development policies that provided *direct* assistance to businesses, including cash (or equivalents such as tax subsidies) or services (such as training or information). He did not deal with policies related to education and other matters that *indirectly* affected economic development.

112 According to Bartik (p. 43): "The long-run elasticity of business activity with respect to state and local taxes appears to lie in the range of -0.1 to -0.6 for intermetropolitan or interstate business location decisions, and -1.0 to -3.0 for intrametropolitan business location decisions. That is, if a given small suburban jurisdiction within a metropolitan area raises its taxes by 10 percent, it can expect in the long run a reduction in its business

However, more recent studies show that the tax burden alone doesn't tell the whole story; *both* the level of taxation *and* the quantity and quality of public services matter.

More and better public services—especially education and improvements in public infrastructure—spur state or metropolitan area productivity and economic growth.[113] Some public infrastructure investments yield very high rates of return—up to 10 times the yield of typical private sector investments.[114]

How state and local governments are responding

How are state and local governments responding to globalization and heightened competitive pressures? We found that local governments are spending vast amounts on incentives to attract and retain businesses. They are spending more on trade promotion and other international activities. Some have created explicit strategies for developing their unique advantages, and some are reinventing the process of "economic development."

Local governments are engaging in bidding wars

Like private businesses, governments themselves are existing in a more competitive environment. Tax base and jobs, once firmly rooted to local communities, are more mobile, the result of downsizing of plants, improved efficiency and increasing portability of plant equipment, and, most important, the metamorphosis of capital from smokestacks to such intangibles as information and brainpower.[115] As economist Richard McKenzie pointed out, knowledge, good ideas and creativity are "the most flighty and elusive of all" capital.[116]

State and local governments have become competitors for the world's capital base, and the competition has become fierce and expensive. Cities and state governments are under increasing pressure to provide the best combination

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activity by from 10 to 30 percent. If an entire metropolitan area or state raises its taxes by 10 percent, the estimated long-run effect would be a reduction of business activity between 1 and 6 percent."

113 Transportation Research Board, National Research Council, "Objectives and Decision Criteria for Infrastructure Investment," *Research Results Digest*, Number 200, November 1994, p. 46.

114 National Cooperative Highway Research Program, cited in Transportation Research Board, *op. cit.*, p. 4.

115 Richard B. McKenzie, *Free to Move: The Economic Foundations of the States' Bidding War for Business*, Center of the American Experiment, December 4, 1993, p. 2, 4.

116 *Ibid.*

of public services and tax cost, or be outclassed by their rivals. One impact of the increasing mobility of firms has been an intensified attention by local governments to attracting and keeping businesses in their communities.

Since the 1980s, states and local governments within the U.S. have engaged in frequent and expensive bidding wars to attract and retain businesses. The bidding war was launched in 1976 when the city of New Stanton (Penn.) provided $71 million in incentives to attract a new Volkswagen assembly plant. That once-shocking figure pales in comparison with more recent incentive packages, including the $300 million United Airlines received to locate its aircraft maintenance base in Indianapolis; the $253 million of incentives provided to Mercedes-Benz to locate an auto assembly plant in Alabama; and the $240 million in "incentives" the State of Illinois provided to Sears to *not* relocate its corporate headquarters.[117]

At least half the states in the U.S. have enacted financial incentives to induce companies to locate, stay or expand in their states, according to a 1993 survey by the Arizona Department of Revenue.[118] Local governments employ a variety of tools in these bidding wars, including:

- revenue bond and general obligation bond financing;
- public-sector low-interest loans and loan guarantees for building construction, machinery and equipment;
- tax and other incentives to locate in distressed areas or for job creation;
- tax increment financing to write down land costs and assist with site improvements:
- equity investments.[119]

The bidding wars continue even though studies have shown that companies consider government-provided business incentives to be well down on their list of factors influencing location decisions. Companies consider an area's labor force, transportation, and access to markets to be much more important.[120]

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117 Office of the Legislative Auditor, State of Minnesota, *State Grant and Loan Programs for Business*, February 1996, p. 4.

118 Melvyn L. Burstein and Arthur J. Rolnick, "Congress Should End the Economic War Among the States," Federal Reserve Bank of Minneapolis 1994 Annual Report, p. 3.

119 Office of the Legislative Auditor, *op. cit.;* and Eric Wieffering and Lee Schafer, "The New Venture Capitalists—Taxpayers," *Corporate Report*, August 1993, p. 24-34.

120 Office of the Legislative Auditor, *op. cit.*, pp. 7, 8.

Economists generally agree that such incentives are inefficient and inequitable when viewed from the perspective of the economy as a whole:

- **Public spending on infrastructure does not produce much benefit when used as a location enticement in isolation from other development strategy.** A strategy of "build it and they will come" doesn't often yield good results. Even the best of these infrastructure investments cost more than they produce in economic gain to the targeted area.[121] Nevertheless, 87 percent of infrastructure investment appraisals reviewed in a 1990 study stated that distributional objectives—attracting business to a certain location—were the projects' principal economic purpose.[122]

- **Business incentives have little effect on state employment growth.**[123]

- **Competition for businesses is worse than a zero-sum game—it is a negative-sum game,** according to Minneapolis Federal Reserve Bank economist Arthur Rolnick. The money that states spend on enticements reduces the amount of money available for other public services (such as schools and transit), he points out. The revenues spent by the states that lose in the competition must be greater than the revenue the winning states gain—because, as Rolnick notes, "if this were not true, businesses would not have relocated."[124]

  In a follow-up analysis, Rolnick's colleague Thomas J. Holmes created a simple model to illustrate the potential benefits of a prohibition on interstate competition for development. While cautioning against generalizing the results of his analysis, Holmes found that the policy would increase total tax revenues that finance public spending, would result in more efficient locations of plants, and would reduce the "deadweight loss" of taxation (that is, the loss to the economy that results when decisions are distorted by unequal tax distribution).[125]

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121 National Cooperative Highway Research Program, cited in Transportation Research Board, *op. cit.*, p. 4.

122 *Ibid.*

123 Council of State Governments, 1986, cited in: Office of the Legislative Auditor, *op. cit.*, p. 8.

124 Burstein and Rolnick, *op. cit.*, p. 7.

125 Thomas J. Holmes, "Analyzing a Proposal to Ban State Tax Breaks to Businesses," *Quarterly Review*, Federal Reserve Bank of Minneapolis, Spring 1995, p. 38.

- **Public-sector location incentives give unfair competitive advantage to new and relocating firms,** and put already established businesses at a disadvantage.[126]

States and municipalities express dismay with the degree of competition for development, but various attempts to curb it have failed.[127] Despite the costliness of these programs, few local governments are willing to take the political risk of unilateral disarmament. *Corporate Report* editor Terry Fiedler wryly summed up the dilemma: "There's a term for executives who have ignored the fierce bidding war for business among municipalities—fools."[128]

In response to all these public-sector incentives, firms no longer make location decisions quietly, but broadcast their intentions with the hope that government officials will offer such deals.[129] The practice has spawned a new breed of entrepreneur, whose job is to shop and broker development deals.[130]

Some business people also view the incentives as bad for the economy, but they, too, are unwilling to eschew the practice alone. One business owner interviewed by *Corporate Report* said that he had no misgivings about accepting the incentives. "States and cities put you in that position. You have no choice but to go and find the best deals you can."[131]

More spending, activity on trade and economic development

State and local governments are taking more initiative to meet the challenges of global economy.

Spending by local governments on international trade activities has grown dramatically. In the late 1970s, states began to realize the opportunity that foreign trade represented. In less than a decade states tripled their spending on international activities to an average of roughly $1 million per year.[132]

Now, every U.S. city with population over 300,000 has some kind of international trade promotion initiative. Several, including Cleveland,

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126 Edward G. Goetz and Terrence Kayser, "Competition and Cooperation in Economic Development: A Study of the Twin Cities Metropolitan Area," *Economic Development Quarterly*, February 1193, p. 64.
127 Wieffering and Schafer, *op. cit.*, p. 26.
128 Fiedler, Terry, "Bidding For Business," *Corporate Report*, August 1995, p. 4.
129 R. McKenzie, *op. cit.*, p. 10.
130 Wieffering and Schafer, *op. cit.*, pp. 24-25.
131 *Ibid.*, p. 27.
132 John Kline, *op. cit.*, p. 29.

Seattle, Detroit and Dade County (Fla.), spend more than $500,000 per year on international economic development.[133]

Strategies

Some state and local governments and communities, like industries, are focusing on developing specialized advantages—collections of skills and other resources that are uniquely tied to their places. **States and urban regions are increasingly adopting explicit strategies** for developing competitive advantages in their key industries or unique roles for themselves in the global economy. The rationale for such strategies appears to be that because most urban regions in the U.S. have good general infrastructure and education, just spending more on these general factors is not likely to confer substantial advantage on a metro area.

Some city-regions have positioned themselves as domestic **gateways** to important international markets—Seattle to the Asian rim, Miami to Latin America, Lyons (France) as a bridge city between the Mediterranean and northern European economies.[134]

Others have focused on **key industries.** For example, Rochester (N.Y.) has chosen to build its future on the high technology skills of its residents and "to make relentless quality in optics and imaging the core competencies of the region."[135] The State of Oregon has developed a comprehensive strategy that, among other goals, involves business leaders in efforts strengthen the region's leadership in forest products, metals, producer services, plastics, software, biotechnology and several other key industries.[136]

Other city regions have consciously focused on developing certain **core competencies** that cross industries. Rosabeth Moss Kanter has described, for example, the efforts of the Spartanburg-Greenville (South Carolina) region to develop world-class competence in manufacturing—in a wide variety of industries including textiles, computers and other high-technology products, metalworking, plastics and automotive.[137]

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133 HITS, *op. cit.*, p. 2.

134 Peter Karl Kresl, "Urban Reponses to Structural Change in the Global Economy: Trade and Technology," unpublished paper, Bucknell University, March 1995; and Rosabeth Moss Kanter, *World Class: Thriving Locally in the Global Economy*, New York: Simon & Schuster, 1995.

135 Gabor, *op. cit.*, p. 117.

136 State of Oregon, *Oregon Shines: An Economic Strategy for the Pacific Century*, May 1989.

137 Kanter, *op. cit.*, p. 244.

The idea of what constitutes "economic development" is changing

Some states and regions are adopting strategies and techniques that signal a shift in thinking about what "economic development" is and should be. So-called "Third Wave" economic development approaches focus not on competing for development, but on developing the long-term competitiveness of the state or region. And "competitiveness" is viewed broadly—in terms of superior productivity performance, and the ability of an area to produce, under free and fair market conditions, goods and services that meet the test of international markets while expanding citizens' real incomes.[138]

Joseph Cortright, executive officer of Oregon's Joint Legislative Committee on Trade and Economic Development, argues that "too few government efforts have addressed competitiveness." Government has provided subsidies or lowered the cost of doing business, but "subsidies don't make firms competitive," Cortright says.[139]

Cortright and other "Third Wave" proponents argue that government programs should instead focus on the ability of firms to compete successfully in the marketplace by making better and more innovative products, and by making them in a more timely way.[140]

State and local governments that view firm competitiveness as the core concern for local development are experimenting with new roles and techniques. Traditionally, governments have fulfilled their economic development roles by delivering services, but "the Third Wave looks to market enhancement and market building as the initial path to effective implementation."[141] Public agencies are "discovering the need to act more as facilitators, brokers and seed capitalists."[142]

Local communities need new networks and a new institutional context for "doing" economic development, according to Robert Howard, associate editor of *Harvard Business Review.* State government, trade associations, labor

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138 Report of the President's Commission on Competitiveness, 1984, cited in: Stephen S. Cohen, "Speaking Freely," *Foreign Affairs*, July-August 1994, p. 195.

139 Joseph Cortright, "Reinventing Economic Development: Ten Ideas for Market-Driven Approaches to Promoting Industrial Competitiveness," Staff Report to the Joint Legislative Committee on Trade and Economic Development, State of Oregon, October 1994, p. 12.

140 *Ibid.*

141 Ross and Friedman, *op. cit.*

142 *Ibid.*

unions, and other community groups all are important in creating an infrastructure that nurtures continual innovation.[143]

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143 Dan Pilcher, "The Third Wave of Economic Development," *State Legislatures,* November 1991, p. 35.

Compete Globally,
Thrive Locally

What the Public Sector Should Do
To Help the Greater Twin Cities Region Prosper

The Greater Twin Cities Region: Is Everything Above Average?

The Good News

Just as the U.S. has become accustomed to being on top of the world, Minnesota—and especially the greater Twin Cities region—has become accustomed to being, in many respects, on top of the U.S.[144]

The greater Twin Cities region is renowned for an economy that has remained vibrant even when other U.S. urban areas seemed to be in the death grips of decline. Just last year, the Citizens League of Greater Cleveland rated the Twin Cities' economy best among the fourteen major metropolitan areas it studied.

But what has made the Twin Cities remarkable is that the area's prosperity has continued unabated since the late 1800s. And the economic prosperity has been accompanied by a quality of life that has frequently been ranked among the best in the U.S.

Today, the good news includes:

- Minnesota's **Gross State Product** (GSP) grew 79 percent (nominal) between 1982 and 1990, compared with 74.9 percent for the U.S.[145]

- Minnesota's real per-capita personal **income** rose from $11,920 in 1975 to $14,560 in 1992, an increase of 3.1 percent, compared with 1.9 percent growth for the U.S.[146]

- Minnesota's non-farm **employment** increased 452,348 between 1983 and 1992, an increase of 27 percent—one-third faster than the U.S. rate.[147]

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144 Understanding the economies of urban regions isn't always easy to do, because most available data are compiled by political jurisdictions (nation, state, city, county), which do not necessarily correspond to the boundaries of the economic region. This report uses statistical information for the state of Minnesota and for the metropolitan region which, except where noted, is defined as the seven-county metropolitan area under the jurisdiction of the Metropolitan Council. Those seven counties are Hennepin, Ramsey, Carver, Scott, Dakota, Washington, and Anoka. The U.S. Census defines the Twin Cities metropolitan statistical area (MSA) to include thirteen counties, which in addition to the seven above include Wright, Chisago, Sherburne and Isanti counties in Minnesota and St. Croix and Pierce Counties in Wisconsin .

145 *Compare Minnesota 1994-95*, p. 24.

146 *Ibid.*, p. 17. (Expressed in 1982-84 dollars.)

- Average annual **unemployment** in Minnesota was consistently below the national average between 1983 and 1992.[148] Minnesota's unemployment rate in 1994 was one of the lowest in the nation.[149] The Twin Cities' unemployment rate, generally well below national and state levels, declined to 3.2 percent in 1994, its lowest point since 1978.[150]

- Minneapolis' 1992 **standard of living** was sixth highest among the 20 largest metropolitan areas in the U.S. that responded to the Cost of Living Index survey.[151] The Twin Cities ranked first in home affordability (1993) and its health-care costs were fourth-lowest in the survey.[152]

- The seven-county **Twin Cities region's per capita income** in 1993 ($24,145) was sixth among the 25 largest metropolitan areas in the U.S.[153]

- The seven-county **Twin Cities region's poverty rate** of 8.1 percent in 1989 was also relatively low compared with other large metropolitan areas, although poverty rates in the core of the region and among minorities were worse than those of other metropolitan areas.[154]

The diversity of the Minnesota economy shields the state and region from major dislocations and large cyclical swings. Minnesota has the sixth-most diversified economy in the U.S., meaning that the mix of industries closely parallels the national average, with 21.8 percent of GSP in manufacturing, 17.2 percent in services, and 16.7 percent in finance. The composition of the Twin Cities economy is very similar to the Minnesota mix. Because of this diverse composition, recessions in Minnesota tend to be shorter and less severe than in many metropolitan areas.[155]

The metropolitan region has shown a remarkable ability to slough off dying industries and grow new ones, from lumber milling to grain milling to computer hardware to medical devices[156]. An annual *St. Paul Pioneer Press* survey of the state's largest publicly-held companies has revealed a great deal

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147 *Ibid.*, p. 25.
148 *Ibid.*, p. 73.
149 Abigail McKenzie, testimony to committee, September 20, 1994.
150 Bill Byers, testimony to committee, September 20, 1994, and Metropolitan Council, *The Twin Cities Economy in Profile*, June 1995, p. 9.
151 Standard of living is calculated by using the median household effective buying income adjusted for cost of living.
152 *Compare Minnesota 1994-95*, pp. 134, 135.
153 Metropolitan Council, *The Twin Cities Economy in Profile, op. cit.*, p. 10.
154 *Ibid.*, and Regan Carlson, "Income Distribution in the Metropolitan Area," *1994 Economic Report to the Governor*, p. 30.
155 A. McKenzie and Byers, *op. cit.*
156 Robert Holt, testimony to committee, January 10, 1995.

of turnover, with newcomers "constantly rocketing up to replace companies that leave the list."[157]

Jobs and industries are created and destroyed quickly in the Twin Cities; the churning creates a need for more safety nets, but the fast pace of change seems to have contributed to the overall upward climb in the region's prosperity.[158]

Minnesota's labor force participation rate is very high.[159] The participation rates for women and teens are among the highest in the U.S.[160] The metropolitan area's participation rate in 1993 was 77.0, compared with 66.2 percent for the U.S. The rate for Twin Cities' women (70.7 percent) is almost 13 percentage points above the national average of 57.9 percent.[161]

The Twin Cities region is home to several industries that are national and global leaders. Four industry clusters account for about 12 percent of total employment in Minnesota. The state has the highest concentration of **printing and publishing** employment in the nation, with total employment of 53,000 and payroll of $1.3 billion in 1,700 establishments. The Twin Cities area ranks fifth among America's printing cities, behind Chicago, Los Angeles, New York and Philadelphia.

Minnesota ranks fourth in the nation in the number of **software** companies (after California, Washington, and Massachusetts), with 1,600 firms employing 20,000 people and providing $769 million in wages. The state's concentration of employment in **medical device manufacturing** is second highest in the country. In 1992, the medical instruments and supplies industry employed 13,581 people, and the average weekly local wage was 7 percent higher than the national average for the industry. While the concentration of employment in Minnesota's **machinery and metalworking** industries is no higher than average, this cluster exports the highest percentage of its output (78 percent) of any of the clusters examined in the Metropolitan Council's 1995 study.

Other important industries in the state include financial services, insurance and real estate; professional services; and arts and entertainment. All seven industries together account for 25 percent of total Twin Cities employment.[162]

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157 David Beal, "Creative Destruction: The Underlying Force in the Area's Economic Turbulence," *The Region*, September 1991, p. 5.

158 *Ibid.*

159 The labor force participation rate is the percentage of the working age population in the labor force. The labor force is defined as persons at least 16 years old who are employed or unemployed and looking for work.

160 *1994 Economic Report to the Governor*, Table 7.

161 Metropolitan Council, *The Twin Cities Economy in Profile*, June 1995, p. 9.

162 Lee Munnich and Bill Byers, testimony to committee, January 31, 1995.

It should be noted also that the greater Twin Cities region is home to a plethora of not-for-profit organizations. While the Metropolitan Council's study of industry clusters in the region focused on for-profit businesses, it is doubtless true that some of the region's important industry clusters—arts and entertainment, for example, reflect significant contributions from not-for-profits, including some world-class enterprises. The region also is home base for several globally-oriented not-for-profits such as Global Health Ministries, American Refugee Committee, and Lutheran World Relief, which has its warehouse here for shipment of goods overseas.

The metropolitan area has an unusually high concentration of corporate headquarters. The Twin Cities region is home to 17 Fortune 500 manufacturing headquarters, 14 Fortune Service 500 headquarters, and 9 Fortune 400 privately-held headquarters.[163] These headquarters businesses, including several that are national leaders in their industries, have generated high-paying jobs, provided generous philanthropic support and community leadership, and incubated countless entrepreneurial spinoffs.

What are the roots of our prosperity?

This is the generally positive picture we see today. What explains the greater Twin Cities region's apparent good fortune? Why have some factors succeeded here but not elsewhere, or vice versa? These questions are easier asked than answered. There is little definitive statistical analysis about what explains economic success in general, or the unique factors in the Twin Cities' success.

Some factors might include the Twin Cities' "place" on the Upper Midwest map, the role of the University, the region's superior work force, and a historic attention to maintaining community. The following sections offer a closer look at these explanations.

Our "place" on the map

Geographer John Borchert told the committee a story about once flying home from a business trip via the polar route. As the plane made its way over the frozen, barren expanse, and the lights of the Twin Cities suddenly appeared, the colleague with whom Borchert was traveling—a stranger to the Twin Cities—exclaimed "but why is it here?"

That improbable location has been a historical advantage. The Twin Cities region is unusual in serving as the commercial center for a large multi-state

163 Bill Byers, testimony of September 20, 1994.

region stretching from Michigan's Upper Peninsula to the Rocky Mountains in Montana. The railroads defined the economic geography of this Upper Midwest region.[164] The modern steel rail era began in 1870 and within a decade, the U.S. had laid the entire network of railroads east of the Mississippi and north of the Mason-Dixon line, making a "northwest empire" possible.

Major commercial centers developed where the rail lines and navigable waterways met: Chicago, Milwaukee, St. Paul, Kansas City, San Francisco, San Diego and Los Angeles. This geometry set a pattern for a transcontinental rail system, and one of the system's major corridors ran from Minneapolis and St. Paul westward. The geometry also defined a region centered here and extending halfway in either direction to Milwaukee, Chicago, Kansas City, Denver and Seattle.

European immigration helped swell the population of the Upper Midwest region from 400,000 in 1870 to five million in 1920. The Twin Cities were ideally situated to absorb the new residents. According to John Adams:

> The cities were poised at the westernmost outpost of settlement during the mass European emigrations of 1880-1920, and they were developing just at the moment when railroad, mail and telegraph services had improved to the point that major centers could be located much farther apart and still meet promptly and completely the needs of the regions they served. As a result, as settlement expanded, no major city was established west of the Twin Cities to challenge their domination of the Upper Midwest. As the primary providers of services to a booming hinterland, the Twin Cities amassed a concentration of resources—entrepreneurial skill, information, cash, and human capital—that by the 1920s coalesced to launch them toward success with a momentum that has yet to break.[165]

A great deal of economic growth and redistribution has occurred since 1920, and technologies from the telephone to the automobile have transformed society, but the essential geography of the Upper Midwest has not changed. The Upper Midwest region has added almost no new places to its map, and has subtracted surprisingly few.[166]

Today the Upper Midwest shares with parts of Australia and western Siberia the distinction of being one of the developed world's most sparsely populated

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164 John Borchert, testimony to committee, August 23, 1994.

165 John S. Adams and Barbara J. VanDrasek, *Minneapolis-St. Paul: People, Place and Public Life*, Minneapolis: University of Minnesota Press, 1992, p. 46.

166 Borchert, *op. cit.*

areas.[167] The borders of the Upper Midwest also approximate the Ninth Federal Reserve District, a "district with a difference:"

> The Minneapolis Fed territory's population density of just 18.5 people per square mile is easily the lowest for any of the Fed's 12 districts; the Kansas City district, at 27.3, is the only one that comes even close. Another characteristic that sets the Minneapolis district apart: The Twin Cities metro area's population is roughly 20 times that of the district's next largest metro area; runner-up metro areas in each of the other 11 districts have far larger populations.[168]

The wealth and population of the Upper Midwest have long been concentrated in a 35-county core based in the Twin Cities metropolitan area.[169] The greater Twin Cities region is unusual in being not only the largest urban area in the Upper Midwest but also the center for state government and the state's research University.

The Twin Cities have served as the "switchboard" for communications, a center for migration and commerce, and a draw for highly talented labor in the Upper Midwest. The metropolitan area has also provided a richness of practical ties between the wealthy and the poor, between cities and small towns and between this region and the rest of the world.[170]

The University of Minnesota

The University of Minnesota, created by land grant from the territorial legislature in 1851, is unusual in being located in the state's largest metropolitan area.[171]

The University of Minnesota is frequently cited for its historic contribution to the region's growth and vitality. The University's most visible impact has been in technology transfer. Examples of the University's remarkable achievements, which have profoundly affected the region's economic growth, include the development of rust-resistant strains of wheat, taconite processing, and cold-weather soybeans.[172]

The University has also housed centers of top-quality research and teaching in certain departments, which have provided the context for the development of the medical device and computer industries, for social

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167 Beal, *op. cit.* p. 8.
168 *Ibid.*, p. 9.
169 *Ibid.*
170 Borchert, *op. cit.*
171 Adams and VanDrasek, *op. cit.*, p. 156; and Holt, *op. cit.*
172 Holt, *op. cit.*

inventions such as metropolitan revenue sharing, and for the region's vibrant arts scene.[173]

The Metropolitan Council's 1995 study of the Twin Cities area's industry clusters elaborated on the relationship between the University and local industry innovators. The University of Minnesota's strong academic programs in electrical engineering and surgery combined to create the technology for medical devices, and the partnership now continues:

> Considered one of the better facilities for training in cardiology, surgery and heart surgery, the University attracted many of the top surgeons, particularly through the 1940s and 1950s. Physicians collaborating with local medical device manufacturers work in many local medical institutions, particularly the University of Minnesota Hospital, the Mayo Clinic, Abbott Northwestern Hospital, the Minneapolis Heart Institute and Gillette Children's Hospital. Cooperation between physicians and manufacturers extends across all phases of the product development cycle. Additionally, academic physicians at the University Medical School often seek the opportunity to test new devices in order to publish their findings.[174]

Joint efforts by the University, private firms and government have helped to establish Minnesota's leadership in high technology research and development.[175] The University's innovations in computers and other technical products, many produced in local businesses, have meant that the Twin Cities could more easily support post-industrial enterprises than such industrial cities as Cleveland and Milwaukee.[176]

Perhaps more important than its technology transfer role has been the University's role as a magnet for talented faculty and students. In the early part of the century, the University of Minnesota was the magnet for the "best and brightest" undergraduate students from throughout the Ninth Federal Reserve District.[177] Once graduated, these talented students tended to stay in the area, many taking jobs with major companies headquartered here. The critical mass of talent has helped to foster an environment of innovation and progress.

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173 Holt, *op. cit.*, and Metropolitan Council and University of Minnesota, *Twin Cities Industry Cluster Study*, July 1995.

174 *Twin Cities Industry Cluster Study, op. cit.*

175 Adams and VanDrasek, *op. cit.*, p. 50.

176 Anthony M. Orum, *City Building in America*, 1995, p. 190.

177 Holt, *op. cit.*, and Adams, testimony to committee, August 30, 1994.

The University has been "an enormous regional asset that contributes much to the region's standing in international science, engineering, education, medicine, and other fields."[178]

An educated work force

The greater Twin Cities region has historically boasted a well-educated population with a strong work ethic. Minnesota's high school graduation rate has long been one of the highest in the U.S.

Throughout its history, the Twin Cities region has been able to draw from a large and ready pool of workers from rural areas and small towns, as improvements in farm productivity freed these workers to pursue other jobs. Over a 50-year period starting in 1920, 700,000 people—mostly agricultural workers—moved from the rest of the Upper Midwest region to the Twin Cities. The farm population, by contrast, declined from 2 million to 200,000 today, and is likely to continue to decline.[179]

A high quality of life

The Twin Cities area's high quality of life and relative social harmony have provided a competitive advantage that has offset many of the region's disadvantages of location, weather and cost. The region has placed a high priority on the maintenance of community at various levels. There is a core of people, crossing all social strata, who live here and like it—an important factor in retaining talented individuals.[180]

The Twin Cities region's legacy of certain cultural values, rooted in its immigrant heritage, has encouraged innovation and entrepreneurship. Those values include a belief in the rewards of hard work, efficiency, knowledge and social justice.[181]

The commitment of several wealthy business families to the region over several generations also helps to account for the Twin Cities' prosperity and livability.[182] The Butler, Pillsbury, Ordway, Hill, Heffelfinger and Dayton families have contributed civic and political leadership and vast legacy of philanthropic giving.[183] These families and other prominent business

178 Adams and VanDrasek, *op. cit.*, p. 27.
179 Borchert, *op. cit.*
180 *Ibid.*
181 *Ibid.*
182 Orum, *op. cit.*, p. 189.
183 Adams and VanDrasek, *op. cit.* p. 44-45.

leaders have frequently spearheaded major community investments, including the revitalization of the downtowns and construction of museums, concert halls and colleges. Several of the region's major employers and their senior executives have consistently been national standard-setters in workplace policies, philanthropy and community citizenship.

Minnesota's early public servants, too, showed remarkable foresight in investing in public amenities that have distinguished the region for generations. For example, the Minneapolis Board of Park Commissioners acquired the land for today's Chain of Lakes Park, and dredged the swamp to produce Lake of the Isles, in 1883. Theodore Wirth oversaw the design of what would become today's Minneapolis park system during his tenure from 1905 to 1935—a period that saw World War I and the Great Depression.[184]

The region has also enjoyed a high degree of "civic engagement," active involvement of citizens in community life. This healthy civic tradition and pragmatic approach to public problem-solving have contributed to the state's consistently high rankings in national comparisons, earning Minnesota the label, "the state that works."[185]

The tradition of engagement has been reflected as well in Minnesota's politics and government. There is a strong grass-roots political tradition and voter participation rates have traditionally been among the highest in the country. Minnesotans have historically believed in the appropriateness of a government role in solving many problems. Taxpayers have traditionally shown an above-average willingness to provide tax dollars for education, infrastructure, parks, cultural activities, health care, environmental preservation and a host of other public services.

Minnesota has benefited in the past from certain "golden geese" that have allowed that unusually high level of spending on public services compared with other sparsely-populated states. These golden geese included the iron ore industry during the years between 1900 and the 1950s—which provided abundant revenues from out-of-state absentee owners—and the explosion in property tax base that occurred during the post-war suburban expansion from the 1950s to the 1970s.[186]

The political scientist Robert Putnam, in his studies of why some Italian city-states developed healthy democracies while others didn't, found that civic heritage held the key. It was the networks of "organized reciprocity and civic solidarity"—guilds, religious fraternities, mutual aid societies, neighborhood associations, and choral societies—that made the difference.

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184 *Ibid.*, p. 86.
185 Borchert, *op. cit.*
186 *Ibid.*

Apparently, these networks make working together easier, by fostering the trust that lubricates social life and economic transactions, providing useful information, and—perhaps most important—creating models of successful collaboration that could later be emulated for other purposes.[187] Putnam concludes:

> These [prosperous] communities did not become civic simply because they were rich. The historical record strongly suggests precisely the opposite: They have become rich because they were civic. The social capital embodied in norms and networks of civic engagement seems to be a precondition for economic development, as well as for effective government. Development economists, take note: civics matters.[188]

Putnam's research suggests that the greater **Twin Cities region's history of social harmony and civic-mindedness might not be accidental, or merely the happy result of sustained prosperity. Rather, the healthy social fabric might be one of the factors that has contributed to the region's economic good health.**

Of course, the degree of social harmony in the Twin Cities must not be overstated. It is partly explained by the region's relative racial and ethnic homogeneity, consensus being more easily achieved when peoples' differences are small.[189] Social and political consensus has sometimes been achieved partly by overlooking and excluding difference, and race discrimination, anti-Semitism and other forms of bigotry have sometimes marred the Twin Cities' seemingly harmonious past.

Too, "Minnesota Nice"—the well-known tendency to conceal and gloss over differences and disputes—may have occasionally prevented the region from confronting and resolving problems constructively. And the long-standing leadership of a cadre of wealthy families and businesses has meant that choices may not have reflected a "majority opinion" about what was best for the region.

Nevertheless, the fabric of values, beliefs and social ties generally produced a consensus, or at least what operated as consensus. One of the effects of this phenomenon was that "we didn't have to have a strategy, because we all agreed about what needed to be done," as one public affairs observer commented.

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187 Robert Putnam, "The Prosperous Community: Social Capital and Public Life," *The American Prospect*, Spring 1993, p. 36.

188 *Ibid.*, p. 37.

189 Adams and VanDrasek, *op. cit.* p. 19.

How Globalization and Other Trends Are Affecting the Twin Cities Region

Earlier in this report, we looked at globalization and several other "megatrends" that are affecting businesses, governments and individuals around the globe. In this section, we look more closely at the impact of the megatrends here at home. Briefly, we found that globalization and other trends are changing the "maps" and the relationships among the greater Twin Cities region, Upper Midwest, the rest of the U.S., and the world.

The next pages examine these findings in detail.

Changing "maps"

Globalization and other economic trends are changing the relationships between the greater Twin Cities region and the Upper Midwest, other U.S. metropolitan areas and the world. The map of the Upper Midwest hasn't changed, but what the places on the map mean in the global economy has.

Minnesota is increasingly connected to the global economy. While trade statistics give only a limited picture of the impact of globalization, they do show how the state's international business activity is increasing:

- Minnesota's total exports—including agricultural and manufacturing—grew from $5.56 billion in 1987 to $9.97 billion in 1993, an increase of 79.5 percent.[190]

- During the same time period, Minnesota's manufacturing exports more than doubled in 15 broad product categories, including stone, clay and glass products (401 percent growth); transportation equipment (200 percent); paper products (196 percent); scientific and measuring equipment (185 percent); fabricated metal products (170 percent) and printing and publishing (128 percent).[191]

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190 Census Bureau, Location of Exporter Series.

191 U.S. Department of Commerce, International Trade Administration, *Minnesota Export Facts*, June 1994. Data for the 13-county Minneapolis-St. Paul (MN-WI) metropolitan area.

- Minnesota's export-related employment increased as a percentage of total manufacturing employment from 6.1 percent in 1984 to 7.6 percent in 1987.[192]

- The number of foreign-owned manufacturing businesses in Minnesota grew from 165 in 1988 to 263 in 1991—a growth rate of 60 percent, compared with the U.S. growth rate of 52 percent.[193]

- Employment in the state's foreign-affiliated manufacturing establishments grew from 21,700 in 1988 to 35,200 in 1991.[194]

The Twin Cities metropolitan area ranked tenth nationally in 1994, with $8.9 billion in export sales.[195] The Twin Cities region is first in the nation in agricultural export sales and processed food export sales, and fifth nationally in measuring instruments sales.[196]

The globalization of the economy appears to be strengthening the greater Twin Cities region's role as the international hub of the Upper Midwest. Roughly half of all manufactured export sales in the Ninth Federal Reserve district—and about three-fourths of Minnesota's export sales—are in the Twin Cities metropolitan area.[197] **The western and southern portions of Hennepin County produced more than half the state's exports and export growth between 1987 and 1993**[198] **and concentrates the international business services for the Upper Midwest.**[199]

The Twin Cities also serve as an important regional center for exported services such as insurance and architectural and engineering consulting.[200] In addition, more than 300 greater Twin Cities companies provide support services that facilitate international trade, such as freight forwarding, banking, accounting and legal services.[201]

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192 Minnesota Department of Trade and Economic Development, *Minnesota Trade Statistics*, January 1994, p. 39.

193 Minnesota Department of Trade and Economic Development, Minnesota Trade Office, *Foreign Direct Investment in Minnesota Manufacturing: Trends, Impacts and Location Factors*, January 1995, p. 23.

194 *Ibid.*, p. 26.

195 *Minnesota Export Facts, op. cit.*

196 Census Bureau, Location of Exporter Series.

197 Hennepin International Trade Services (HITS), *Strategic Direction 1996-1998*, 1996, p. 12. These figures are estimates prepared by the Federal Reserve Bank of Minneapolis. Because a portion of the Twin Cities Metropolitan Statistical Area lies in western Wisconsin, care should be taken when comparing Twin Cities' exports with total Minnesota exports.

198 U.S. Census, Location of Exporter Series.

199 HITS, *op. cit.*, p. 4.

200 Most available trade data count only manufactured exports, omitting exported services.

201 Douglas Petty, testimony to committee, November 8, 1994.

Trade centers throughout the Upper Midwest—including Eau Claire, Fargo, Sioux Falls, the Red River Valley and Billings—have developed strong economies. Increased international ties among companies throughout the multi-state region have led the Upper Midwest's trade center cities to develop international business.[202] These companies often build their links to overseas companies through lawyers, accountants and other specialists based in the Twin Cities.[203]

In turn, businesses in the greater Twin Cities region continue to look to Chicago and other global "nerve center" metropolitan areas as the metro area's link to the global stage. For example, Chicago is the hub for most international cargo traffic from MSP because of its frequency of direct flights to a variety of international locations.

The Twin Cities region's economy has grown less dependent overall on its surrounding multi-state region, largely because of the strong growth in the Upper Midwest's other trade centers. Thirty-five percent of the Twin Cities' business came from the rest of the region in 1975, compared with 55 percent in 1925.[204]

The "real region" of the Twin Cities now extends well beyond the seven counties comprising the traditional definition of the urban region. The U.S. Census now defines the Twin Cities Metropolitan Statistical Area to include thirteen counties, including two in Wisconsin. But there are many linkages that suggest the "real" economic region extends considerably beyond even that 13-county border. For example, 39 percent of workers in LeSueur County commuted daily to the seven-county Twin Cities region in 1990; the share was 18 percent in Polk County (Wisconsin), 16 percent in Rice County and 15 percent in Mille Lacs County.[205]

Changes in production technology and other economic forces are pushing manufacturing jobs outward from the core of the Twin Cities metropolitan area. Between 1982 and 1992, Minnesota's industrial employment grew more than 23 percent in an eight-county cluster along Interstate 94 west of St. Cloud to within 40 miles of Fargo, and in a four-county area in southwestern Minnesota, which includes Marshall and Worthington. It is now possible to drive from the western edge of the Twin Cities northwest to Lake of the Woods and never be in a county that is losing industrial jobs.[206]

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202 Beal, *op. cit.*, p. 9.
203 *Ibid*, p. 10.
204 *Ibid*.
205 Metropolitan Council, *Growth Options for the Twin Cities Metropolitan Area: A Report to the Minnesota Legislature*, January 1996.
206 David Beal, testimony to committee, September 13, 1994.

The number of manufacturing jobs is declining in only 18 of Minnesota's 87 counties. In the seven-county Twin Cities area, Hennepin, Ramsey and Washington counties together lost 22,013 manufacturing jobs between 1988 and 1992, while the rest of the Twin Cities region and Greater Minnesota gained 24,871 jobs. The Chicago Federal Reserve found a similar pattern in the Lower Midwest, with rural counties' share of manufacturing employment growing and metro counties' share declining.[207]

The urban core can be expected to continue losing manufacturing jobs as these firms continue move out to suburban and rural locations. These forces are so strong that only significant departures from existing policies could bring manufacturing firms back to the core in sizable numbers.[208]

The U.S. trend toward advanced services is important for Minnesota and especially for the greater Twin Cities region. Minnesota enjoys a concentration of manufacturing *headquarters*, where a large share of jobs are focused on marketing, research, and other service functions, and a relatively smaller share of jobs are involved in production.[209]

Among the state's service industries, the second largest service industry (after health services), is business services, including advertising, credit reporting agencies, and computer software, programming and database services.[210] Minnesota's employment in finance, insurance and real estate grew 10 percent faster than the national average between 1983 and 1992.[211]

While economic forces seem to be driving manufacturing production away from urban areas, producer services and nonproduction manufacturing activities tend to be concentrated in large metropolitan areas.[212] In the seven-county region, the "business, engineering and miscellaneous services" industry group had the strongest job gains between 1983 and 1993.[213] The cities of Minneapolis and St. Paul had the highest proportion of people working in all service occupations in the seven-county area, and a higher proportion of professional and technical workers.[214]

There are several developments in transportation and communications technology and management likely to affect the greater Twin Cities region's historic locational advantages and disadvantages. A few examples:

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207 *Ibid.*
208 *Ibid.*
209 *Compare Minnesota 1994-1995*, p. 70.
210 A. McKenzie, *op. cit.*
211 *Compare Minnesota 1994-1995*, p. 25.
212 Testa, *op. cit.*
213 Metropolitan Council, *The Twin Cities Economy in Profile*, p. 5.
214 Regan Carlson, *op. cit.*, p. 36.

- **The evolution of the hubbing system in the U.S. airline industry—and the repercussions of the hubbing philosophy—has affected and will continue to affect the Twin Cities, which serves as the hub for Northwest Airlines.** Exactly what the costs and benefits are of being an airline hub are not clearly known, however.

  As the U.S. airline network evolved after deregulation, the cities that dominated the airline service hierarchy—hubs—enjoyed a competitive advantage over cities lower in the hierarchy.[215]

  Conventional wisdom today seems to be that a hub airport is a must for a city that wants a booming economy. And leaders from two of the Twin Cities region's key industry clusters—medical device manufacturing and printing and publishing—have said that the Northwest hub has been critical to the competitiveness of their industries.[216]

  However, national studies have shown that the benefits of a hub—better and more frequent flights and non-stop service—come at the cost of fares that are higher than at non-hub airports.[217] Fares tend to increase 19 percent to 27 percent once a dominant carrier captures 60 percent or more of the market.[218]

  At MSP, which is dominated to a greater extent than other hubs by its largest carrier, price premiums are significant. Analysts at Goldman Sachs reported that in 1994, average business fares rose 4 percent in the Twin Cities (where Northwest accounted for 76 percent of passenger enplanements) and 7 percent in Detroit (where Northwest's share was 74 percent).[219]

  By contrast, in Chicago, where there was more competition and where dominant United controlled only 47 percent of passenger enplanements, business fares decreased 17 percent. In Denver, where United controlled 60 percent of passengers and when Continental was also in the market, business fares dropped 24 percent. Since Continental exited the Denver market in spring of 1994, however, United's market share rose to 69

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215 Melissa Joy Loughlin, *Overseas Passenger Air Access at Minneapolis-St. Paul.* M.A. Thesis, Department of Geography, University of Minnesota, August 1994. See also: Irwin and Kasarda, 1991.

216 Metropolitan Council, *Twin Cities Industry Cluster Study, op. cit.*

217 Paul Farmer, testimony to committee, October 30, 1995.

218 "Under Siege: Major Airlines Find Their 'Fortress" Hubs Aren't Impenetrable,' *Wall Street Journal,* February 6, 1996.

219 Goldman Sachs U.S. Research, *Northwest Airlines Corporation/UAL Corporation,* January 4, 1995.

percent—and business fares increased 46 percent in the succeeding year.[220]

One explanation for the bigger fare increases at the Northwest hubs is that Northwest serves more lower-density markets—like Fargo—where low-cost competitors aren't as tempted to muscle in. But **Northwest's dominance of its hubs has clearly insulated it from fare competition,** their study concluded.[221]

The *Star Tribune* also reported that an analysis the paper commissioned found that air ticket prices at Minneapolis-St. Paul International Airport (MS) were 36 percent higher than the national average for similar flights, largely a result of MSP's domination by Northwest, which captured the bulk of the price premiums with $332 million.[222]

International air access, too, is influenced by airlines' hubbing strategies. Because domestic air service has become so widely available, *international air access* is what confers competitive advantage to cities today.[223]

As Northwest Airlines' second largest hub, Minneapolis-St. Paul is in direct competition with Detroit for service, and Detroit is becoming a surprisingly strong competitor, more a result of Northwest's hubbing strategy than the strength of its local market.[224] Detroit is second only to Chicago in the overall number of single-plane flights (domestic and international). Both Detroit and MSP gained an equal number of direct routes between 1990 and 1994, but Detroit's were all single-plane, while MSP's were not.[225]

Detroit actually surpasses Chicago in the breadth of international service available. While not surpassing such international gateways as Miami and San Francisco, Detroit has stronger international service than many cities having a more natural geographical advantage.[226]

- **The passage of NAFTA has implications for alternative north-south transportation corridors, especially in the western states** (Ford Runge, conversation with staff). Canada-U.S.-Mexico connections are likely to become more important, but long-distance transportation routes in the

220 *Ibid.*
221 *Ibid.*
222 "Study Says the Price of Twin Cities Flights Soars Above Average," *Star Tribune*, April 16, 1996.
223 Loughlin, *op. cit.*
224 *Ibid.*, p. 58.
225 *Ibid.*, p. 57.
226 *Ibid.*, p. 58.

Twin Cities (including international air destinations from MSP) have been primarily east-west in orientation.[227]

- **Advances in telecommunications are allowing businesses to locate away from urban centers, and to substitute electronic transmission for physical shipping.** Smaller growth centers in Greater Minnesota are becoming increasingly attractive for some businesses, liberated by advanced communications technology from being rooted in any particular place. These communities often offer lower occupation costs than costs in the Twin Cities, and the work force is well-prepared and motivated. For example, United HealthCare Corporation, headquartered in Minneapolis, has its claims-processing "back office" in International Falls, and Universal Pensions, Inc. services IRA accounts for more than 700 financial institutions nationwide from its facility in Brainerd.[228]

  Communications technologies may also diminish the cost advantage that the Twin Cities' central location in the U.S. has conferred until now.[229] In addition, telecommunications are substituting for a small but growing share of personal long-distance business travel and short-distance commuting, which will have implications for both airport and highway planning.

- **New information technologies will challenge existing governance structures.** The current structures are based on geography—state and national legislatures, city councils—but information technologies easily allow enterprises to cross jurisdictional boundaries. The change will alter the order of power, authority and control—and the revenue streams—in the affected systems.[230]

Business and government leaders and citizens do not have a shared understanding of how the greater Twin Cities region fits into the new global hierarchy of cities. Policymakers are for the most part unable to answer such important questions as: Does the Twin Cities area function as a regional capital city? If so, how specifically does the metropolitan economy relate to smaller cities in Greater Minnesota and the Upper Midwest to our mutual advantage globally? What are their and our key international linkages today? As a metropolitan region, is the Twin Cities competing with Chicago, Detroit, Atlanta, Mexico City, Hong Kong, St. Cloud, or Hudson, Wisconsin—or all of the above?

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227 *Ibid.*
228 William A. Blazar, "Satellite Cities," *Commentary*, Spring-Summer 1992, p. 25.
229 Metropolitan Council, *Twin Cities Industry Cluster Study.*
230 Joseph Graba, testimony to committee, December 20, 1994.

Changing labor market

Minnesota and the greater Twin Cities metropolitan area are already feeling the impact of globalization, technology advancement, and other trends on its labor market and workers.

There is no evidence of a general collapse in good-paying jobs or of a decline in the middle class.[231] **What is clear is that brainpower will be paramount: Minnesota's labor market is shifting in favor of higher-paying white-collar jobs that require advanced education.**[232] Occupations that require at least a four-year degree are projected to grow the fastest between 1993 and 2001. Forty percent of the total anticipated job growth in those eight years will be accounted for by professional/technical and managerial jobs.[233]

Meanwhile, of the net 43,000 new jobs created between 1990 and 1993 in Minnesota that pay at least $20,000 per year, only 19 percent (8,300) can be performed by a worker with less than one year of specific education, training or other preparation beyond high school.[234]

The earnings premium for a post-secondary education is increasing in Minnesota as elsewhere in the U.S. The inflation-adjusted income of young college graduates working full-time in Minnesota increased 16 percent for women and 6 percent for men, while average real income for high school graduates rose just 2 percent for women and fell nearly 10 percent for men.[235] Incomes for Minnesota's high school graduates were 86 percent of incomes for college graduates in 1979, but only 73 percent by 1989. And incomes for college graduates were higher than those for high-school graduates even in occupations the U.S. Department of Labor classifies as non-college jobs.[236]

It is not clear how the trends affecting *wages* are affecting the distribution of household *incomes* in Minnesota or the Twin Cities. (Wages account for only part of household income, which also includes income from assets and government transfer payments such as Social Security.)

Household incomes are distributed more uniformly in Minnesota than in the nation as a whole and the distribution of household incomes in Minnesota

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231 Don Hilber, "Labor Market Effects on Income Distribution," *1994 Economic Report to the Governor*, p. 43-49; and Dennis A. Ahlburg, Yong-Nam Song and Scott Leitz, *Are Good Jobs Disappearing?: Evidence for Minnesota from the 1990 Census*, Center for Urban and Regional Affairs, 1995.

232 Don Hilber, *op. cit.*, p. 46.

233 Minnesota Private College Research Foundation, *Great Expectations: Employment Issues and Trends for Young College Graduates*, page 8.

234 JOBS NOW Coalition, The *Job Gap Study (Phase I)*, January 17, 1995, p. 6.

235 Minnesota Private College Research Foundation, *op. cit.*, page 3.

236 *Ibid.*

did not become appreciably more unequal during the 1980s.[237] The "very rich"—those in the top 5 percent of households—saw their incomes increase, but the increase came at the expense of households in the 75th to 95th percentiles. Census data do not show that Minnesota's poor households are becoming worse off on average.[238]

In the seven-county Twin Cities region, the overall income distribution also changed little during the 1980s.[239] However, the income gap widened for racial minorities and single-parent families. The region's poorest households were more concentrated geographically within the core cities of Minneapolis and St. Paul. And in the two core cities, a higher percentage of people of color were living in poverty than in the central cities of any of the other 25 largest urban areas.[240]

The overall distribution of *wages* is affected by many labor market factors, such as what kinds of jobs are being created, the mix of occupations and industries, and changes in pay rates. *Income* distribution is affected by wage rates and by many other factors: family structures, for example, and how many persons in the household work, the age structure of the population as a whole, and even the performance of the stock market, which affects households' earnings on assets.

The uncertain strength of each of these trends together, and the complexity of this issue, gives no clear reading on whether income disparities in Minnesota are widening or narrowing, according to a 1995 analysis by Don Hilber[241].

Changing work force

The Twin Cities work force is also changing, and that will pose a challenge to companies looking for workers. The region's employers have already experienced a shortage of workers, the result both of the region's vigorous economy and population growth that is slower than in the recent past. Demographic trends will increase the pressure on employers.

Between now and 2020:

- **Minnesota' labor force will continue to grow more slowly than it has in the past.** The labor force grew 30 percent between 1970 and 1980 and by 16 percent between 1980 and 1990—a gain of nearly 319,000 people during

237 Thomas F. Stinson, "Income Distribution in Minnesota," *1994 Economic Report to the Governor,* pp. 18-19.
238 *Ibid,* p. 20.
239 Carlson, *op. cit.,* p. 30.
240 *Ibid.*
241 Hilber, *op. cit.,* p. 49.

the 1980s. Only about 46,000 people will be added between 2010 and 2020.[242]

- **The work force will be older.** The share of younger workers age 16-24 will rise slightly through the rest of the 1990s. But between 1990 and 2020, the number of workers aged 45 and older will grow by 88 percent, while the number under 45 will decline slightly. The median age of people in the labor force will rise from 36.2 years to 41.6 years during the same period.[243]

- **The rural talent pool, which has contributed signficantly to the Twin Cities' growth, will continue to dwindle.** The farm population declined from half of the state's population in 1900 to 10 percent in the 1980s.[244] Improvements in agricultural productivity have just about topped out,[245] and the working-age population will decline in many of Minnesota's rural counties through 2020,[246] so the Twin Cities will have to look elsewhere if it wants its labor force to grow.[247]

  Twin Cities employers may have difficulty finding workers as well-prepared for the workplace as the earlier generation of rural workers were, according to geographers Adams and Van Drasek:

  > Rural immigrants who built the Twin Cities brought with them a rural, small-town work ethic, a knowledge of the natural environment, and skill with tools and machinery, plus a willingness to strive and sacrifice that have made the Twin Cities prosper.
  >
  > A decline in "free" (or at least bargain-priced) imported talent means higher costs to the Twin Cities for rearing and training their own replacement labor force.[248]

- **Women's share of the work force will increase.** As the growth of the working-age population slows, rising participation rates by women—especially the women of the baby-boom generation, as they age into their 50s and 60s—will account for most of the growth in the labor force between 2010 and 2020. By 2020, 48.2 percent of the state's work force will be women, compared with 46.3 percent in 1990.[249]

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242 Minnesota Planning, *Tomorrow's Labor Force: The Next 30 Years,* July 1994, p. 3.
243 *Ibid.,* p. 40.
244 Adams and VanDrasek, *op. cit.,* p. 46-47.
245 Borchert, *op. cit.*
246 Minnesota Planning, *Tomorrow's Labor Force, op. cit.,* p. 4.
247 Borchert, *op. cit.*
248 Adams and VanDrasek, *op. cit.,* p. 47.
249 Minnesota Planning, *Tomorrow's Labor Force, op. cit.,* p. 5.

- **The labor force will be more diverse racially.** While Minnesota's work force will continue to be predominantly white, the number of persons of color in the labor force is growing much more rapidly than the number of whites. The white labor force is projected to shrink after 2015, so all of the increase in the size of the labor force will come from non-white workers. By 2020, 16 percent of the youngest workers (age 16-24), and 12 percent of all workers, are projected to be non-white; by contrast, today only 5 percent of people age 65 and over are racial minorities.[250]

250 *Ibid.*, pp. 4, 6.

Signs of Trouble

The trends just described are, we think, Minnesota's own experience of long-term nationwide trends not likely to be altered.

We also found evidence that some of the factors that have apparently contributed to the region's prosperity may not be as strong as they once were. These trends are not necessarily inevitable or irreversible. They are the result of explicit policy choices or perhaps simply inertia—the difficulty of examining and perhaps replacing old practices to meet different realities.

An international underperformer

Minnesota industries export less to international markets than the national average and the Twin Cities region is slipping in the hierarchy of urban areas in the global network.[251]

While U.S. exports grew 90 percent between 1987 and 1993, the Twin Cities metropolitan region's exports grew only 68 percent.[252] Surprisingly, the greater Twin Cities region's exports grew even more slowly than exports for Minnesota as a whole, which showed a nearly 80 percent increase.[253] The brisker pace of exports outside the Twin Cities most likely reflects the recent tendency of manufacturing businesses—typically the strongest exporters—to locate in the suburban fringe of the metro area and in communities throughout Greater Minnesota.

U.S. and foreign cities are making major investments in their future position in the global economy. Here in the Twin Cities there are a number of separate efforts to improve the region's global connections, but there is no metropolitan strategy for building the collaborative networks, service

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251 Minnesota Department of Trade and Economic Development, 1995, and HITS, *op. cit.*, p. 12.

252 HITS, *op. cit.*, p. 12.

253 Census Bureau, Location of Exporter Series, 1994. These data are compiled and reported by zip codes; thus the area defined as "metropolitan" does not correspond exactly with either the Metropolitan Council's seven-county jurisdiction or the Census definition of the 13-county metropolitan statistical area.

infrastructure, education system, foreign contacts and image needed to maintain an important global presence.[254]

The University of Minnesota is slipping

The University of Minnesota ranks among the strongest research universities in the U.S. The University continues to have several outstanding clusters of departments: psychology, child development, educational psychology, communication disorders and family social science, in which the University is among the best in the world; chemical engineering, applied mathematics and mechanical engineering; a social science cluster including economics, political science and geography; and several of the professional programs such as public health, forestry and education.[255]

Unfortunately, however, there are indications that the University's overall reputation has declined.

The most recent ranking of doctoral programs by the National Research Council, released in 1995, was based on both objective measures of program quality and reputational surveys. The University of Minnesota was ranked twenty-third in "scholarly quality of program faculty." Its strongest programs were engineering, which ranked tenth, and social and behavioral sciences, which ranked 14th. (The University of Wisconsin-Madison ranked significantly above Minnesota in two of these comparisons: fifteenth for scholarly quality of faculty and ninth in social and behavioral sciences).[256]

Based on the rankings of faculty, the University has five programs that are among the ten best nationally: Chemical Engineering (1), Geography (3), Psychology (7), Mechanical Engineering (8) and Economics (10). Another ten programs are ranked in the top twenty.[257]

However, Minnesota did not even appear in the top 20 in the biological sciences (Wisconsin-Madison was fourteenth) or in the physical sciences and mathematics (Wisconsin was sixteenth). That absence signals a significant decline in reputation from 1957, when the University was ranked seventeenth overall in biological sciences and twelfth in physical sciences; in

254 HITS, *op. cit.*, pp. 2-3.
255 Robert Holt, *op. cit.*
256 David S. Webster and Tad Skinner, "Rating Ph.D. Programs: What the NRC Report Says—and Doesn't Say," *Change*, May/June 1996, pp. 22-50.
257 Mark Brenner, "Summary of the National Resarch Council Survey of Doctoral Graduate Programs," University of Minnesota Board of Regents Docket, November 9, 1995.

1957, the botany department was ranked eighth; the chemistry department ninth; and the physics department twelfth.[258]

Comparing rankings across institutions and over time is a complicated and difficult task. Economist Craig Swan of the University of Minnesota has used four different methods to compare the NRC's ranking of the University with rankings done the NRC and by other scholars in earlier years.[259] While there were slight differences in the rankings and in the changes in position depending on which method he used, **all of the comparisons showed the University declining substantially since the earliest ranking in 1925. The decline was most dramatic between 1982 and 1995**—a comparison which presumably is more instructive than comparisons with far earlier years. Of the 40 universities compared, Minnesota ranked 16 in 1982 (using either method) but dropped to 18, 19 or 21 in 1995.[260]

In another look at the NRC's rankings, Mark Brenner of the University of Minnesota's graduate school concluded that the University is among the top 20 research universities in the country. Brenner also noted that the NRC's rankings did not include several professional programs, such as veterinary medicine, that are considered to be of very high quality. Nevertheless, Brenner pointed out, the University has slipped the most compared with 1982 in the NRC's rankings of higher-rated programs, a trend that suggests that "we are a research university with many very strong but not that many distinguished graduate programs." Of particular concern was the slippage of the biological sciences from twentieth in 1982 and to thirty-sixth in 1993.[261]

In another comparison, the national news magazine *U.S. News & World Report* annually ranks America's best graduate schools, based on a combination of student selectivity, placement success, faculty resources, and the results of reputation surveys. The *U.S. News* ratings are considered by scholars to be less systematic than the NRC ranking but its results, too, have shown the University conspicuously absent from the ranks of the top schools in many disciplines.[262]

As an increasing share of the U.S. population has obtained undergraduate degrees, *graduate* education has become more important as the magnet for the most talented students. The educational institutions that are currently

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258 Hayward Keniston, "Standings of American Graduate Departments in the Arts and Sciences," Graduate Study and Research in the Arts and Sciences at the University of Pennsylvania." University of Pennsylvania Press, 1959.

259 Craig Swan, "Notes on National Rankings," November 2, 1995. For a detailed description of Swan's methodology, see his Home Page at http://www.econ.umn.edu/~cswan. Choose "Comments on National Research Council Rankings."

260 *Ibid.*

261 Mark Brenner, *op. cit.*

262 *U.S. News and World Report*, March 20, 1995.

the best "talent magnets" excel in the core arts and sciences, not just in a few specialized departments. The urban regions that have enjoyed strong economic growth—Boston, Austin (TX), Seattle, California, Raleigh-Durham—all have first-class research universities that rank in the top 10 to 12 nationally in the core arts and sciences. Thriving urban areas tend to have universities that have improved dramatically.[263]

There are signs that the University of Minnesota has lost some of its capacity to attract talent nationally. The University's most outstanding programs receive applications from top graduate students all over the nation and world. Some of the University's other strong graduate programs, by their nature, can be expected to draw primarily from the local area. In a handful of departments that should be expected to attract talented applicants nationally, however, most applications come from the Twin Cities.[264]

The decline in the quality and reputation of certain departments at the University may have already resulted in missed opportunities in certain key industries, such as biotechnology. One of the great intellectual revolutions in recent history, the discovery of DNA, completely bypassed the University in its early years, and the University is still struggling to catch up. Growing, effective biotechnology firms tend to be located near universities with strong molecular biology departments, and not a single one of these firms is located in Minnesota.[265]

The Medical School has contributed mightily to the Twin Cities region's medical device industry, but industry leaders who participated in the Metropolitan Council's industry cluster study expressed concern that "the Medical School's recent problems may have an adverse impact on future industry development."[266] (The University's medical school also was noticeably absent from the top 25 research-oriented medical schools in *U.S. News'* ranking.)

Similarly, the University's electrical engineering department was instrumental in the development of the Twin Cities' computer industry, but the decline of the computer hardware industry here has prompted concern about who will train the next generation of computer and software innovators.[267] Industry leaders have expressed the concern that the University focuses too much on supercomputing and mainframe computing rather than on the more commercially viable areas of personal computing or software development.[268]

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263 Holt, *op. cit.*
264 *Ibid,.*
265 *Ibid.*
266 Metropolitan Council, *Twin Cities Industry Cluster Study*, p. 51.
267 *Ibid*, p. 50.
268 *Ibid*, p. 30.

Some have attributed the perceived slippage of the U of M to declining financial support. The University *has* faced serious and persistent financial problems because of its own cost pressures and appropriations that have declined in inflation-adjusted terms. The State of Minnesota's inflation-adjusted spending on higher education in general has declined in absolute terms and as a share of overall general fund spending, from 15.8 percent in 1978 to 11.8 percent in the 1996-97 biennium.[269] Appropriations to the University have declined 8 percent in constant dollars between 1990-91 and the 1995-96 biennium.[270]

The decline in real spending and the shrinkage of higher education's share of the state budget have largely been the result of growth in spending on K-12 education and health care. The Legislative budgeting process does not easily permit a discussion about what priority the higher education system in general, and the University of Minnesota in particular, should receive relative to other spending demands.

The decline in appropriations is not likely the only explanation for the University's declining quality, however. Within the University, attention has frequently focused on administrative cost and tuition concerns. Significant reallocation among departments has become extremely difficult because of the politicized nature of the budgeting process.[271]

We're losing our brainpower edge

Minnesota students have traditionally fared favorably in comparisons with students in other U.S. states.[272] They still do.

The good news is that for the 1992-93 school year, Minnesota's graduation rate of 89.1 percent placed the state first in the nation.[273] Minnesota students scored higher on both the ACT and SAT tests than the U.S. average.[274] Minnesota's dropout rate was second lowest in the nation in 1990.[275] And in 1990, 82.4 percent of Minnesota citizens had a high school diploma, and 21.8 percent had a college degree, compared with 75.2 percent and 16 percent, respectively, for the nation as a whole.[276]

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269 Minnesota Department of Finance.
270 University of Minnesota, Office of Planning and Analysis.
271 Holt, *op. cit.*
272 Anton, *op. cit.*
273 Minnesota Department of Education, *Information on Minnesota High School Graduates and Dropouts*, 1993-94, p. 2.
274 State of Minnesota, Higher Education Service Office.
275 *Compare Minnesota 1994-95*, p. 81.
276 *Ibid.*, p. 87.

Minnesota's students must now view themselves as participants in a global labor market, and must meet global standards of knowledge and skill. **While Americans have enjoyed an undisputed brainpower advantage almost uninterrupted since World War II, other nations are rapidly catching up and some may be surpassing us.**

Making sense of indicators of educational progress is a classic exercise in deciphering conflicting data and, when the data agree, determining whether the "glass is half full or half empty."

New national test results from the National Science Foundation (NSF) provided welcome good news about Minnesota's student achievement. The NSF found large variations by state in average student scores on math and science tests, with **Minnesota's 13-year olds performing among the best in the U.S. and on a par with their peers in South Korea and Taiwan,** the best-performing nations.[277]

Using the same data set, the National Goals Panel analyzed whether students were able to meet its world-class performance standards in reading and math. The Panel found that only 37 percent of Minnesota eighth graders, and 27 percent of fourth graders, met its performance standard in mathematics. Only 28 percent of Minnesota fourth graders met the Panel's performance standards in reading.[278] In other words, while the average Minnesota student performed as well as the average South Korean or Taiwanese, **a significant majority of Minnesota students were unable to meet the Goals Panel's standard of what students *should* know and be able to do.**

Another recent study of educational achievement by students in Minneapolis, Japan and Taiwan found that Minnesota first graders, who had a slight edge in educational achievement, had lost their lead by fifth grade. By eleventh grade, almost all the Japanese and Taiwanese children in the study were achieving above the average of their Minnesota peers.[279]

Even by our own standards, Minnesota students are failing to achieve basic literacy in significant numbers. The state's first round of tests leading up to implementation of the graduation rule revealed that 37 percent of Minnesota's eighth-graders were unable to pass basic skills tests in reading and 24 percent were unable to pass in math. The results were much worse in the urban metro area, where 53 percent of students failed the math test and 59 percent failed the reading test.[280]

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277 National Science Foundation, *Indicators of Science and Mathematics Education,* 1995.

278 *National Education Goals Report: Building a Nation of Learners,* 1993.

279 Harold W. Stevenson, "Learning from Asian Schools," *Scientific American,* December 1992.

280 Minnesota Department of Children, Families and Learning, 1996.

Several local studies have indicated that local employers are not satisfied with the entry-level skills of Minnesota's high-school graduates. For example, in a 1992 Minnesota Business Partnership/Employers' Association survey of 351 Minnesota firms, fewer than one-third of respondents said that today's employees are prepared to estimate results, prepare and interpret tables, use math techniques and decide how to use resources. Sixty-four percent said that while today's job applicants are as well-educated as applicants were 10 years ago, that standard is no longer good enough for today's world-class business standards.[281]

Employers' dissatisfaction is occurring despite the fact that Minnesota's work force, one of the best educated in the nation, is attaining increasing amounts of schooling. During the 1980s, the share of Minnesota 25-to 34-year-olds who had completed four years of college increased from 16 percent to 21 percent, while the share who had only a high school diploma shrank from 42 percent to 31 percent.[282] In the seven-county Twin Cities region the amount of schooling people received increased between 1980 and 1990 and the proportion of high-school dropouts declined.[283]

Employers' dissatisfaction is also occurring despite the fact that from 1960 to 1990, the amount spent per public-school student nearly tripled, after adjusting for inflation.[284]

Several resource people who spoke to the committee said that Minnesota's education system is not responding to the requirements of today's workplaces. Among their observations:

- **Educational standards for core competencies are not high enough.** Employers require a higher level of reading, math and communications skills than they did in the past, even for entry-level jobs. An increasing number of employers no longer consider a high school diploma a credible indication of whether applicants have basic skills.

- **The education system continues to use a mass-market, mass-production approach that rewards students for responding to orders and being passive, obedient and reliable**—qualities that were well-suited to Taylorist workplaces where workers were not expected to think independently. The curriculum underemphasizes skills such as

281 Minnesota Business Partnership Academic Agenda Subcommittee, "Employment Education Survey—Overview of Results," summary, undated.

282 Minnesota Private College Research Foundation, *op. cit.*, page 2, and additional data from Foundation staff.

283 Carlson, op. cit., p. 35-36.

284 John Brandl and Vin Weber, *Agenda for Reform: Competition, Community, Concentration*, (Report to Governor Arne Carlson), November 1995, p. 18.

teamwork, initiative and critical problem-solving that are increasingly important in today's workplaces.

- **Minnesota is "losing" many students.** Gaps in graduation rates and achievement levels between white students and students of color are alarming. The Minnesota Department of Education has projected that if the 1993-94 dropout rates for grades nine through 12 remain constant, the four-year cumulative high school dropout rate for the ninth grade class of 1994 will be 19 percent. However, the rate ranges from 15.1 percent for white students to 27.2 percent for Asian students, 53.9 percent for Hispanics, 57.1 percent for Native Americans and 61.9 percent for African Americans.[285] This measure is a worst-case scenario, since some dropouts will re-enroll or earn a G.E.D. Nevertheless, the measure is cause for concern about the schools' performance with students of color.

- **High schools tend to put the highest priority on, and direct the most resources to, the college bound.** Curriculum requirements are geared toward ensuring that students meet college entrance requirements. This is the case even though many young people will not get a college degree and many good jobs do not require a four-year liberal arts degree. In contrast, countries including Japan and Germany devote significant resources and attention to vocational education.

- **The transitions between high school, technical school, other vocational preparation, college and the workplace are not smooth.** A raft of national commissions and reports have concluded that the U.S. in general has failed to create a system of education and employment opportunities to prepare youth for careers in today's economy.[286]

  According to the resource people who spoke to the committee, Minnesota's system of school-to-work transition is similarly weak. Vocational curricula are outmoded and generally isolated from meaningful on-the-job instruction.

  There are several efforts now under way, such as the Minneapolis Youth Trust's New Workforce, the Greater Minneapolis Chamber of Commerce's Building Our Future, and school-to-work programs at the state's Department of Children, Families and Learning, all attempting to create better linkages between employers, schools and training institutions.

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285 Minnesota Department of Education, *Information on Minnesota High School Graduates and Dropouts,* 1993-94, p. 7.

286 Minneapolis Youth Trust, *New Workforce,* June 1994, p. 1.

- **There are few systematic connections between schools and employers.** The U.S. in general teaches students less about work in its schools than almost any of its industrial competitors. Students come through the system not understanding that they will work, or the connection between what they are learning and the world of work. Employers are not viewed as customers of education, and there are few built-in mechanisms to help schools adjust to changing occupational and industry requirements.

- **Schools are not adopting advanced educational technology quickly,** nor are educational institutions thinking much about the promise and impact of new technologies. The equipment available to students is often out-of-date, school buildings may be so obsolete that state-of-the art equipment can't be installed, and teachers often are unprepared to teach cutting-edge skills or integrate the technologies into regular classroom activities.

Minnesota's public investment in post-secondary education has been in relative decline and the institutions themselves are not keeping up with the changes required by the new economy.

- **The share of state spending devoted to higher education has been shrinking.** State general fund support for higher education between 1987 and the 1996-97 biennium has declined as a percentage of general fund expenditures from 15.8 percent to 11.8 percent. The state's spending on higher education has been far outpaced by spending on social services, primarily health care.[287]

- **Low-income students are encountering increasing financial barriers to post-secondary education.** Despite the state's institutional subsidies that write down the tuition "price" for all students, the tuition price is still out of reach of many low-income families.

  Higher education tuitions are rising faster than incomes. Between 1983 and 1993, constant-dollar per capita income grew by 14 percent, while constant-dollar tuition and fees increased 65 percent in the University's College of Liberal Arts, 90 percent in the state universities, 60 percent in the community colleges and 170 percent in the technical colleges.[288]

  Direct financial aid for needy students—which only accounts for 10 percent of the state's higher education spending—is often insufficient to

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287 Minnesota Department of Finance.

288 Minnesota Private College Research Foundation, *Ways and Means: How Minnesota Families Pay for College,* November 1992.

fill the gap between the cost of attending college and their families' available resources.

And direct financial aid hasn't kept up with rising tuition. As tuition has risen and economic conditions have squeezed household budgets, low-income people have been less likely to even apply for financial aid. Between 1986 and 1993 (the last year for which information is available), aid applications from families with incomes under $30,000 dropped 25 percent.[289]

- **Technical colleges programs are sometimes teaching to outmoded technologies.** In the printing and machinery industries, for example, the rapid pace of technological change requires firms to continually train and re-train their employees. In the three or four years it takes the Technical Colleges to develop a new curriculum, the technology has become outmoded.[290]

- **The education system is not designed to meet the continuing education needs of adults already in the work force.** Because the current work force is aging, upgrading skills of older workers will be more important, but in general, Minnesota's education system is not designed to view education, training and re-training as a continuous, lifelong process.[291]

- **Post-secondary institutions have been slow to innovate.** In spite of very real fiscal pressures, appropriations to Minnesota's public post-secondary institutions nevertheless did grow 9 percent between 1984 and 1994, nearly 40 percent more than the 6.5 percent increase in total student enrollment.[292] The institutions, however, have been slow to reallocate resources and to develop more innovative and efficient ways of delivering instruction.

  Joe Graba, interim director of the Minnesota Higher Education Services Office, said that "higher education today is where the railroads were in the 1940s. The system is doing well because there isn't anything really competing with it." Competition from alternative providers is beginning to develop. Such competition will press traditional institutions to become more efficient and responsive to the needs of students and employers.

- **Employers and various private-sector providers play important roles in education, both before graduation and throughout work life.** Nationally,

289 Minnesota Private College Research Foundation.
290 Metropolitan Council, *Twin Cities Industry Cluster Study, op. cit.*, p. 23.
291 George Copa, testimony to commitee, January 17, 1995.
292 Brandl and Weber, *op. cit.*, page 24.

American companies spend billion of dollars on employee training and re-training, most for upper-level management. Still, the amount currently spent is less than 1.5 percent of the companies' payrolls, less than half what many experts believe is needed to be competitive in today's economy.[293] The public sector tends not to view employers and their private investments as part of the overall scheme for training and retraining workers.

The State and region's education policies are not currently driven by consideration of how these education challenges are germane to the greater Twin Cities' place in the *global* economy. Little attention is paid to questions such as: Which strategic, specific investments in education should be made to position the area globally? What human resources does the Twin Cities region currently offer that give the region a competitive advantage? How could those advantages be strengthened? What do the region's major industries and employers want and need from workers? Should the Twin Cities develop a pool of skilled labor in certain industries, attempt to attract certain specialists, or make technology a priority? Or some other strategy?

We're facing major infrastructure decisions

One of the central economic development activities of state and local government is providing the infrastructure for economic activity.

The greater Twin Cities region's physical infrastructure is in good shape now, but we heard repeatedly that it will not be adequate to keep the region competitive in the future.

The public sector is facing key infrastructure decisions and challenges, the outcomes of which will have a profound effect on the state and region's "place" in the global economy.

- **The state's highway system is being used more heavily, but revenues are becoming increasingly tight.** Minnesota's population grew 10 percent between 1980 and 1992, 400,000 new jobs were added and the number of vehicle miles traveled on the state's highway system increased nearly 45 percent.[294] Many parts of the highway system are reaching the end of their design life.[295] Minnesota's highway users, however, spend 40

293 Swanson, William, "Bright Ideas for a More Competitive Workforce," *Minnesota Technology*, Summer 1994, p. 15.

294 Gene Ofstead, Assistant Commissioner, Minnesota Department of Transportation, letter to Deb Pile, Strategic Planning Specialist, Minnesota Planning, October 12, 1994, p. 3.

295 *Ibid.*

percent less per mile in user fees than they did 25 years ago.[296] Many transportation responsibilities—including funding responsibilities—are being shifted from the federal to the state level, putting pressure on state transportation budgets already being elbowed by other state spending priorities.[297] And taxpayers are showing little willingness to pay more taxes of any kind.

Highway revenues and appropriations are only sufficient to barely maintain the state's current system, not to improve it. The region can expect increases in weight restrictions, more congestion, and deteriorating bridges. Needs for new roadways will go almost entirely unmet, and the state will be forced to patch existing roads when rebuilding would be more cost-effective—thus pushing to future taxpayers the growing bill for rebuilding an aging system.[298]

- **Recent cuts in appropriations for transit in the Twin Cities have resulted in reduced service and higher fares.** Even as transit resources have been reduced, the region's jobs and residences have become more and more suburbanized, magnifying the difficulty of designing cost-effective transit solutions. Without additional support from the State Legislature, it is likely that transit services will continue to be cut and fares increased.[299]

- **The region is projected to add 660,000 people and 330,000 households by 2020.** Past policies and patterns of development have resulted in the greater Twin Cities region becoming one of the most sprawled in the U.S. If past development patterns are allowed to continue, the region can expect pressure for more urban service infrastructure such as water, sewer and highways.

- **The 1996 Legislature culminated the dual-track airport planning process with the decision to expand MSP rather than build a new airport in Dakota County. That decision points to several questions about how MSP will function as Northwest's hub and about the degree of competition that will be permitted or encouraged in the region's airline market.**

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296 Commissioner James Denn, Remarks to the 102nd annual meeting of the Minnesota Transportation Alliance, October 11, 1995.

297 Lee Munnich, Jr., *The Future of Highway Transportation—Roles and Responsibilities of Government: Financial and Taxation Issues*, Paper Prepared for the Transportation Research Board of the National Research Council, Research and Technology Coordinating Committee's Task Force on the Future of Highway Transportation, July 1996, p. 2.

298 *Ibid.*

299 *Ibid.*

The design of an airport has important consequences for airline competition. Alfred Kahn has said that if airline deregulation is to work, any new airport capacity must be designed in a way that opens up markets to greater competition. MSP—as well as any new airport—can be designed to either open up the Twin Cities market to greater competition, or to maintain Northwest's dominant position. (Likewise, the Dakota County option could have been designed either way.) The proposed MSP design is the one most preferable to a dominant carrier seeking to maintain its fortress position.[300]

Also important to sort out will be the question of how the region's international air service needs—especially cargo service—can and will be served by the expanded airport, given Northwest's recent pattern of using Detroit as its international hub.

- **The greater Twin Cities region is running out of rail-truck intermodal terminal capacity.** Minnesota's rail system is carrying more freight tonnage than ever before, and is playing an increasing role in the shipment of intermodal containers.[301] The Burlington Northern intermodal terminal is already working at its practical capacity and the CP Shoreham facility is projected to run out of capacity by 1997. Terminal capacity is one of the major constraints on the growth of intermodal transportation. A partnership among the Metropolitan Council, the Minnesota Department of Transportation, CP Rail System, Union Pacific Railroad and Burlington Northern-Santa Fe has recommended that a new shared intermodal terminal be constructed to meet forecast demand over the next 20 years.[302]

- **Decisions must be made soon about whether to rebuild the Upper Mississippi's lock and dam system, increase its capacity or do nothing.** Barge transportation enables Minnesota's agricultural and other commodity producers to get their products to markets around the world and still be price competitive—even though the Twin Cities is as far away from anywhere as it is possible to be.[303]

  The barge industry is dependent on the lock and dam system, built beginning in 1914 with extensive locks and dams added in the 1930s.

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300 Farmer, testimony.

301 Randall Halvorson, Assistant Division Director, Minnesota Department of Transportation, letter to Citizens League, November 14, 1995.

302 Cecil Selness, testimony to committee, November 29, 1995, and *The Need for Intermodal Railroad Terminal Facilities in the Twin Cities Metropolitan Area,* Minnesota Intermodal Railroad Terminal Study, February 1995.

303 Lee Nelson, testimony to committee, November 29, 1994.

The system was built with a 50-year life expectancy and is reaching the end of its design life.[304]

The system was also designed to accommodate a fraction of the current level of traffic. While many of today's tow-barge configurations are 1,200 feet long, for example, most of the locks on the system are 600 feet. The system is operating at capacity today. In 1992, 87,000 hours of delay were caused by limitations on the size of locks on the lower Mississippi, and that lost time translates to $35 million in excess cost passed on to users and their ultimate consumers.[305]

The river's navigation system will require improvements and probably expansion if river transportation is to remain competitive, according to the U.S. Army Corps of Engineers, which has been studying the issue. The need for expansion will have to be weighed against many important environmental, recreational and community concerns. The Corps is charged with making recommendations to Congress by 1999 regarding capital investments needed to make the proposed improvements.[306]

- Congress' recent passage of a new law deregulating the telecommunications industry is expected to result in a storm of industry restructuring and technological innovation. While other states have been moving quickly to enhance state-of-the-art telecommunications as a critical component of their future economic growth, **Minnesota has not had a focal point for planning, coordinating and implementing an information infrastructure program in Minnesota.** (As this report went to print, Governor Arne Carlson announced the formation of an Office of Technology and the appointment of John Gunyou as its director.)

- **Minnesota's school districts deferred maintenance on their facilities during the 1970s and 1980s.** While the state's school facilities are in better condition than those in other states, on average, repair and maintenance needs are high.

  Those expenses—along with rising enrollments, the need to upgrade buildings to accommodate advanced learning technologies, and the need to comply with regulations such as the Americans with Disabilities Act—mean demand for capital spending will increase. In 1995 the Minnesota Department of Education estimated that total spending through school bond issues would be $550 million per year through

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304 *Ibid.*
305 *Ibid.*
306 U.S. Army Corps of Engineers, *Upper Mississippi River-Illinois Waterway System Navigation Study,* 1994.

2000.[307] Despite this anticipated demand for spending, however, there is no ongoing process for planning, prioritizing or coordinating the needed capital investments on a regional basis.

Policies still favor consumption

Like the federal government's policies, Minnesota's state and local public policies favor the interests of Minnesotans as consumers and discourage individual, business and public investment—the key determinant of productivity improvement.

- **Government in Minnesota subsidizes expensive consumption patterns.** In Minnesota, as throughout the U.S., for example, government frequently subsidizes retail developments that include vast amounts of free parking, all designed to make shopping easy, fun and convenient. (By contrast, a web of policies in Japan seem designed to make shopping inconvenient, even unpleasant.)[308]

- **Minnesota has traditionally been reluctant to extend consumer sales taxes** more broadly to include items such as clothing. Personal services are mostly not taxed.[309]

- **The state's income and property-tax codes subsidize homeowners, even wealthy homeowners,** encouraging consumption of ever-larger and more expensive housing.[310]

- **At the same time, the property-tax code penalizes commercial/industrial property,** imposing a tax burden that is three to four times higher than residential property. Minnesota's commercial property taxes are the highest—by a wide margin—in the U.S. Sales tax is still charged on many business inputs, including some capital equipment.[311]

Minnesota and the Twin Cities region invest heavily in urban sprawl, which is costly to economic growth. Methods for financing highways and other infrastructure do not confront individuals with the true costs of their expensive lifestyles,[312] feeding the propensity to move farther and farther away from the center of the metro area. These financing and tax policies

307 Minnesota Planning, *Within Our Means: Tough Choices for Government Spending,* January 1995, p. 19.
308 Eamonn Fingleton, *Blindside: Why Japan is Still On Track to Overtake the U.S. Economy by the Year 2000.* Boston: Houghton Mifflin, 1995, p. 54.
309 Dan Salomone, testimony to committee, February 14, 1995.
310 Adams, testimony.
311 Salomone, *op. cit.,* and Bill Blazar, testimony to committee, September 13, 1994.
312 Adams, testimony.

combine with zoning and development laws to encourage auto dependency and consumerism and feed urban sprawl. Such development patterns are expensive. Infrastructure is more costly in the short term. In the long term, the disparities in the economic health of core cities and suburbs, which often result from such patterns, are costly to the economic growth of the region as a whole.[313]

Demand for public services is outpacing revenues

Minnesota's public sector continues to reflect the assumptions and patterns of an earlier era. Just as the federal government's role expanded during the post-war period, so too did state and local governments in Minnesota expand their scope and their spending. Between 1950 and 1990, Minnesota's state and local government spending increased faster than both population and personal income.[314] The increased spending between 1950 and 1967 was largely on schools, whose enrollments were burgeoning, but after 1967 the biggest increases have been for an expanded safety net of social services, income maintenance and health care.[315]

The state has built up a burden of unfunded programs and future spending commitments, leading to expectations of continued spending increases in the face of slow revenue growth.[316] The spending commitments are primarily in the areas of health care, long-term care for the elderly and disabled, elementary and secondary education, and property-tax relief.

The state does not suffer from an overload of government employees compared with other states. Minnesota's full-time equivalent (FTE) employment in state government was 150 per 10,000 population (compared with the U.S. average of 151) and in local government was 385 per 10,000 (compared with the U.S. average of 373). By contrast, Kansas's public employment was significantly higher at 190 and 433 per 10,000; and neighbor

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313 For more on the relationship between city-suburb disparity and long-term economic growth, see the following:
•Katherine L. Bradbury, Anthony Downs and Kenneth A. Small. *Urban Decline and the Future of American Cities.* Washington, D.C.: The Brookings Institution, 1982.
•Larry C. Ledebur and William R. Barnes. *City Distress, Metropolitan Disparities and Economic Growth* (combined revised edition). Washington, D.C.: National League of Cities, September 1992.
•Richard Voith. "City and Suburban Growth: Substitutes or Complements?" *Business Review.* Federal Reserve Bank of Philadelphia, September-October 1992.
•Richard P. Nathan and Charles F. Adams, Jr. "Four Perspectives on Urban Hardship." *Political Science Quarterly,* Fall 1989.

314 Minnesota Planning, *Within Our Means, op. cit.,* page 7.

315 *Ibid.*

316 Salomone, *op. cit.,* and Brandl and Weber, *op. cit.*

Wisconsin's was lower, at 145 and 377.[317] Government's share of employment in the Twin Cities declined from 16.7 percent in 1976 to 12.1 percent in 1989.[318]

Nevertheless, Minnesota's fiscal gap—the difference between anticipated expenditures and projected revenues—is expected to reach $800 million by the 2004-2005 biennium. The *cumulative* gap will reach $2.5 billion by 2005.[319] The gap reflects Minnesota's difficulty in coming to terms with a very different set of demographic and economic "givens."

"Economic development" is plentiful, but effect is uncertain

The greater Twin Cities region is made up of some 272 separate local government units: seven counties, 138 cities, 50 townships, 49 school districts, six metropolitan agencies and 22 special purpose jurisdictions.[320]

In Minnesota, the various activities that comprise "economic development" are carried out by many different levels and units of government.

At the state level, economic development activities are carried out by the Department of Trade and Economic Development (DTED), including its Minnesota Trade Office. The Department of Transportation is responsible for planning and maintaining the state's transportation infrastructure. Some job training services and job development activities are provided by the Department of Economic Security. And the Department of Children, Families and Learning, University of Minnesota and Minnesota's State Colleges and Universities (MnSCU) all have responsibilities for work force preparation.

Regional economic development activities are carried out by the Metropolitan Council, which develops the *Regional Blueprint,* a long-range plan for the economic development of the region, the Metropolitan Airports Commission and the Metropolitan Sports Facilities Commission.

At the local level, school districts provide education for the region's future work force, and neighborhood associations may carry out development

317 Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism,* Volume 2, 1994, p. 152.
318 Metropolitan Council.
319 Minnesota Planning, *Within Our Means, op. cit.,* p. 3.
320 Arthur Naftalin, 1986, cited in: Judith A. Martin, "In Fits and Starts: The Twin Cities Metropolitan Framework," *Metropolitan Governance: American-Canadian Intergovernmental Perspectives,* Donald N. Rothblatt and Andrew Sancton, eds. Berkeley, CA: Institute of Governmental Studies Press, University of California, Berkeley, 1993, p. 210.

projects that affect the competitiveness not just of their neighborhoods, but the city and region (Minneapolis' Neighborhood Revitalization Program is one example).

Minnesota's city governments have a substantial role in what is considered "economic development." The focus of most of these municipal efforts tends to be on jobs for that community and tax base for the local government. Municipal "economic development" spending is mostly subsidies to individual firms and developers.

The development tools municipal governments use include Tax Increment Financing (TIF), industrial revenue bonds, and incentive grants, low-interest loans and technical assistance programs (some of which are funded by DTED but funded and delivered through local communities).

A 1993 *Corporate Report* article described several recent local economic development projects. They included $5.15 million in public subsidies (out of a total incentive package of $6.87 million) to keep 100 Tyler Industries, Inc., jobs in Benson; and the giveaway of a fully-improved 18-acre site, plus additional site improvements valued at $280,000—to entice Copper Sales, Inc., to expand and relocate from Plymouth to Anoka.[321]

Tax Increment Financing (TIF) is the tool most frequently used by municipal governments.[322] (TIF allows communities to "capture" the increased property tax revenues—the "tax increment"—generated by a development to finance some of the costs of that development. The increased tax revenues are not available for general city expenses or to other taxing districts, like the county or school district. Rather, they are reserved for TIF expenses, for the life of the TIF district, which can range up to 25 years, depending on the type of district involved.)[323]

Cities may use TIF under certain circumstances and for certain activities specified by statute—for example, to redevelop blighted areas, improve soil conditions, clean up contaminated sites, provide for affordable housing, and for "economic development" to increase employment, enhance tax base and retain commercial activity.[324] Economic development and redevelopment districts accounted for 79 percent of all TIF districts in 1995.[325]

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321 Eric Wieffering and Lee Schafer, "The New Venture Capitalists—Taxpayers," *Corporate Report*, August 1993, p. 24-34.

322 Office of the Legislative Auditor, *Tax Increment Financing*, March 1996, p. 60.

323 Definition extracted verbatim, with permission, from: Dana Schroeder, "Value Captured in Tax-Increment Districts Rises Again," *Minnesota Journal*, April 23, 1996.

324 Office of the Legislative Auditor, *Tax Increment Financing, op. cit.*, pp. 7-13.

325 *Ibid.*, p. 41.

Cities wishing to use TIF for economic development must submit a TIF plan, which must include a finding that the development could not reasonably be expected to occur with solely private investment.[326] (The latter requirement is known as the "but-for" requirement.)

In 1995, the tax base captured in TIF districts statewide amounted to more than $203 million—more than 6 percent of the state's total property tax base of $3.3 billion.[327] The seven-county Twin Cities metropolitan area has proportionally more tax base captured in TIF districts than the rest of the state.

The net captured taxes (that is, tax revenues collected in TIF districts) amounted to nearly $206 million in the metro area.[328] Most TIF taxes are dedicated to paying off the development costs for the TIF district, but some are used to pay for cities' general public improvements and projects. TIF taxes represent a substantial stream of revenues for city governments; in 1995, net TIF taxes were 40 percent as high as property taxes levied by Minnesota's cities and townships for *all other purposes.*[329]

A 1996 review of Tax Increment Financing by the Office of the Legislative Auditor included the following observations:

- **Local government officials reported that they use TIF to compete with one another for new companies.**[330] Companies shop for the best development deal, and city governments feel they must offer incentives in order to stay in the game.

- **Some of the cities reviewed in the study were unable to analyze and document how the TIF districts met the "but-for" requirement.** Other cities had originally submitted plans that did not include specific objectives, so it was impossible to determine how they were using TIF. In any case, the Auditor concluded, "given the variety of interpretations available, it is difficult to imagine a development that would not meet the 'but-for' test in some sense." The report continued:

  > Ultimately, however, the "but-for" analysis evaluates the merits of a proposed development from the city's perspective, not the county's or the state's perspective. If the "but-for" analysis for a proposed development were conducted from the county or state perspective, the outcomes would likely be different. From the state's perspective, using TIF to subsidize a manufacturing company that could relocate in any number of Minnesota cities is much less

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326 *Ibid.*, p. 16.
327 Schroeder, op. cit., p. 1.
328 *Ibid.*, p. 6, 7.
329 *Ibid.*, p. 7.
330 *Ibid.*, p. 51.

likely to result in a net increase in jobs than using state resources to attract a manufacturing company that competes in national or international markets.[331]

(The 1995 Legislature gave the Office of the State Auditor new responsibilities for monitoring and enforcing TIF laws, effective July 1, 1996.)

- **Some communities on the fringe of the metropolitan area have used TIF to subsidize new development in the fastest-growing and most desirable locations in the region.** Some cities have used TIF for improvements to public infrastructure such as sewer interceptors, water towers and system and freeway interchanges. "Even if cases such as these resulted in increasing jobs and tax base for the region as a whole, the use of public subsidies to support such projects might not have been consistent with the Metropolitan Council *[Regional Blueprint]*'s regional development goals," the Auditor noted.[332]

What are the results?

Minnesota does not have systems in place that would show the full picture of its spending on economic development and trade promotion. Information is not kept systematically on the total amount of direct and indirect spending on "economic development" provided through state, regional and municipal governments.

It is generally difficult to evaluate the effect of economic development spending. For one thing, "economic development" can be defined by a variety of measures, from job growth to growth in per capita income. For another, economic growth (using whatever measure) occurs as a result of many complex forces that are difficult to isolate.

Partly because of the analytical complexity involved, there is little good information showing the net economic benefits of Minnesota's state, regional and local spending on economic development. Minnesota's Department of Trade and Economic Development has been a national leader in developing performance measures for public programs.[333] DTED's *Economic Blueprint*—which contains seven goals and 27 quantitative indicators to track performance on the goals—is considered a pioneering economic goal

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331 *Ibid.*, p. 73.
332 *Ibid.*, p. 79.
333 Office of the Legislative Auditor, *Comments on the Department of Trade and Economic Development 1993 Draft Performance Report*, June 1994, p. 1.

statement. The Department has also been a leader in the use of customer satisfaction surveys.[334]

In a review of DTED's 1994 Performance Report, the Legislative Auditor noted the tremendous complexities and difficulties involved in measuring job creation, just one aspect of economic development. The report said that DTED had done a good job overall in reporting performance, but also pointed out, for example, that DTED did not count jobs that might be created indirectly as a result of its efforts (which would be appropriate), and failed to subtract from its job creation figures those jobs that would have likely been created even without its assistance.

In addition to these difficulties, DTED's evaluation mechanisms are designed to assess job and tourist growth—appropriate, given the Department's mission.[335] But job and tourist growth reveal only part of the story of economic vitality.

There also is no public sector equivalent of "balance sheet" that would show the effect of current flows of revenue and expenditure on the underlying capital stock of the greater Twin Cities region as a whole. Thus, transfers of value—as occurs when a business relocates to a developing suburb—are perceived as "development" by the local government even in the face of a net loss to the region's total capital stock.

There is no independent means of evaluating the performance of Minnesota's K-12 school districts, which represent the state's largest investment in economic development. Elementary and secondary education will consume between $5 billion and $6 billion dollars—about 30 percent—of Minnesota's state and local spending in the 1996-97 biennium. Yet there is little information that enables citizens and policymakers to evaluate whether appropriate results are being achieved as a result of this level of spending.

Education performance is, by nature, difficult to assess and goals have not always been clear. Most education measures have therefore focused on inputs such as spending, student-staff ratios and the number of computers per classroom. The public education system—unlike most enterprises—is permitted to be the sole evaluator of its own performance. Administrators, fearing that performance measures will be used to compare districts and schools, have either not reported performance at all, or have tested for and reported performance in ways that have made comparisons impossible.[336]

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334 *Ibid.*

335 DTED's statutory responsibilities are to "employ all of the available state government resources to facilitate an economic environment that produces net new job growth in excess of the national average and to increase non-residential and resident tourism revenues."

The recent round of test results from preparation for Minnesota's graduation rule provided some of the first insight into what students across school districts know and are able to do.

The region has no strategy

While governments—and partnerships of government and business—in other states and metropolitan areas have developed strategic plans, the public sector in the greater Twin Cities region does not have a coherent strategy for enhancing the region's competitiveness. There are some promising beginnings of an economic strategy, but the pieces are not connected systematically.

In the public sector, the efforts include:[337]

- ***Economic Blueprint,* DTED.** This broad-based statement of goals for Minnesota's economic health and competitiveness was developed as part of the Minnesota Milestones process in 1991-92.*

- **Minnesota Competitiveness Task Force, staffed by DTED.** This task force of local leaders in business, education and the public sector was created by the 1993 Legislature to monitor and modify the goals and benchmarks of the Economic Blueprint; study and define Minnesota's competitiveness at all levels; and formulate strategic recommendations for increasing the competitiveness of Minnesota's people, natural resources, infrastructure and business.*

- ***Metropolitan International,* Metropolitan Council.** This task force produced a white paper, "Research for an Internationally Competitive Regional Economy," in 1993. The paper identified characteristics of an internationally competitive regional economy. The drafting committee followed up by identifying benchmarks for the Twin Cities in financial and technical assistance, transportation, information, and communication resources, and attractiveness to foreign visitors and investors.*

- **Hennepin International Trade Services (HITS).** This group of public- and private-sector executives, convened by the County, has prepared a strategic direction for international business expansion in the

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336 Citizens League, *Minnesota's Budget Problem: A Crisis of Quality, Cost and Fairness,* 1993.

337 In the lists that follow, items indicated with * have been excerpted verbatim, with permission, from: Minnesota Department of Trade and Economic Development, Minnesota Trade Office, *Minnesota and the Global Community,* February 1996, pp. 17-19.

metropolitan area with Hennepin County at its core. The group has said that the region is increasingly dependent upon international business, is falling behind its urban competitors, and is at risk of being marginalized in the global economy. The group's Strategic Direction, adopted by the County Board in October 1995, called for a new civic partnership to establish a vision of global competitiveness and set a goal of $20 billion in exports by 2000. The County Board subsequently appointed an International Competitiveness Task Force to prepare action steps. A report from that task force is expected to be presented to the board in autumn 1996.

- **Metropolitan Airports Commission: Global Access Development Committee.** This task force, composed of representatives from local businesses, airlines, freight forwarders, and export-import companies, has been charged with determining how best to meet the area's international air service and aviation infrastructure needs in a global economy and community.*

- ***Twin Cities Industry Cluster Study,* Metropolitan Council and Humphrey Institute.** This study, published in July 1995, examined the competitiveness of four diverse industries in the Twin Cities environment.*

- **U.S. Department of Commerce, International Trade Administration/Minnesota District Export Council (DEC).** The Administration conducted a survey of the DEC's members in January 1993 to identify concerns related to economic competitiveness, then held a forum in Little Rock (Ark.) in January 1994 to discuss the issues identified in the survey. In 1994, the Minnesota and Arkansas DECs jointly issued a report of recommendations, based on these findings, for federal policies and actions to make the U.S. more competitive.

Private sector and public-private initiatives include:

- ***Building Our Future,* The Greater Minneapolis Chamber of Commerce.** This is a multi-year regional development planning and implementation initiative, with an emphasis on the creation of quality jobs and ownership opportunities as the Twin Cities area competes as one region in the global economy. A *Building our Future* report of situational analysis, goals and strategies defined by several task forces, was published in 1995. The implementation component of the initiative, a youth apprenticeship program for high school students in the financial services industry, was launched in fall, 1995.*

- **The DFL Business Task Force.** This task force was convened by the DFL Party in 1993 to advance the public policy debate about economic competitiveness. The task force said that "Minnesotans will suffer mightily if we cannot resolve the high-profile problems of business property taxes and workers compensation and move beyond negativism over 'business climate' to focus attention to the issues...that must be addressed if we are to prosper in the future."

- **The Humphrey Institute's State and Local Policy Program.** The Humphrey Institute in 1994 conducted a series of roundtable discussions throughout the Upper Midwest on emerging strategies in economic development. The participants in these discussions identified ten principles that should guide new regional development efforts.

- ***Keeping the Competitive Edge: Positioning Minnesota for a Future in the Global Marketplace,* Minnesota High Technology Council.** The Council's 1995 white paper suggested that Minnesota's pre-eminence in information technology might evaporate unless the state creates an integrated communications network. The paper outlined an action strategy for maintaining global competitiveness.

- **Minnesota Business Partnership.** An alliance of the state's leading 100 companies involved in lobbying for business interests, the MBP has been particularly active in recent years in addressing issues of training for the jobs of a global economy.*

Many of these efforts to develop regional strategies have been thwarted by the "balkanization" of the metropolitan area, which has spawned a great deal of intra-regional competition for development and encouraged the pursuit of parochial interests.
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Compete Globally,
Thrive Locally

What the Public Sector Should Do
To Help the Greater Twin Cities Region Prosper

What Should We Do?

Facing the Challenges

What's the problem?

The greater Twin Cities region appears to be in good economic shape today. The signs of good health—strong incomes, low unemployment, brisk economic growth—are undeniable. The region's history of adapting readily to changed economic circumstances gives us cause for hope that the future will be bright. We also are encouraged by the strong economic performance of the smaller growth centers in the Upper Midwest, and the opportunity this growth represents for the greater Twin Cities region as the economic center of the multi-state region.

Despite the present good news, however, the region can't assume that continued prosperity is guaranteed. The prosperity we have enjoyed until now was in part the result of unique and favorable geographic, historic, political and demographic circumstances.

Many of these favorable circumstances already have evaporated. There is no guarantee the others will continue. The Twin Cities region, like the rest of the U.S., can no longer expect the comparatively easy success of the post-war era, when demand was booming and America faced little competition. Other urban regions in the U.S. and abroad are striving to be competitive. Their gains are not infrequently outpacing our own.

Globalization, technological advancement, changes in markets and increased competition will mean that doing "pretty well"—even improving—won't necessarily be good enough to secure the future we think Twin Citians want. For at least some activities, the Twin Cities must represent the *best.* Companies, individuals and government will have to work harder than they have in recent decades to create the conditions required for prosperity.

The Twin Cities' historic affluence and its well-earned reputation as one of the best places in the country have, we think, led to complacency. We continue to believe that we're on top of the world, but we are deluding ourselves. Unless we awaken to this fact, our future prosperity will be in jeopardy.

Likewise, the ways the public sector helped the region to achieve its past success might still work in the more international, competitive and technologically advanced economy—or they might not. The region runs a big risk if policymakers and citizens don't ask whether our public services are meeting today's challenge. The lesson of history is clear: Nothing fails like success.

We are concerned that **certain trends point to trouble ahead.** In particular:

- **We are concerned that the region's international trade is growing more slowly than other major metropolitan regions** and that the region is perceived as "insular" rather than "international." With the fastest-growing markets overseas, and with competitive advantage increasingly a matter of "thinking globally," the Twin Cities region cannot allow itself to turn its sights inward.

- **We are concerned that the region's well-educated, diligent workforce is losing its competitive edge.** Already GDP per worker—one measure of productivity—in France, Germany, Japan and Italy exceeds the GDP per worker in the U.S.[338] And while labor productivity is affected by many factors, including capital investment and management technique, research has shown that improvements to human capital have a bigger effect on productivity now than do improvements in physical capital.

  Even the recent good news from the National Science Foundation, showing that Minnesota students are doing as well as students in South Korea, offers scant comfort. Urban regions in South Korea, Chile, India, Thailand and across the globe now have well-educated workforces whose wages are much lower than wages here. Many of these regions are investing heavily in *advanced* education and workforce training in fields that have been important to the Twin Cities.

  What does it matter if our students are better at math than students in Mississippi, if they are barely keeping up with their peers in South Korea, where wages are one-tenth of wages here? It is small consolation that the Twin Cities has a lot of bright software designers; so does India.

  In the future, the greater Twin Cities region, with its relatively high costs, will have to offer a state-of-the-art workforce with *specialized* productivity advantages in key activities and industries.

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338 Candace Campbell, *The Future of Work in Minnesota: Connecting Workforce and Economic Development Policy,* (June 19, 1995 draft), p. 3. Data from OECD.

- **We are concerned that the region is behind the curve in embracing information and communications technologies.** With the passage of the federal Telecommunications Act of 1996, the newly-deregulated telecommunications market will explode with innovation. Headquarters operations and several of the Twin Cities region's key industries—printing and publishing, financial services, and software, to name just three—are increasingly relying on advanced information technologies.

  The public sector in Minnesota does not yet have a strategy for addressing such issues as access and pricing, nor is there a process for leveraging public and private investment to attain a critical mass of physical infrastructure and the skills to use it.

  (As this project was being completed, Governor Carlson announced the creation of the Minnesota Office of Technology and his appointment of John Gunyou to provide leadership to the state's telecommunications efforts. We are encouraged by this step and note that the effort will need strong support if Minnesota is to catch up with other states.)

- **The "quality of life" in the Twin Cities region has become more like that of other big cities—and we think that is a big loss.** In the past, the region has overcome many other disadvantages by offering a collection of attributes that could be—and often was—called the "good life:" pleasant neighborhoods, lots of cultural amenities, an air of civility, a "can-do" approach to problem-solving, creative public and private leadership, and a commitment to the mutual obligations among families and communities.

  These qualities—not just the region's per capita income or the state's GDP growth—have made the Twin Cities prosperous in the fullest sense of the word: A place where people together enjoy a good life, rather than a place where people simply have incomes high enough to buy the trappings of "the good life."

  Over and over again we heard our resource people say that the "good life" in the greater Twin Cities region doesn't seem as good as it once was. We share that perception. The warning signs include not only the more obvious and alarming ones, such as the 1995 record homicide rate in Minneapolis.

  Equally troubling is the fact that poverty has deepened and become more concentrated in the central cities and inner-ring suburbs. A significant share of citizens of color are chronically unemployed and discouraged, and therefore aren't counted in unemployment figures.

Parents, even middle-class parents, are spending less time with children, neighbors, and school and community responsibilities. Public discourse is less civil, politics more dominated by interest groups. Corporate executives, under ruthless competitive pressure, are less deeply engaged in the Twin Cities' regional concerns.

Tight public budgets are straining the ability of the public sector to maintain current services, let alone invest in the public amenities that will make the greater Twin Cities region attractive in the future. In the 1880s, the Minneapolis Park Board acquired the land for the city's now-famous Chain of Lakes parks; in 1995, the grass in the parks went unmowed for much of the summer.

Taking care of the Twin Cities social fabric isn't primarily the job of the public sector, but of families and neighbors, churches, businesses, and religious and civic associations. Government policies and services can contribute to the region's community well-being, or undermine it, however. Some of Minnesota's state and local policies have contributed to the problem. Land use and transportation policies that have encouraged suburban sprawl, for example, have contributed to worsening concentration of poverty and social problems in the core cities, a pattern that has been shown to undermine the long-term economic health of metropolitan areas.

Two other trends concern us even though they aren't unique to the greater Twin Cities region. First, Americans' record of saving and investment is dismal and, while there are no state-by-state data, we suspect the record of Minnesotans is, at best, only slightly better. Left to their own preferences, Americans can be expected to under-invest in the intellectual, financial and physical foundations of prosperity. Minnesota's public policies encourage this tendency. The effects—such as when more than half of the state's parents fail to save anything at all for their children's college education—damage the future well-being of the metropolitan region.

Second, we are concerned that the Twin Cities region, like the rest of the U.S., has not come to grips with the expansion of the service sector. Some of the increase in service activity is likely both inevitable in a global knowledge economy and, we think, desirable. Some of the increasing share of dollars being spent on services might be neither inevitable nor desirable. The fact that it is difficult to sort out which is which should not deter citizens and policymakers from trying. The size of the service sector is becoming too large to overlook the its implications for the overall productivity of the economy.

Third, we are concerned that the "safety nets" to protect workers from job disruption don't fit the new economy. While the evidence isn't conclusive, there is some indication that competitive economies tend to be associated with a slightly higher degree of economic insecurity and inequality. That tradeoff—slightly less security for better long-term income growth—seems to have held in the Twin Cities. The region's historically fast rate of job "churn" appears related to its remarkable ability to grow and adapt.

We think the greater Twin Cities region has a special interest in preserving that remarkable record by encouraging citizens to embrace rather than resist change. The region thus also has a stake in making sure that there are appropriate safety nets to protect people from financial devastation when change occurs.

Many of the region's most troubling trends are related to the core responsibilities of state and local governments. We are especially concerned about:

- The widespread perception among employers that—notwithstanding the National Science Foundation's optimistic news—**graduates of Minnesota's elementary and secondary schools are not adequately prepared for work.** Basic skills are too often missing, and conventional credentials such as diplomas and even college degrees don't indicate the presence of relevant competencies.

- **The declining standing of the University of Minnesota.** If the institution is allowed to slip, or even to stand still while others make impressive gains, the Twin Cities region will feel ripple effects for years to come. Our capacity to attract the best and brightest minds from throughout the U.S., to innovate in the industries we have and to grow new industries, will diminish.

- **The region's shortsightedness in infrastructure investment.** The greater Twin Cities region is facing major decisions about its physical infrastructure that involve huge potential financial commitments and will lay the foundations for our economic life for at least thirty years. There isn't a coherent process for evaluating the investments as pieces of a larger economic strategy for the region, however. There is little opportunity to consider the opportunity costs each poses to the other or choose the best mix of projects.

  Even more troublesome, the region does not have an image of a comprehensive modern infrastructure. For example, we're patching on to an extensive, expensive inherited system of farm-to-market roads and sprawled commuter highways, when the future may have more to do with videoconferencing, international air freight and intermodal shipping.

Developing and implementing a coherent infrastructure strategy is complicated by the reality that some parts of the present system (such as highways) are governmentally operated, others (such as railroads)—are owned and operated by private businesses, and still others (telecommunications) are privately owned but publicly-regulated. Policymakers recently asked, for example, "should we spend $2.8 billion to expand the current airport, or $4 billion to build a new one?" rather than "If we have $2 billion to spend on infrastructure, would it best be spent on airport improvements, broad-band telecommunications lines, a new intermodal terminal, or expansion of certain highways?"

Because resources are limited, they must be focused on the investments that offer the best returns in productivity improvement, and a unique competitive advantage. Without clear objectives and a better idea of how proposed investments can achieve them, we risk making some very expensive mistakes.

- **The inability or unwillingness of Minnesota's state and local governments to face up to the new fiscal realities.** Demographically-driven demand for public services has already led to dramatic reallocation of general fund spending. In 1987, Minnesota spent about 50 percent more on post-secondary education than on health care. In 1995, the state spent almost 60 percent more on health care than on post-secondary education. This shift in the state's priorities occurred, for the most part, as a result of formula-driven spending programs and without an explicit discussion about priorities.

  The greater Twin Cities region faces the need for significant resources to build for its future at the same time as revenues needed to finance current public services are becoming tighter. **If Minnesota's state and local governments do not protect their investment responsibilities—particularly post-secondary education—from encroachment by current consumption—chiefly health and long-term care spending—we will unwittingly "eat our seed corn."**

  More productivity will be required from *all* public services, from schools to drivers' license bureaus. The most dramatic changes will be needed in the areas driving the biggest increases: health care, corrections and K-12 education. Yet the Legislature and the public institutions themselves have tended either to ignore the fiscal realities or respond with marginal changes. **Failure to face the fiscal challenge will hamper the region's ability to take charge of its future.**

One of the region's biggest problems is that there is no comprehensive strategy to guide decisions and public spending on activities that shape its long-term economic health.

We agree with one observer who said that "global competition is not just product versus product, company versus company, or trading bloc versus trading bloc. It is mindset versus mindset."[339]

Strategy is becoming more important to regional competitiveness, the accidents of natural resources and geography less so. Strategy begins with a vision of what a region has been and what it can—and should—become. In the Twin Cities region, there is neither a coherent strategy nor a shared vision to motivate one.

None of the current processes in place to address competitiveness concerns provide a legitimate, coherent voice for the real Twin Cities economic region as a distinct urban region on the global stage.

- The Metropolitan Council is the regional planning organization for the Twin Cities region. But its jurisdiction only encompasses seven counties, whereas the "real economic region" includes around 24 counties, including several in Wisconsin.

- Municipal governments now view one another more as competitors than as partners in the future prosperity of the region as a whole;

- Policymaking and planning for education—the state's most important economic development responsibility—is carried out by the University's Board of Regents, MnSCU, the state's Department of Children, and countless local school districts. The planning is done separately and with little systematic private-sector involvement, despite the fact that the Twin Cities region functions as one labor market.

- There are many good private-sector efforts under way to address competitiveness concerns. But few of these efforts are truly regional. And there are no ongoing processes to allow public policymakers and industry leaders to think together about public priorities *across* systems—considering, for example, how transportation, education, on-the-job training, telecommunications and land use strategies might all work together to enhance the region's competitiveness.

More money won't easily be found for major new public spending on economic development. The public sector can expect fewer resources and more claims on the resources it does have, while the private sector can expect ever-more intense competition. The answer must be to reallocate the dollars that are available and make more strategic use of them. That will require that

339 Gary Hamel and C.K. Prahalad, "Strategy as Stretch and Leverage," Harvard Business Review, March-April 1993, p. 77.

state, regional and local governments spend less on so-called "economic development" activities that do little to improve the region's productivity.

The region must invent a new system for thinking about and creating long-term, regional economic strategy.

In the past, the Twin Cities region's shared values, beliefs and social ties meant that "we didn't have to have a strategy, because we all agreed about what needed to be done." The "smoke-filled room" method, in which a handful of community and business leaders often decided regional matters among themselves, worked pretty well when a high degree of consensus could fairly be assumed.

But the smoke-filled room can no longer be the region's *modus operandi.* For one thing, there simply are fewer business and community leaders with roots as deep and investment as personal as that earlier generation of leaders. We regret that trend, while sympathizing with the very real pressures today's business people face.

For another, citizens and the political process itself will no longer allow key decisions to be made by a small group of business and civic leaders, however well-informed and civic-minded they might be. Increasing racial and cultural diversity mean that consensus about important questions can no longer be assumed. And the public now expects a more open, inclusive decision process.

The danger the greater Twin Cities region faces is that neither the old way of dealing with regional challenges—the smoke-filled room—nor the present processes—which emphasize parochial interests—are equipped to lead us forward in the global economy.

Summing up

Today, the region is short on understanding how it fits in the emerging global economy. We've allowed key contributors to our region's brainpower—the University of Minnesota and our K-12 system—to slip. Indeed, in many of government's core economic development functions, the public sector hasn't delivered good enough results, and in the future, will have to do better.

Meanwhile, some of the less-tangible generators of future prosperity are in jeopardy. We're buying too much stuff and not saving and investing enough in our future. We've allowed our quality of life to deteriorate. And while the old safety net seems to be fraying, we haven't come up with a better one.

We're overconfident, and we have no strategy. That's a potentially lethal combination.

What Should We Do?

The Twin Cities metropolitan area needs an understanding of the region's historic niche in the world economy, a vision for our economic future, and a strategy to get us from here to there.

The region can no longer take for granted its position as the preeminent center of business, academic and cultural activity in the Upper Midwest. It will have to work harder than in the past to prosper and, because public resources will be tighter, the public sector will have to be strategic in its attempts to develop the region's unique competitive strengths.

In the rest of this report, we:

- say how the Twin Cities region should be **positioned;**
- offer a **six-point agenda** for the region's economic future;
- discuss what the **public sector** can do.

In the following several pages, we frequently make statements that begin "the region should..." Readers might ask: Whom do you mean by "the region?" Citizens of the region? Government? Do we mean that government should declare by fiat what businesses and citizens in the region should do?

For the moment, we beg the reader's indulgence and sidestep this legitimate question. In describing the six-point agenda, we temporarily refer—admittedly vaguely—to "the region" as an organic economic whole. Certainly the different players—businesses, citizens, workers, government and social institutions—each have distinct roles in the regional economy.

But increasingly it appears that urban regions must view the whole of the economy as more than the sum of the activities of the individual players. The secret, if there is a secret, might be in discovering where the separate interests of firms, individuals, social institutions and government intersect. In the section of the report beginning on page 137, *What The Public Sector Can Do*, we describe in more detail what government's role and responsibilities should be in this emerging global-regional economy.

Compete Globally,
Thrive Locally

What the Public Sector Should Do
To Help the Greater Twin Cities Region Prosper

A Six-Point Agenda for the Economic Future of the Greater Twin Cities Region

Defining the Region's Niche

Building from strength

One of the legacies of globalization is that urban regions must ask: How can we make location count in a world where advantage is decreasingly a matter of natural resources and physical geography? For a smaller urban region, particularly, being competitive requires an explicit strategy that identifies and builds on the region's niche in the global hierarchy and develops its unique, specialized advantages.

The greater Twin Cities region can and should become a world-class city region with an important global presence by capitalizing on its own history and seizing the opportunities of the global information economy.

The region's prosperity is firmly rooted in its role as the commercial, financial, intellectual and cultural center of the Upper Midwest. The presence of many headquarters companies has also been one of the sources of the Twin Cities' success. And the region is fortunate to be home to several world-class industries—printing and publishing, computer software, medical devices, finance and several others. These industries are on the cutting edge of their fields, generate good jobs and spawn countless other innovations that represent the seeds of our future prosperity.

The Twin Cities region is not likely to be in the top tier of global "nerve centers" such as New York, Tokyo or London. Nor is it suited to becoming a "gateway" city in the way that Miami has become for Latin America and San Francisco and Seattle for the Asian Rim. But we don't need to be either in order to have a prosperous future. Instead, the region should concentrate on developing and enhancing its own strengths.

Positioning the Twin Cities region

The Twin Cities region should develop the advantages required to strengthen its position as a hub for international business services linking the smaller cities in the Upper Midwest with the global marketplace and vice versa.

The major market for firms in the Twin Cities is likely to remain the U.S. International trade is a fast-growing and strategic sector, however, and the ability of firms to function in the international sphere is becoming more important to the competitiveness of firms and regions. A variety of geopolitical developments—NAFTA, the U.S.-Canada Open Skies agreement—are opening new opportunities for international linkages.

International activity is increasing in the Upper Midwest. Indeed, non-agricultural export activity is increasing faster in Greater Minnesota than it is in the metropolitan area, largely because manufacturers, who export more than other industries, are tending to locate away from the Twin Cities core. The greater Twin Cities region should capitalize on the opportunity these trends represent by focusing on the international "connection" services these businesses require—services such as freight forwarding, translation and international legal, banking and accounting services.

The Twin Cities metropolitan region should explicitly choose a strategy that builds the advantages needed to support business headquarters and research & development activities.

As companies pull apart their functions and become more strategic about their location decisions, policymakers must be aware of how businesses think, and must think about what steps are appropriate for the *public sector* to take. It will become more important for urban regions to offer specialized advantages supporting at least one of the main business functions—headquarters, R&D, production or back-office.

The Twin Cities region's history is as a home for headquarters, and it has long been a hospitable breeding ground for new technologies and industries. The region should build on that history.

Companies do not tend to move their headquarters readily from elsewhere. The task is not to attract headquarters and R&D from elsewhere, but to provide the public services and encourage the private networks that will keep those that are already here and enable them to grow.

Equally important is providing the public services that support the development of new enterprises. The Twin Cities region historically has experienced a rapid turnover of businesses and industries and, in the future, can expect to "lose" some of its corporate headquarters as a result of merger or acquisition. Government is not likely to be able to stop that process. It can, however, continue to make the region an attractive place for many headquarters *functions*, such as market research and finance, and must pay attention to the conditions that spawn new firms and industries.

The region has an opportunity to develop a global presence by virtue of its world-class industries, and should strategically develop specialized productivity advantages in these industries.

Competitive advantage is increasingly occurring in clusters of related industries and activities. A "critical mass" of firms in an industry spawns industry associations, attracts specialized talent, and generates a high level of competition among firms that in turn fosters an environment of innovation. The region should consciously build on the competitive advantage these industries already represent.

This strategy is not the same as "picking winners" from among individual companies, or choosing industries that are deemed by some objective criterion to be strategic (microprocessors, for example). The strategy is to identify the all the key industries or activities that have achieved a critical mass of firms, suppliers, markets and supportive infrastructure in the region, then pay close attention to the specialized infrastructure, education and regulatory needs of these industries.

In addition, an industry cluster approach can help the public sector focus its recruitment efforts on companies that would magnify that critical mass. For example, a company that supplies components or materials used in the production of medical devices would be a more desirable new recruit to the Twin Cities region than, say, a company that breeds tropical fish.

The strategy should preserve and encourage economic diversity by industrial sector. Once of the sources of the Twin Cities' economic prosperity has been its balanced economy. The diversity of the economy shields the state and region from major dislocations and large cyclical swings. The balanced mix may also partly explain the state's ability to adapt quickly to major industrial shifts. Many analysts warn that an economy abandons core production at its peril; an "idea" economy can't function long unless it also maintains basic expertise in making things.

Manufacturing is and should continue to be an important sector in the greater Twin Cities region. But the Twin Cities region should focus on manufacturing of high-value-added, innovative products—the application of the "D" in R&D—and pay special attention to exporting manufacturers.

Manufacturers of commodity products—the generic widgets that anyone can make—are extremely sensitive to costs. These firms are increasingly able and willing to locate their production plants in areas that minimize costs. The greater Twin Cities region's distance from markets and higher labor costs make it less attractive as a center for commodity production and back-office activities. And because those jobs are generally associated with lower wages, they don't represent the best future for the citizens of the region.

High-value, export-oriented manufacturing, on the other hand, brings new dollars into the regional economy, is generally associated with higher-paying jobs, and is likely to find advantages in the Twin Cities region that outweigh the region's higher costs.

A word about not-for-profits

We should note that the world-class industry clusters can be made up of private companies, non-profit corporations, or a combination of both. For example, one of the Twin Cities region's industry clusters, the performing arts, is distinguished by world-class not-for-profit institutions such as the St. Paul Chamber Orchestra. Similarly, we note that many important headquarters operations in the Twin Cities, such as the Billy Graham Association, are not-for-profit organizations.

Implications

Defining the greater Twin Cities region's niche helps to focus the strategy. Rather than trying to be all things to all people, the region prioritizes its activities and expenditures to build on its competitive advantages.

What does it mean to define the region's niche in the way we have described? Briefly, the needs of **headquarters and R&D functions** include:

- a highly educated workforce, top-notch industry talent and leading-edge thinkers, and the quality of life these workers demand (cultural and recreational activities, a reasonable cost of living, and pleasant and safe communities);

- a premier research university, excellent air service, extensive business support services, and capital markets;

- the presence of industry associations and networks, clusters of specialized talent, and an environment that embraces innovation.

As the **regional capitol** of the Upper Midwest, the Twin Cities region must pay attention to its relationships with other urban regions in the U.S. and world. Chicago, for example, is the Twin Cities' closest global "nerve center" and one of the region's most important links to the global stage. Likewise, Detroit, because of its importance as Northwest Airlines' international hub, should be considered an important link.

The region needs to consider key *international* linkages and what form they should take. The Twin Cities' historic role as the shipping crossroads of the Upper Midwest will remain important. However, as information linkages become relatively more important than physical linkages for many activities—especially the headquarters and R&D activities—the region's information infrastructure will be crucial.

A Six-Point Agenda

To be a center for headquarters and R&D companies, the international business service hub of the Upper Midwest, and a center of key world-class industries, the greater Twin Cities region will need to attain **six critical success factors:**

1. A highly talented, productive and innovative workforce.

2. Strategic infrastructure to support headquarters, R&D, international business services and key industry clusters.

3. Improved productivity in services, trade and government.

4. More saving and wiser investment in the foundations of future prosperity.

5. A high quality of life and healthy civic and social fabric.

6. A better safety net for workers to deal with new economic realities.

Critical Success Factor 1

A Highly Talented, Productive and Innovative Workforce

The greater Twin Cities region's future depends on the skill, innovation and industriousness of its workforce more than on any other factor. A diminishing share of the value of final products is accounted for by the value of the raw materials that went into the product. Knowledge and innovation are providing the greater share of value—and the competitive edge for firms. Companies will always do what they can to reduce costs, but cost control will no longer win the game.

Competitive advantage for firms comes from constant innovation and upgrading. Competitiveness for regions is a matter of superior productivity performance and rising real incomes. For both firms and the region as a whole, knowledge has become the key strategic resource.

The workforce must be a central concern if the region is to become a center for company headquarters and R&D functions, a site of world-class industry clusters and a hub for international trade services. All of these activities require well-educated and trained workers at the cutting edge of their fields.

The region's top workforce priority should be the ongoing training and re-training of adults aged 17 to 80 who are already in the Twin Cities workforce.

Because most of the Twin Cities' future workers are already in the workforce, investing in existing workers offers the biggest productivity returns.

The region's labor market is already tight. Long-term population trends mean that the labor force won't grow. The baby-boom generation, which now dominates the workforce, is aging. With impending threats to the public pension system, and with people living healthier lives well past middle age, we can expect workers to stay employed later in life than they have been in the recent past.

The region can no longer rely on young people to refresh its skill base, since there simply won't be as many young people in the labor force as during the postwar boom. Employers must pay greater attention to the ongoing skill development of their present workers.

Developing the skills of the current workforce also offers the best opportunity for the greater Twin Cities region to provide *specialized* workforce advantages. People already employed can be presumed to have good basic skills, so attention can be focused on advanced, cutting-edge skills that are unique to this region, its industries and citizens.

Employers have an important role in the lifelong training of adult workers, and they should be encouraged to do more to deepen the skills of their workers. Employers have the most to gain by developing highly specialized, advanced skills among their workers, because these skills are often unique to their businesses. Because this study focused on the public sector role, we say little here about what employers should do alone; instead, we focus on government's role, and will discuss later in the report how businesses and government might collaborate more closely.

Having a bright, competent new crew of young workers won't be sufficient to establish the Twin Cities as a high-skill, high-productivity, high-innovation workforce. The share of workers in the 45 to 64 age group expected to grow by 88 percent between now and 2020, so there will simply be too many older workers for the younger entrants to make the decisive difference in overall productivity. The region and its employers must pay attention to people who are already in the workforce.

The region's second workforce priority should be preparing young people to enter the world of work.

Younger workers age 16 to 24 will account for a slightly smaller share of the state's workforce in 2020, than they do today. But while these young workers will only be a small share of the labor force, they will in the labor force the longest. If they are to develop advanced skills, they must first of all be able to read a computer manual, figure a sales tax or explain a production problem to a co-worker. If young workers don't have a basic foundation of literacy and mathematical competence upon which to build their skills, the long-term damage to overall labor force productivity will be enormously costly.

Employers have consistently said that their most important requirement is that entry-level workers have solid basic skills—reading, writing, communication, computation and positive work attitudes. Employers want "not trained workers but trainable ones."[340] This is the primary responsibility

340 "Learning to Cope," *The Economist*, April 6, 1996, p. 13.

of the public sector; as the required skills become more advanced and specific to a particular business, employers have more self-interest in providing training, and should have more responsibility for doing so.

Public-sector institutions will have to do a better job of preparing young people to be competent entry-level workers. And they will have to do a *much* better job with students of color. The current record among students of color is lamentable for reasons of social equity. But the record also must improve for economic reasons as well—because after 2015, *all of the increase in the size of Minnesota's labor force will come from nonwhite workers.* The region cannot afford the academic failure of 50 percent or 60 percent of the group that will be the only source of additional workers.

The region's third workforce priority should be attracting the "best and brightest" young adults from throughout the U.S. and abroad to the Twin Cities, and keeping our brightest young adults here. A constant infusion of leading-edge thinkers with cosmopolitan perspectives creates the conditions that foster excellence, industry innovation and internationalism. The Twin Cities must be a place that attracts the most talented, promising young adults. And bright, academically talented young people who grow up in the Twin Cities should have a reason to want to stay here. "Talent magnets" occur increasingly as a result of the presence of world-class industry clusters.

What about people who are harder-to-employ? If the region does a good job at the first two priorities—ensuring that all young people get a good basic education, and prodding adult workers and employers to sharpen their skills continuously—the numbers of the "hard-to-employ" should reduce. People who are now chronically unemployed or underemployed represent a small share of the population, so their productivity isn't definitive. Nevertheless, society has an interest in maintaining labor-force attachment and economic opportunity—for reasons that have to do with social cohesion.

There are some good efforts under way in the Twin Cities region to meet the specific needs of this group of workers. More will be needed. The challenge is an important one, and the issues beyond the scope of this report.

But we caution: Neither citizens nor policymakers should deceive themselves that a competitive workforce can be achieved simply by improving the skills of those relatively few individuals who are now on the fringe of the labor force. The *existing* workforce, basically well-educated citizens already in "good jobs," must be challenged to upgrade their skills.

Action steps: Post-secondary education

The state and region's policies should be designed to:

- **Clearly differentiate the missions** of the public higher education systems to make the best use of available resources.

  The state should provide broad access to liberal arts education via the community colleges, and advanced academic education at the state universities. The technical colleges should focus on advanced, specialized technical and vocational education.

  The state should give top priority to getting the University of Minnesota back in the ranks of the best research universities in the U.S. Focus the University's efforts on developing a demanding undergraduate and graduate education program, a highly selective student population, a highly talented faculty and a world-class research program. Forge a stronger role for the University as an incubator of new technologies and contributor to research that leads to a better understanding of the region's economic future. The University should concentrate on attracting the "best and brightest" students and faculty from the U.S. and abroad.

- **Reverse the decline in higher education's share of the state budget.** The public sector must see to it that more, better, and more flexible education and training is available to an expanded, older and more diverse population. The grim reality is that without much more money in the state budget overall, education institutions will have to be more innovative and productive. Because higher education has already absorbed much of the state's belt-tightening, however, it should be protected from further encroachment by other spending areas.

- At whatever level of higher education appropriations, **provide a greater share in the form of need-based financial aid.** In a globalized, high-technology, information economy, post-secondary education has become the critical determinant of workers' long-term earnings and mobility. Given this reality, the Legislature cannot justify providing large amounts of aid to make college less expensive for middle- and upper-class families, while failing to make post-secondary education affordable to students from poor families. Low-income students must know that post-secondary education is an option if they do well in high school, and that their poverty will not be a permanent barrier to economic advancement.

- **Develop a broad, statewide model for a "virtual university" that will transform the delivery of higher education.** Electronic education media offer a promising route to meeting the increased demand for post-secondary education. The Open Learning Agency of Vancouver (B.C.), the City College of New York, the Open Learning University of the UK and the proposed Virtual University of the West (now being studied for feasibility) are models for such ventures.

Minnesota's Legislature has taken some steps toward expanding the use of electronic technology in higher education. With Legislative appropriations, Minnesota's State Colleges and Universities (MnSCU) and the University of Minnesota are developing programs to use electronic media, such as television and the Internet, to broaden access to instruction. For the most part—mostly as a result of Legislative directives—these efforts have been campus-based programs that use technology to deliver traditional instruction to more people.

The Legislature should initiate development of a state-level vision for how advanced technology can radically overhaul the productivity of post-secondary education and meet the needs of the region and its workers for lifelong learning. The Legislature should not concern itself with specifying the particulars of the delivery system but focus instead on specifying the goals and creating the broad policy framework for achieving them. For example, the Legislature, regional policymakers and the higher education systems must address such issues as organizational forms, governance and accreditation of programs.

- The public sector should **collaborate with employers to develop specialized workforce training for key activities and industries.** The public sector's interest should be in developing advanced workforce competencies that are relevant to *whole clusters of industries,* not just particular companies. (The section beginning on page 143, *Some Controversial Ideas for Remaking Public Education,* will elaborate on some unusual strategies the public sector might consider.)

Action steps: K-12 Education

- **Give strong support to Minnesota's graduation rule.** The State's Department of Children, Families and Learning has completed the task of defining basic skills in reading, writing, and mathematics, has designed measures to assess achievement and conducted the first round of testing on reading and mathematics skills; still to be developed are measures of basic reading skills.

  The Department of Children has also defined standards for achievement in the higher skills that comprise the "Profile of Learning." The Department is now field testing these measures, training teachers and exploring how students and school districts should be held accountable for performance on the measures.

As they implement the "Profile of Learning," we urge the state and local school districts to choose and hold districts and students accountable for achieving rigorous, world-class standards.

The Department of Children has defined what competencestudents should have in higher levels of academic inquiry, beyond the basic skills in reading, writing and mathematics. That was a professional judgment.

It remains to school districts—and ultimately the voters in each school district—to decide how well students will be required to perform on these standards in order to graduate from high school. That is, in large part, a political judgment.

We think citizens ought to require Minnesota's high school students to achieve competencies that meet global standards. Today's workplaces demand advanced literacy; even students who are not bound for four-year colleges must now have strong math, science, reading and communications skills to get and keep a job. Minnesota students, whose adult wages will be high by global standards, can't afford to be less well-educated—or only *just* as well-educated—as their best global peers.

Local citizens must hold their school districts accountable for meeting high educational standards. Districts and the state will have to confront the challenge of remediation for students who have fallen behind. And, we think, students and their parents must assume greater accountability as well. **Schools should be permitted to fail students who don't meet standards.**

We urge the Governor, Legislature, Department of Children and school districts to make a strong commitment to moving ahead to implement the graduation rule.

- **Put greater emphasis on foreign languages and world geography.** Increasing international ties—and a regional strategy to capitalize on an international role—are making international literacy increasingly important.

- **Create systematic links between schools and workplaces,** by improving vocational counseling for secondary students and by offering more internships, apprenticeships and other business-school partnerships. Make the transitions between school, work and post-secondary education smoother.

- **Put greater emphasis on technical careers.** The Twin Cities region, as other metro areas, will see continued increases in the number of promising, well-paying jobs that require post-secondary vocational and technical training rather than four-year college. Secondary schools should improve their technical curricula and vocational counseling to encourage more students to pursue such careers.

- **The public sector should require or encourage a greater degree of individual responsibility for learning.** Students and parents should be encouraged to take advantage of the educational opportunities that currently exist.

Other Action Steps

- **Encourage adults who are already in the workforce, as well as students, to learn foreign languages and become familiar with other countries.** A widespread facility with languages and cultures will be essential if Twin Cities is to be a center of international business services.

  Many resources already exist in the Twin Cities. For example, the University of Minnesota's Foreign Language Immersion Program is considered a national leader in foreign language instruction for non-language majors, many of whom are working adults. The greater Twin Cities region is home to a plethora of non-profit organizations making international connections—the Minnesota International Center, Minnesota-Uruguay Partners of the Americas, and the Japan America Society of Minnesota, to name just three. These and many other resources could be engaged in a strategy to improve the internationalism of the region.

- **Pay attention to quality of life and cultural amenities.** Attracting and keeping top-caliber workers who are on the leading edge of their industries requires that the region offer a pleasant and attractive environment.

Critical Success Factor 2

Strategic Infrastructure

Providing good public infrastructure has been one of the principal responsibilities of state and local government. The Twin Cities region's infrastructure is generally well regarded. However, anticipated pressures on federal and state budgets will mean that the Twin Cities will face a tough challenge just to maintain a good general infrastructure.

And in today's economy, good general infrastructure will not be enough to establish a competitive edge, because most U.S. urban regions now have good basic infrastructure. Many emerging economies overseas—Singapore, for example—have invested heavily in state-of-the-art, specialized infrastructure.

Policy makers in Minnesota and the Twin Cities should ask: What investments in infrastructure will best support a strategy that positions the Twin Cities region as a center for corporate headquarters, R&D and international business services in the Upper Midwest? What do the region's key industries—medical devices, printing and publishing, finance, machinery, software and others—require in the way of infrastructure?

Equally important, what marketing, services and knowledge will be needed to support the physical infrastructure?

The scope of this study does not permit us to make detailed recommendations about infrastructure. However, we can offer a few preliminary conclusions about what the region's priorities should be. What follows is our priority list of these critical infrastructure investments.

Top priority infrastructure investments: Our pick

Make the University of Minnesota one of the very best research universities in the nation. The University of Minnesota has been a powerful factor in the Twin Cities historic prosperity. Corporations consider the presence of a first-rate research university to be one the most important factors in choosing locations for their headquarters and research and development functions. Leaders of world-class industry clusters commonly cite their close collaboration with top universities in advanced research and technologies. The Legislature and the University's Board of Regents must take bold steps to reverse the slippage of the past decade and see to it that the University is once again one of the top-ranked institutions in the U.S.

In addition to improving its quality and reputation, the state, region and the University itself should more be more strategic about the University's contribution to research and technology transfer related to the region's key industries.

Move quickly to develop the information infrastructure the region will need to support its niche. The Twin Cities metropolitan region's citizen should be among the nation's most literate, skilled, and comfortable with global electronic communication and commerce. Global information connections should be pervasive in the region, so that our physical distance from markets and global commercial centers becomes a negligible factor. Ideally, visitors to the Twin Cities from elsewhere should remark: "They may be in the middle of nowhere, but they can do just about anything with people anywhere. Information connections are everywhere, and everybody uses them."

It seems likely that the market will provide a good deal of the initiative, innovation and physical infrastructure that will make this happen. The public sector, however, also has an important role to play in cooperation with private telecommunications providers and businesses to develop a critical mass of facilities and skills. The Legislature and government agencies should:

- address the question of how to ensure that the information infrastructure achieves the critical mass and pervasiveness needed for optimum productivity, given the reality that markets probably won't do that in sparsely-populated areas;

- develop the public sector's own information infrastructure in a way that contributes to a the achievement of a seamless information "highway;"

- address the question of how to ensure access to information infrastructure for low-income people; and

- perhaps most important, contribute to developing citizens' knowledge of how to use these technologies and create an environment of incentives that encourages people to learn.

Make sure the proposed expansion of Minneapolis-St. Paul International Airport (MSP) will complement the long-range economic strategy for the region. As the region's international port, MSP is critical to the Twin Cities' future as the international business service hub of the Upper Midwest.

Excellent air service is also a requirement of headquarters operations. Air cargo service is especially important for some of the region's key exporting industries, such as medical technology.

With the decision to expand MSP rather than construct a new airport in Dakota County now final, the region should now look carefully at several other important issues:

- **How will the greater Twin Cities region's air cargo and international air service needs be met?** For headquarters and research and development functions, excellent air service is imperative. For some of the Twin Cities' industry clusters—medical devices, for instance—air cargo service is particularly important. Now, a large share of the Twin Cities' air cargo is being trucked to Chicago's O'Hare airport. Is this situation adequate, and if not, how should the cargo needs of Twin Cities shippers be met—either with expanded capacity at MSP, or by creatively marketing and managing services in order to better use existing physical capacity, or both?

- **What facilities and services must the airport provide if the Twin Cities is to serve as the international connecting point for firms in the Upper Midwest?** Put another way, what will MSP offer that will persuade businesses in Montana to look to the Twin Cities, rather than Denver? Or businesses in Wisconsin from looking to Detroit? *Where* will international passenger links be needed, and how can these links be established or improved? How will or should air service complement other activities to strengthen the Twin Cities' role as an international business service center?

- **Are there specialized air services that would be needed to support the other elements of the regional strategy?**

- **How does Northwest Airlines' hubbing strategy affect the future of air service in the Twin Cities region?** What are the benefits and costs of hub status for the Twin Cities, and how might the public's and Northwest's interests be aligned to achieve public objectives?

- **How can or should the expanded MSP facility support more competition in the local market?** What would be the costs involved in opening the Twin Cities market to greater competition, and what would be the benefits to the public in reduced airfares and/or improved service?

Increase rail-truck intermodal terminal capacity. A shortage of terminal capacity now prevents further growth in intermodal shipping. Removing that bottleneck could allow the Twin Cities to offer shippers an alternative to westward routes through Chicago that could save the shippers up to 10 hours.

A proposal for a shared intermodal terminal, now being developed by the Metropolitan Council, MnDOT, CP Rail System, Union Pacific Railroad and Burlington Northern-Santa Fe—should be carefully evaluated and rigorously debated by policymakers and public. The proposal represents a major potential investment that should be viewed in the context of a comprehensive regional strategy.

Consider highways and transit a competitiveness issue. The metro area needs a strategy to provide and pay for a highway infrastructure that will meet the *future* needs of the region.

Long-term fiscal trends at the federal and state levels are ominous. Transportation spending is growing far more slowly than other areas of state and local government, and not keeping pace with highway maintenance costs. Those pressures are likely to get worse. Meanwhile, the public is demanding more highway infrastructure to accommodate suburban growth, while resisting tax increases, most especially gasoline tax increases.

State and region must come to grips with these trends. This is a competitiveness concern. The danger is that highway and transit infrastructure will be allowed to erode slowly and congestion will mount. For shippers, transportation delays translate to higher costs and competitive disadvantage. For the regional economy, commuting delays translate to lost productivity. The Twin Cities region has one of the shortest commute-times in the nation, so these issues do not seem pressing now. With 650,000 people expected to be added to the region by 2020, however, the region faces the threat of major congestion and delays. As development spreads farther out from the core cities, low-income inner-city job-seekers must have some way to get to suburban jobs if the promise of economic opportunity is to be fulfilled.[341]

Adopt land use and growth policies that make most efficient use of urban services infrastructure such as sewers and school facilities. The Twin Cities region can stick with the development patterns of the past 30 years, extending commuter highways and sewers another 20 miles in each direction, and building new schools on the fringes of the metro while tearing down schools in the core cities.

Such development patterns are costly, but individual citizens rarely confront the true costs because government subsidies too often obscure them. The region should choose a more compact and less costly pattern of development,

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341 The Citizens League has previously urged the Metropolitan Council and Legislature to explore a full range of strategies—including telecommuting, revised land-use policies, and alternative pricing strategies—to address the region's transit needs. These recommendations are included in the League's 1995 statement, *Effective Transit: Invest in Access to Jobs and Services.*

freeing its infrastructure resources to be used on public amenities such as parks, and for investments in air transportation, telecommunications, and shipping capacity needed for future economic competitiveness.

Critical Success Factor 3

Improved Productivity in Services, Trade and Government

We agree with Paul Krugman that "productivity isn't everything, but in the long run it is almost everything." Productivity improvement is what makes economies more prosperous. The phenomenal rise in living standards in the U.S. and Minnesota during the years following World War II was fueled by dramatic increases in productivity.

If Twin Citians want productivity and living standards to grow as fast in the next 30 years as they did between 1940 and 1970, the region's firms and workers will have to improve productivity in services. (We consider services to include transportation and utilities, trade, finance/insurance/real estate, business and personal services, entertainment and government.)

Improving productivity will increasingly be a matter of improving the productivity of services. Because of the disproportionate growth of the service sector, a small increase in service productivity will have a bigger effect on the economy as a whole than a large increase of productivity in farming, manufacturing, or construction.

Manufacturing productivity has improved substantially in recent years, in part because national and international competition goads this sector. Continued, intense competition will provide a more powerful motivation for further improvement in manufacturing productivity than will public-sector intervention.

Some service business—advertising agencies, software designers, and accounting firms, for example—are subject to acute competitive pressures. Other services operate as quasi-monopolies, insulated from meaningful market tests.

In many services, too, there is only sketchy knowledge about how to improve productivity. Measurement is also difficult, because productivity improvement in services is often a matter of improved quality rather than increased quantity of output. The difficulty in measuring and evaluating productivity, coupled with protection from market pressure, reduces the incentive for such businesses to improve the quality and price of their "products."

As the Twin Cities region positions itself as the international business service hub of the Upper Midwest, and as a home for corporate headquarters and R&D functions, it will be especially important to seize competitive advantage by focusing on improving productivity in services, trade and government.

What should the public sector's role be? In general, we don't think the public sector should meddle with running businesses; we shudder at the thought of government bureaucrats hovering over the shoulders of business managers, counting their megabytes.

We do think government has a legitmate responsibility to create the conditions for productivity improvement in services. Its responsibilities should chiefly be to ensure that service businesses face the competitive pressure that provides the incentive to improve productivity. The public sector should also collaborate with service industries in developing specialized workforce training. And government can spur private efforts to improve productivity simply by collecting and providing information about service-sector performance.

Action steps

The public sector should look for opportunities to introduce or intensify market pressures on key service industries that are currently protected from competition. The State of Minnesota, in cooperation with the University of Minnesota, should inventory key Twin Cities service industries (including government) to identify which ones currently operate as local quasi-monopolies. Do public policies inappropriately protect these industries from competition (for example, through credentialing and licensing of vendors and practitioners)? Which of these protections could or should be removed? How could the public sector introduce or restore other market disciplines into these industries?

The public sector should identify, develop or obtain, and use information strategically to spur world-class productivity in key service industries. Often, providing information about current performance and "best practices" is enough to stimulate the workers closest to the job to experiment and invent new ways of doing the job better, faster and less expensively—even without setting goals or performance standards. This strategy can be especially appropriate to many services, where there is little expert knowledge about how to improve productivity.

We have already seen that the recent information about Minnesota eighth-graders' school performance is prompting a flurry of experimentation and innovation among districts who were unhappily surprised at their results. This burst of innovation will have been achieved not by mandate, but simply by showing people how they are doing. Any improvements that result from these innovations can then be used as lessons about "what works" in improving student achievement.

The State of Minnesota, in cooperation with industry consortia and the University of Minnesota, should develop productivity measures for key service industries and report them to consumers and the public. The information should be compared with the "best practice" in each activity. For example: What is the average cost of a coronary bypass operation? The average range of outcomes? Which provider has the lowest cost for this procedure? The best recovery rate and lowest mortality?

The public sector should help develop specialized training for the Twin Cities region's key business service industries and occupations. Investments in education have an even more dramatic effect on service-sector productivity than on manufacturing productivity. A 10 percent increase in the education of workers yields an 11 percent improvement in productivity in service establishments, compared with an 8.6 percent productivity improvement for all industries. In the service sector overall, the productivity payoff for increased education is nearly three times the payoff of increased capital stock.

We expect that the benefits of increased education—both in productivity and in higher wages for workers—would be even more dramatic when the education is highly specialized to particular industries and occupations.

The State of Minnesota should encourage service businesses to adopt ISO 9000 standards of quality and productivity. ISO 9000 standards have been developed for many service industries. Of the more than 230 Minnesota businesses certified as meeting ISO standards, 32 are in the service, wholesale trade or transportation industries.[342] Meeting ISO standards can help service companies improve their productivity and, for exportable services such as engineering and management services, can help expand trade opportunities.

The State should continue and expand its Best Practices Reviews to include other units of government. One of the largest service industries in the state and region is government itself. Best Practices Reviews, established by the 1994 Legislature and conducted by the Office of the Legislative Auditor, give Minnesota's counties, cities and townships important information that helps them improve their own delivery of local services. The program should be

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342 Dun & Bradstreet, May 1996.

expanded and reviews conducted on services provided by school districts, special purpose jurisdictions and state government itself.

Critical Success Factor 4

More Saving and Wiser Investment in the Foundations of Future Prosperity

Minnesota cannot singlehandedly reverse the American penchant for consuming, fueled as it has been by a host of federal policies, and given the need to remain competitive with other states. The state faces a classic problem of incentives and jurisdiction working at cross-purposes: Any incentives Minnesota provides to encourage greater saving among its own residents costs the state money, but the benefits of increased saving accrue primarily to the national economy. Given this reality, virtue is simply not in the state's self-interest.

Still, state, regional and local government can and should do a better job of favoring investment rather than consumption in *public* spending, and ensuring that the public sector's capital investments represent true net gain to the region.

Minnesota's policymakers also should consciously evaluate whether state and regional policies encourage Twin Cities citizens to overconsume and underinvest to the detriment of our long-run interests as a metropolitan region. The Twin Cities' economic development strategy should include a state effort to adjust tax policies, regulations, and spending on programs so as to subtly encourage people and firms to invest for tomorrow rather than spend everything today. How, for example, can families be encouraged to save for their children's education, or to invest in their own retraining? Prompting families to save for their future education not only would help the national economy, but pay off right here in the Twin Cities in the form of better-educated, committed workers.

Action steps: Protecting the public's "seed corn"

The Legislature should:

- **Set biennial state spending priorities explicitly.** In addition to setting the "price of government," the Legislature should determine, as a first step in the budgeting process, what share of total state resources should be devoted to each of its major spending commitments: K-12 education, post-secondary education, health, human services, corrections, aid to local governments/property-tax relief, and other.

- **Re-allocate our state spending priorities: Spend less on health care, more on post-secondary education and other public investments.** Control the growth in K-12 spending, where per-pupil spending has already increased significantly during the past three decades. Keep corrections' share steady. Maintain or reduce the share devoted to local government aid and property-tax relief, chiefly by targeting tax-relief more carefully on the basis of financial need, rather than writing down taxes for all, regardless of financial need.

  If the Legislature is to set a higher priority on post-secondary education, as we recommend, its most difficult challenge will be in controlling the growth in health care spending, especially spending on long-term care for the elderly and disabled, which is one of the fastest-growing areas of state spending.

  Health care is projected to consume an increasing share of Minnesota's spending—from 7.4 percent in 1994 to 19 percent in 2005, an increase of 11.6 percentage points.[343] In 1993, nearly half of the $947 million in Medical Assistance spending went to people age 65 and older. That age group will increase by 348,000 persons between 1993 and 2020.[344] These demographic pressures and likely reductions in federal spending will require dramatic changes in the delivery of care services. The state will also have to require citizens to make a greater effort to save and otherwise prepare for their old-age care, and must target public subsidies more carefully on the basis of financial need.[345]

  We acknowledge that choosing and changing budget priorities is much easier said than done. As John Brandl has pointed out, the state unfortunately has no department of defense to serve as an easy target for budget cutting; the main recipients of state spending are functions that most people agree are appropriate and worthwhile.

  Nevertheless, we think the Legislature must recognize the implications of these demographic and spending trends for our economic future. **The Twin Cities metropolitan region can't establish competitive advantage simply by having the best nursing homes and prisons.**

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343 Minnesota Planning, budget materials prepared for the Brandl-Weber commission, 1995.
344 Minnesota Planning, *Within Our Means*, p. 11.

- **Dramatically reduce state and local government spending—including tax expenditures—on real estate development subsidies, direct subsidies to individual firms, and location incentives.**

  Most of these "economic development" subsidies squander scarce resources on activities that produce little net gain to the region and fuel parochial competition. In many cases, local TIF and other spending is used to compensate for other policies—such as property-tax policies—that undermine the state and region's competitiveness as a business location; better the state should solve the underlying problem than disguise its costs via TIF. Some of these expenditures simply protect firms from the need to change; for this, we can see little justification.

  We acknowledge that it is unlikely and probably unwise for Minnesota's local governments to disarm unilaterally in the bidding war for development. Fierce competition means that some spending on location incentives will continue. But the public sector should focus first on providing efficient public services that make the region attractive on its merits, and should considerably reduce its spending on other incentives. And the types of incentives that are provided should be more carefully tied to a strategy for improving the competitive capability of the region as a whole, its industries and its citizens.

Action steps: Making better infrastructure investments

Public spending on infrastructure can yield dramatic returns, but only if the investments are chosen carefully. **To make the best infrastructure investments, the public sector should:**

- **Define the "real region"** for planning purposes for each of the core regional functions, such as transportation/transit, economic development, environmental protection and school facilities.

- **Develop a Regional Balance Sheet** to show the impact of current or proposed flows of infrastructure spending on the underlying capital stock of the region as a whole.

  We expect that a Regional Balance Sheet, along with a cross-system analysis of the benefits and costs of infrastructure projects, would show clearly that expansions of some urban infrastructure and some "economic development" spending is not economic development at all.

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345 For further discussion of these spending issues, see following Citizens League reports: *Minnesota's Budget Problem: A Crisis of Quality, Cost and Fairness*, 1993; and *Choose Reform, Not Declining Quality: Building a Legacy of Better Value*, 1995.

Rather, we expect such an analysis would show that such expenditures simply move capital value from one place to another without enhancing the overall capital value—or, worse, while eroding the capital value—of the region as a whole.

- **Decide in advance what the decision rules will be. We think that the most appropriate goal for infrastructure investment is improving productivity**—not creating an "image," or attracting development from elsewhere, or simply having the newest of anything. Proposed infrastructure investments should be evaluated in terms of whether their benefits, chiefly in improved productivity, exceed the total lifecycle cost and whether better results could be achieved by spending the money on something else. The analysis should monetize and account for non-financial costs and benefits.

- **Develop a comprehensive Capital Facilities Plan for the Twin Cities metropolitan area indicating how public-sector investment in infrastructure will be coordinated and leveraged with private investment to implement the desired strategy.** The capital plan should cover information infrastructure, highways, transit, airport, rail, intermodal, waterway infrastructure, special facilities (such as sports facilities), sewers and school facilities. The total geographic region covered by the plan would encompass all the functionally-defined regions (e.g., transit).

  The plan should specify what kind of "service infrastructure," such as marketing and pricing, is needed to make optimum use of the physical infrastructure. For example, how could demand for highway expansion be managed by appropriate pricing of peak-hour solo commuting? How might the region's air cargo needs be met by better scheduling, coordination and consolidation of partial shipments?

  When preparing the Capital Facilities Plan, demand for urban services to accommodate intrametropolitan urban growth should be considered simultaneously with infrastructure demand needed for future global competitiveness. Benefits and opportunity costs should be weighed across various public and private systems (sewer, highways, telecommunications, airport, etc.). To provide a simplified example: How much airport capacity could the Twin Cities region afford if its urban sewer system were used and expanded more efficiently?

  The Capital Facilities Plan should be used as the basis for the state bonding bill. Doing so would inject needed attention to the economic objectives of these investments into the decision process, which now is dominated by political considerations.

Action steps: Prompting individuals and businesses to save and invest more

Federal and state tax systems need comprehensive revision. We favor moving away from an income-based taxation system, which penalizes people who save and encourages consumption, to some type of tax on *consumed* income, which would encourage and reward greater saving.

Obviously, the State of Minnesota is limited in what it can or should do alone. As the Department of Revenue pointed out in its 1992 report, *A Model Revenue System for Minnesota,* the state has an interest in keeping its tax system predictable, with a minimum of year-to-year statutory changes, and keeping the system competitive with other states. The need for simplicity also argues for basing the state's income tax system on federal definitions of taxable income. Ultimately, the dramatic changes in the tax system we think are needed would require changes in federal law.

But there are appropriate steps the state can take to encourage greater saving and investment while maintaining—or improving—Minnesota's tax competitiveness compared with other states.

We agree with the *Model Revenue System* recommendation that Minnesota's sales tax base be broadened in the following ways:

- **Tangible products purchased by consumers should generally be subject to tax.** Minnesota should broaden its consumer sales tax base to include clothing and perhaps other items that are now currently exempted. (There is general consensus in tax policy literature that food should remain exempt. We agree.)

- **Personal services provided primarily to consumers should, in general, be subject to sales tax.** (The Department has recommended that health services continue to be exempt, to avoid heavy impact on individuals in periods of serious illness.)

  Broadening the sales tax to include tangible items such as clothing would affect low-income people disproportionately, because such purchases make up a greater share of poor households' budgets. On the other hand, taxing personal services disproportionately affects higher-income people, reducing the regressivity, according to the Department. Any disproportionate effect on low-income households by broadening the sales tax *base* can be mitigated by either lowering the sales tax *rate* or by adjusting other parts of the tax system, such as the income tax.

To encourage greater saving and investment by individuals, the State should take these additional steps:

- **Permit individuals to create "Individual Education Accounts," like Individual Retirement Accounts, to encourage families who can afford to do so to save for their children's higher education.** Minnesota families must make a better effort to support their own children's education. To encourage more saving, state tax policy should allow students (and parents on behalf of their children) to make contributions to these accounts from pre-tax income and exempt interest on the accounts from income tax. Withdrawals should be permitted without penalty only when used for the child's post-secondary education. The state should subject the account holders to income tax and penalty if used for any other purpose.

- **Revise state eligibility guidelines for entitlements—especially Medicaid-financed nursing home care for the elderly—to encourage more personal saving.** Middle- and upper-income people who are now middle-aged must be given the clear message that future public entitlements will not be used to subsidize their current consumption.

- **Stop using the state's tax code to encourage the overconsumption of housing.** The Citizens League has previously recommended that the state **limit the deductibility of mortgage interest** from state income tax (for example, by restricting deductibility to a single homestead having a certain maximum value, and eliminating deductibility for boats, vacation or luxury homes). Mortgage interest would still be deductible for the first home up to a certain maximum value.

  The League has also recommended **revising the state property-tax system so that all property is taxed at market value.** The current classification system provides an across-the-board subsidy to all owners of homestead property, regardless of their incomes. The League has recommended that tax relief be provided not across-the-board, but in the form of circuit-breaker aid to homeowners whose tax bills are high relative to their incomes.

  These two steps, limiting deductibility and providing tax relief that is targeted to the neediest, would continue the state's practice of encouraging homeownership—an appropriate goal—but would not reward the purchase of ever-more and bigger homes by middle- and upper-income Minnesotans.[346]

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346 For further discussion of these recommendations, see the Citizens League report: *Why We Should Build Inclusive Communities: The Case for a Regional Housing Strategy in the Twin Cities Metropolitan Area,* 1994.

The state should remove disincentives to business investment by:

- **Repealing the state's property tax classification system,** which imposes a disproportionate burden on business property and results in business property taxes that are the highest in the nation.[347] Property should be taxed on its market value, regardless of what the property is used for. (We acknowledge that making the transition from the present system to a one-class system is fraught with complexity. For further discussion of these issues, see the Citizens League's 1995 report, *Choose Reform, Not Declining Value.)*

- **Exempting businesses from paying state sales tax on capital equipment.** The *Model Revenue System* recommended that items and services used in production generally be exempt from sales tax.

  Just as income tax policies now penalize individuals who save—by first taxing their wage income, then also taxing interest on the income they save—taxes on equipment purchases double-tax businesses who continually upgrade their capital stock. Companies pay sales tax on the equipment purchases, then pay income tax on the profits they make by using the equipment.

  Minnesota businesses currently pay sales tax on many tangible goods and services used as "intermediate inputs." Taxes on these business inputs account for about 45 percent of all sales taxes collected, or approximately $1.5 billion of the $3.34 billion anticipated sales tax revenues for fiscal year 1997.[348]

  Businesses will pay about $577.2 million in sales tax on capital equipment purchases alone in 1997. Current law permits manufacturing businesses to apply for full refunds of sales tax paid on new equipment, and for partial refunds of tax paid on replacement equipment. The sales tax rate on replacement equipment is being phased down from 3.8 percent currently to 2 percent after June 30, 1998.[349] Service businesses are not eligible for exemptions on capital equipment purchases, either new or replacement, however.

  A proposal introduced in 1996 and included in the House omnibus tax bill would have eliminated the double-taxing by exempting all capital equipment—new or replacement—from sales tax, and by extending the

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347 Minnesota Taxpayers Association, *50-State Property Tax Comparison Study (Payable Year 1995)*, June 1996.

348 Calculation by staff, based on the estimated shares of sales taxes paid by businesses (see: Minnesota Department of Revenue, *Minnesota 1995 Tax Incidence Study*, p. 46) and 1997 sales tax revenue estimate by the Minnesota Department of Finance.

349 Minnesota Statutes 297A.01.

exemption to service as well as manufacturing businesses. (Corporations would still be subject to *income* tax.) The measure unfortunately was eliminated from the final tax bill. It should be resuscitated next session.

Given today's pace of technology change, equipment is seldom replaced with equipment having the same capabilities as the original; instead, yesterday's printing press is "replaced" by a faster, more efficient and better quality machine, for example. Also, with the increasing importance to the Twin Cities economy of advanced, globally-marketed services, we see little justification in the current policies' preferential treatment of manufacturing businesses. If the region wants a vigorous and productive economy, its tax policies should encourage, not penalize, both service and manufacturing businesses that continually invest in modern capital equipment.

The steps we recommend, when taken together, would result in a tax environment that would reward individuals and businesses for saving and investing. The tax environment would also treat business and residential property owners more equitably and would be more competitive with neighboring states.

The changes could be made without raising taxes overall. For example, if the sales tax base were broadened to include clothing, personal services, auto and miscellaneous repair and motor vehicle fuel, the sales tax *rate* could be lowered from 6.5 percent to 5.2 percent, or business capital equipment could be exempted, while raising the same total amount of revenue.[350]

By removing one of the state's most substantial competitive disadvantages—its property-tax treatment of business property—these steps might also remove one of the factors driving local governments' massive spending on TIF and other location incentives.

350 Staff calculation, based on Minnesota Department of Finance forecast of sales and motor vehicle excise taxes for fiscal year 1997, and FY 1997 data from the Minnesota Tax Expenditure Budget.

Critical Success Factor 5

A High Quality of Life and Healthy Civic and Social Fabric

The greater Twin Cities region should preserve and repair its social and civic fabric, which has been a distinguishing and competitive advantage for the region.

This is a strategic concern. The region's quality of life is a critical ingredient for its long-term economic health. The "good life"—abundant cultural and recreational amenities, civilized neighborhoods, friendly people and public-spiritedness—is particularly important to support a strategy focusing on headquarters companies, R&D, international services and world-class industries. To attract and keep knowledge workers who are the best in their fields, a region must offer an attractive environment and be a "good place to raise a family." The greater Twin Cities region, with its less-than-hospitable weather, must be doubly attentive to these quality-of-life concerns.

The region should be also concerned because a vital social and community life is essential to any civilized notion of "prosperity." High per-capita income is not the same as prosperity. We think the citizens of the region want a community that works, not just brisk GDP growth.

What can the public sector do to strengthen the fabric of the region's community life?

Government alone cannot reverse the problems that have become evident. Businesses, neighborhoods, religious institutions, non-profit associations all must play a part. Individuals, too, can choose to behave in public-spirited ways—from such simple acts as picking up a stray piece of trash, to fulfilling major responsibilities as parents, neighbors and voters.

Government does matter. *How* state, regional and local government in the Twin Cities region carry out an economic strategy will have a profound effect on the region's community well-being. This is perhaps most noticeable in direct government activities, such as the building and maintenance of parks, libraries and other public spaces.

But a wide array of other public policies and services can be arranged in ways that support and encourage ties among neighbors, families and communities. The Citizens League described principles for thus arranging public policies in its 1993 report, *Minnesota's Budget Problem: A Crisis of Quality, Cost and Fairness.* Similar ideas were also included in the recent Brandl-Weber report, *Agenda for Reform.*

We suggest that the region's long-term economic strategies be characterized by the following features that will help to enhance, rather than erode, the region's quality of life:

- **Pay attention to broad measures of regional well-being.** The region should use broader measures of prosperity that take into account economic "bads" as well as economic "goods." The region must distinguish productive, positive economic activity from mere cash flow. For example, as we suggested on page 121, policymakers should develop a regional balance sheet to show the underlying stock of wealth in the region, to supplement such measures of present performance as per-capita income.

  Policymakers should also pay careful attention to community, household, and family production, and time spent in "investment" activity. Because these activities usually aren't assigned cash values, they are often overlooked when measuring prosperity but nevertheless represent value to the economy and society.

  For example, when a teenager works 20 hours a week rather than doing homework, the family appears better off in the short run because its income rises. However, the family's present income doesn't reflect the dis-investment in education that has occurred, which might well reduce the student's employment prospects and earnings over her lifetime. The public has an interest in encouraging activities—such as doing schoolwork—that benefit individuals and the region even though they don't show up in short-term financial measures.

  Benchmarks of community well-being, such as those adopted in the Minnesota Milestones process, provide a good start and should be more fully integrated into operations decisions.

- **Deliver some public services through communities**—families, neighborhoods, communities of faith and other civic networks—not as a replacement for public funding, but as a means for meeting public purposes while strengthening existing relationships of obligation.

One of the most troubling threats to the region's quality of life—and to the well-being of its citizens—is the growing share of the population

unconnected to meaningful participation in economic and civic life. Minnesota's public policies should be designed to provide economic opportunity for the least-advantaged or, at the very least, to avoid disadvantaging these individuals further.

The state, region and local governments should:

- **Adopt urban growth and land-use policies that help to reduce the concentration of poverty in the urban core.** While income disparity does not appear to be growing in the greater Twin Cities region overall, the region is seeing a greater concentration of very poor households in a few inner-city neighborhoods.

  That pattern has been encouraged by state and local policies. Research has shown that concentration of poverty is associated with a host of social problems and inhibits the long-run economic growth of urban regions. Living in high-poverty neighborhoods also severely impedes individuals' prospects for economic advancement.

  As the region anticipates the addition of 330,000 new households in the coming years, policymakers will be presented with the opportunity to enact policies that encourage the development of livable communities—or exacerbate the growing problem of inner-city ghettos.

- **Improve the quality of public education provided to young people of color.** A cumulative four-year dropout rate of 50 percent or 60 percent for students of color is cause for alarm, as are the dramatically higher failure rates for students of color on the recent reading and math tests. To be sure, the schools themselves can't reverse the problem singlehandedly, but they must do better than they currently are. We will offer some controversial ideas about how to improve the education system later in the report.

- **Use public subsidies to promote access to opportunity by the least advantaged, rather than distributing subsidies randomly or as entitlements to middle- and upper-income people.**

  In today's economy, skills are the ticket to economic self-sufficiency. It also appears that economic forces are increasingly rewarding the most-skilled knowledge workers, while the least skilled workers are finding their economic prospect languishing.

  These forces, left to themselves, can be expected to widen the difference between the highest- and lowest-earning people. Combined with current state and local policies that have tended to concentrate poverty in a few neighborhoods, the trend means that the Twin Citians face the possiblity of growing areas of increasingly poor households.

Government need not and should not eliminate inequality. Government should appropriately focus on ensuring that all citizens have the *opportunity* to participate fully in economic life.

Higher education will be a key determinant of economic opportunity. For this reason, Minnesota's higher education funding should be better targeted to the neediest students, rather than being used to write down tuition for all students, including well-to-do students. Some of the public funding for other services might also be distributed directly to individuals who qualify on the basis of need. For example, rather than providing all transit funding to transit operators, some public money might be provided to low-income individuals directly to allow them to arrange work transportation that best meets their needs.

Critical Success Factor 6

A Better Safety Net for Today's Workers

Insecurity has always been part of work life, especially for blue-collar workers. If anxiety is more acute now, we suspect that's because middle-class, college-educated, white managerial and technical workers—who have come to believe in the idea of "lifetime employment"—now experience more uncertainty than they did in the postwar decades.

The relationship between workers and their jobs is changing. Technological advances are permanently eliminating many jobs and adding new ones that usually require more advanced skills. Some analysts believe that there is an inevitable trade-off between economic security and the benefits of a global, knowledge economy. If we want a fast pace of job growth and high-paying jobs, they argue, we have to accept a higher degree of instability and insecurity. The jury is still out about whether that tradeoff is inevitable. And while people and the economy might be better off in the long run as a result of such changes, it's also true that, as John Maynard Keynes once quipped, "in the long run we're all dead." In the short run, job dislocation is traumatic for the individuals and families involved.

One of the ways the public sector contributes to economic prosperity is by enacting policies that allow labor markets to respond quickly and individuals to minimize their time in transition between jobs. These policies help the private sector to be as productive as possible.

For future prosperity, the region needs workers and firms to embrace change, not resist it, and adapt quickly with minimal loss of productivity. That will be more likely if an *appropriate* safety net is in place.

The social "safety net" is being reexamined in both the public and private sectors. It is likely that in the future, **neither employers nor government will be able or willing to provide the degree of financial security they have provided in the past.**

The best-managed and best-situated companies will continue to offer good benefits and as much employment security as possible, because doing so helps to attract and keep good employees. However, the old employment ideal, based on the assumption of a long-term relationship between a loyal employee and paternalistic employer, can no longer be guaranteed. Companies are under increasing pressure to control payroll costs and adapt their workforces when needed to meet changing conditions. And with self-employment on the rise, a growing share of the workforce doesn't fit traditional models of employment security.

The public sector, too, is under pressure from demographically-driven demand for pensions, health care and other safety net services, and public revenues that are growing more slowly than demand.

Workers, employers and government need a new compact that articulates the responsibilities of each in protecting workers and the labor market from the most devastating effects of employment disruption.

What should be done to improve the safety net? We think there are five essentials:

1. **In the knowledge-based, global economy, the single best insurance against devastating employment disruption is up-to-date, relevant skills.** Individuals must complete their schooling, attain marketable skills, and upgrade their knowledge and skills continuously—even well past middle age. Employers must invest amply and equitably in their workers' skill development. The public sector must adapt its education systems in the ways we have suggested on pages 101 through 107—by ensuring that all children get a solid foundation of basic skills, and that financial need is not a barrier to obtaining postsecondary education.

2. **Individuals must expect and plan for the financial impacts of job changes.** Most adults can expect to change jobs—even careers—several times over the course of their work lives, and the loss of a job should no longer be considered a remote possibility. Public policies should encourage individuals to save more and otherwise take more initiative to protect themselves and their families financially when job disruption occurs.

3. **Health insurance and pension policies should recognize the reality of more-frequent job changes.** Rather than being attached to a specific job, these benefits should be attached to individuals and follow individuals as they move between jobs. Loss of a job should not mean financial devastation, and the *fear* of losing health or pension coverage should not prevent people from making job changes.

4. **More traditional safety nets for workers—unemployment compensation, other income-supports and job training and retraining, for example—must acknowledge the new reality of work dislocation:** Layoffs now are

less often temporary experiences accompanying cyclical business downturns, and more often the result of permanent elimination of jobs.

5. **The public sector should not, in general, add more new restrictions to employers' ability to adjust their workforces.**

Developing better safety nets for today's workers will require changes to federal-level laws and policies. For example, the Internal Revenue Service has proposed changes in tax laws that would permit employees holding a new type of pension plan to take their pensions with them when they change jobs, allowing the funds to continue growing in value.[351] State leaders should press for appropriate federal changes such as this one.

The State of Minnesota has been a leader in efforts to improve some elements of the safety net. Minnesota has implemented health insurance reforms that provide near-universal access to affordable health care coverage for people in a variety of employment situations.[352] For example:

- Minnesota law already prohibits health carriers participating in the small employer market (two to 49 employees) from denying policies to small employers meeting participation and contribution requirements. All employees and their dependents must be offered coverage, and state law places restrictions on insurers' freedom to limit coverage for pre-existing conditions.

- Large companies have similar requirements. The exception is that companies who self-insure are not mandated to provide the protections—however, most Minnesota companies do. (The federal Health Insurance Reform Act, S. 1028, now being debated in Congress, would extend the mandate to employers who self-insure.)

- Individuals who have been covered under a workplace group plan must be offered a qualified individual plan after leaving the group plan or exhausting the 18-month COBRA benefit. Individuals who have been rejected for health policies because of their risk status may obtain coverage through a special state-provided plan.

- Small private employers—many of whom had not previously offered health benefits—may purchase health insurance for their employees through a state-operated pool, the Minnesota Employees Insurance Program.

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351 R. Jane Brown, Commissioner's Forum: The "De-Jobbing of America?," *Minnesota Economic Trends*, Spring 1996, p. 16.

352 Minnesota Department of Health, staff memo by Andrew Davis to the office of U.S. Senator Rod Grams , April 1, 1996.

- Individuals and families who are currently uninsured and meet income and program eligibility requirements have access to affordable health-care coverage through MinnesotaCare.[353]

These current policies go a long way toward preventing "job lock" and assuring Minnesota's workers that change of job need not mean loss of health insurance.

Minnesota can and should take some additional steps to improve other aspects of workers' safety net.

First, the state should encourage greater personal saving. In addition to the steps we recommend on pages 123-124, **the state might permit individuals to establish Personal Safety Net Accounts** if their employers do not provide a severance benefit to workers whose jobs are eliminated. These accounts would be similar to IRAs or Individual Education Accounts: Individuals would be permitted to make contributions of pre-tax income, up to a certain annual limit, to these accounts. The total balance of the Personal Safety Net Account would be limited to six times the individual's monthly take-home pay. Individuals would be allowed to withdraw funds from the account without penalty only if their job is eliminated (not if the individual is fired or resigns). The income from the account would be taxed when it is withdrawn and unused balances could be rolled into the individual's retirement fund.

Second, the state should look at the needs of the growing share of the workforce that is self-employed. Current policies often favor traditional payroll employees and disadvantage self-employed workers. We think the state should:

- **Ensure that tax policies regarding health insurance premiums treat payroll employees and self-employed workers identically.** The current system permits employers to deduct employees' health insurance premiums, thus making health insurance less costly for payroll workers than for self-employed workers, who must purchase health insurance with after-tax dollars. The current practice contributes to overconsumption of health care and is hugely unfair to the self-employed, who already face higher premiums for individual policies.

- **Revise policies to allow self-employed individuals greater flexibility to operate from their homes.** Some current policies, such as local zoning laws and liability issues, might erect barriers to self-employment that cannot be justified by public interest considerations.

353 *Ibid. (All • points.)*

- **Facilitate the creation of a health insurance purchasing pool for self-employed individuals.** (This step would require insurance underwriting reform at the federal and state levels.) Pooled purchasing would likely result in lower health insurance premiums and better coverage for self-employed workers. Some of the cost of developing such a pool (for items such as actuarial analysis) should be covered from increased revenues obtained by disallowing the use of pre-tax income for health insurance premiums by payrolled employees.

Third, the state should revamp its traditional safety nets—unemployment compensation, job placement assistance and job re-training—to assist individuals affected by permanent elimination of jobs. There are many encouraging efforts already under way in Minnesota, such as the Department of Economic Security's new "one-stop shops" to assist job seekers. More changes will be needed to enable the state's safety net to adapt to the realities of today's economy.

Specific recommendations on this important and complex issue are beyond the scope of this study. Here, we simply acknowledge that the Twin Cities region has a stake in making sure that its safety nets help citizens and the economy to be as productive and adaptable as possible.

Compete Globally,
Thrive Locally

What the Public Sector Should Do
To Help the Greater Twin Cities Region Prosper

Government's Role

What The Public Sector Can Do

Government doesn't create wealth; people create wealth. Government's job is to provide the foundations that enable individuals and businesses to create wealth through their own private actions. The public sector enables people collectively to invest in education, physical infrastructure and other factors that help the whole society improve its productivity and, thus, its standard of living.

Providing the foundations of long-term economic growth is one of the core objectives of state and local government. More than 40 percent of Minnesota's state and local spending, $8.2 billion in the current biennium, is spent on K-12 and higher education.[354] The 1996 Legislature approved another $614.4 million in capital spending on infrastructure projects.[355] The state spends millions more on highway maintenance, higher education, and a host of other functions that provide the foundations of prosperity.

How well is this spending contributing to the long-run prosperity of the region?

We and others have concluded: Not well enough. The region saw a raft of studies and community task forces on competitiveness in 1994 and 1995. Their recommendations about what the region should do to improve its economic prospects were remarkably similar: A better-prepared workforce, tighter links between educational institutions and workplaces, and improved telecommunications were just a few of the proposals that met with widespread agreement.

The fact that many good ideas have been offered and agreed upon—but not implemented in any systematic or permanent fashion—suggests to us that **there are systematic barriers that work against progress in the public sector and thus thwart good intentions.** That means that while an economic strategy for the region is necessary, it won't be sufficient to ensure that the public sector will fulfill its responsibilities appropriately.

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354 Minnesota Department of Finance. The $6.02 total spending on K-12 education includes a $495 million property tax recognition shift. The share of total state spending devoted to K-12 and higher education is 40.7 percent if the recognition shift is included, and 43.4 percent if it is excluded.

355 Minnesota Department of Finance. Of the $613,366,000 approved, $488,056,000 will be financed with general obligation bonds.

Needed: Fundamental innovation

The region needs fundamental innovation to re-order how both business and government go about building the foundations of future prosperity.

First, the public sector itself must be redesigned. All of the suggestions we have made in previous sections of this report, and all the similar recommendations made by other concerned groups, are unlikely to be implemented unless the public sector confronts and resolves its **"critical flaws:"**

- **Political boundaries don't correspond to the "real region."** Unless the political jurisdictions in the Twin Cities are reconciled with the boundaries of the real economic region, the region will have trouble positioning itself for the future. How, for instance, can the state and region prioritize its investments in metropolitan transportation, including transit, when counties such as LeSueur—39 percent of whose workers commute daily to the seven-county Twin Cities area—are not considered part of the metro region?

- **The region doesn't have appropriate "balance sheets."** Public officials are now unable, given current budgeting and appropriations practices, to distinguish flows of spending from stocks of wealth, and transfers of economic value from one place to another from net regional gain. One unfortunate result is that limited public resources and attention are squandered on attracting development from one part of the Twin Cities to another, rather than on the urgent business of preparing the region as a whole to meet the real competition "out there."

- **Public sector institutions are seldom at risk financially if they fail to perform.** For example, there is no ongoing, systematic link—by either incentives or market—between the skill and education requirements of the workplace and the education provided by our public educational institutions.

  Employers are now recipients of the products of the education system; they are not, in any meaningful sense of the word, customers. A customer is someone who chooses to buy a product, and who actually exercises some control of its purchase. In the current system, high-school graduates who apply for work at a company are the equivalent of junk mail: You get it, but you don't have much influence over what the "it" is. Most applicants will be well-qualified. Others will not be.

  Given the current shortage of workers, that leaves employers with few options. The employer can reject an unqualified applicant (leaving a gap in the workforce) or accept the applicant and assume the cost of remediation. Both of those choices are costly to the employer. Or the employer can outsource the activity to workers elsewhere, or "import" the labor either physically or electronically. Both of those choices are costly to the prospective worker, who loses the job opportunity.

But the educational systems themselves bear no financial risk for failing to prepare young people for work. School districts receive their appropriations based on enrollment, not on whether students have any usable skills upon graduation, or indeed whether students graduate at all.

There have been countless reports recommending better school-to-work transitions, apprenticeships, internships, job shadowing, and other improvements to the system of job preparation. There are some heroic and noteworthy efforts under way. But the educational system seems unable or unwilling to embrace these innovations quickly or to adapt its core practices.

The situation is by no means unique to education. Public transportation systems, for example, bear no financial risk for failing to provide attractive public transit options for inner-city workers commuting to suburban jobs.

Needed: A new relationship between business and government

Second, government and industry must collaborate more closely to meet the public's interest in the Twin Cities region's long-term productivity improvement.

Minnesota's history reveals a long-standing ambivalence about the proper relationship between government and industry. We call it "adversarial largesse." On the one hand, citizens and government officials have been reluctant to allow too close a relationship between government and industry. The relationship between government and the business community has ranged from chilly to downright adversarial on many business climate issues, including workers compensation.

On the other hand, Minnesota's state and local governments continue to spend vast amounts of money on so-called "economic development" activities that more often are subsidies to real estate developers and businesses—some of them troubled businesses—and "incentives" to encourage companies to expand or locate in a particular area. Research has shown that such activities have little long-term economic value and that some might even be counterproductive.

We think the region's outmoded and ambivalent views about the proper relationship between government and industry are leading to missed opportunities and the danger that the Twin Cities will become mediocre.

The challenge for citizens and policymakers now is to craft a new relationship that travels in the intersection of public and private.

A planned economy isn't the answer. That approach has been thoroughly discredited since the fall of the Berlin Wall. Nor is the answer a heavy-handed "industrial policy" in which government selects strategic industries for special support. History has shown that government isn't good at picking winners and losers, forecasting what industries will be most critical or implementing business strategies. Few Twin Citians—and fewer businesses—would stand for such interventionism.

We also are skeptical of the typical model of "public-private partnership." Typically, such partnerships involve grants by foundations or government (or both) to start new programs that are added on to the regular activities of each. More often than not, these programs end when the special funding does, with little evidence of change in how either government or business does its "real job."

In advanced economies today, productivity improvement is increasingly achieved through investments in highly *specialized* skills, research, and infrastructure. If the public sector is to contribute as it should to improving the region's productivity, it will have to move past adversarial largesse to a more strategic collaboration with the private sector.

We think that the public sector, in addition to meeting its core responsibilities of education, research and infrastructure, should:

- **convene industries and public sector institutions together** to coordinate and leverage public/private activities related to competitiveness;

- develop and oversee implementation of **collaborative public and private strategies to market and position the region** and its industries for global commerce;

- arrange its taxing, pricing of public services, and regulatory environment so that **saving and investment** behavior is encouraged;

- **provide or arrange for information** that promotes world-class performance by students, workers, firms and government itself;

- **provide a forum** for consideration of how economic, social, civic and environmental objectives should be reconciled in pursuit of a prosperous future.

Perhaps most important, the public sector should sustain an environment of incentives that prods people and institutions to embrace rather than resist change. As one observer noted, "if a powerful government will not conserve the patterns of the past on your behalf...you learn quickly that you must cope with the future."[356]

Neither a good strategy nor exhortation will get the greater Twin Cities region where it needs to go because the underlying flaws work against the needed changes. **Unless the public sector fundamentally remakes itself, and unless government and business design new forms of collaboration, we can expect any new batch of good ideas to join all the others on the dusty shelf of good intentions.**

The next section offers some examples of dramatic steps the public sector could take to correct these flaws and offer real hope for implementing the changes we and others have recommended.

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356 Jim Rohwer, *Asia Rising: Why America Will Prosper as Asia's Economies Boom*, Simon & Schuster, 1995; quoted in "How the Tigers Got So Tough," *Business Week*, December 25, 1995.

Remaking the Public Sector

Some Controversial Ideas for Redesigning Public Education to Meet New Workplace Requirements

Realigning the public sector in the way we have suggested is, of course, more easily said than done. Such fundamental realignment challenges many long-held convictions about how the public sector should do its job. It is often difficult even to imagine how public services would look if redesigned—let alone to know how one would go about getting from here to there.

In this section, we describe how government and industry might collaborate in new and productive ways to meet the public's interest in educating young people and adults for today's workplaces. We also describe some examples for how the underlying flaws in the public sector—flaws that have so far stymied attempts at improvement—might be corrected.

We focus on education not because we believe it should be singled out for special criticism. Education is not the only public service that needs realignment, and these ideas could just as well be applied to transportation, corrections or city services. However, in the knowledge era, education will become increasingly critical to economic success for individuals and regions. Education accounts for nearly half of Minnesota's general fund spending and is arguably the state's most fundamental economic development responsibility. And education, perhaps because it is a service to which all citizens are personally acquainted, lends itself well to illustrating our ideas with examples.

In previous sections of this report, we have noted a few steps the public sector could take to fix the some of these underlying flaws. We have said, for example, that policymakers should define the "real economic region" for the key economic functions, and develop a comprehensive Capital Facilities Plan for the real region, which extends well beyond the seven counties of the Metropolitan Council's jurisdiction. **We have recommended that capital facilities planning for schools be done at the regional level as part of this process.** Doing so would better enable citizens to see whether expansion of school facilities, like expansion of other urban facilities such as sewers, represents true net gain to the region's capital stock, or whether the value of new schools on the suburban fringes is offset by aging facilities in the urban core.

We have also recommended that the public sector reverse its present taxing, pricing and growth policies, which tend to encourage overconsumption, and instead realign its policies to encourage saving and investment. The State of Minnesota, for example, should permit and encourage families who can afford to do so to create "Individual Education Accounts" to save for their children's higher education.

Realigning the public sector: Some controversial examples

More difficult than identifying these steps is envisioning how to redesign the delivery of education itself to improve the performance of students and better prepare them for the world of work.

In our discussion of workforce strategies, we suggested a number of steps, such as strengthening the linkages between schools and workplaces, through internships, apprenticeships and other means. None of the suggestions we have made so far are earth-shattering or innovative. Many other groups have recommended similar steps, and most people have agreed the steps are needed.

So far, however, change has been slow. Perhaps, as some argue, the reason is simply that the public sector hasn't provided sufficient funding to support the needed changes.

The fiscal realities facing Minnesota mean that the solutions must not depend on large amounts of new money. The solutions must involve fundamental realignment. New education resources, if they are required, must be obtained by reallocating state and local spending differently among spending areas, or by achieving efficiencies within the education system itself.

Several of the resource people who spoke to the committee argued that not only will more new money not be available, more money *should not* be viewed as the solution. As one said: "We don't do people favors when we give them extra money; doing so delays the process of change, suggests that change isn't fundamental, and just makes people's jobs bigger."

The realignment we think is needed in the education system must have at least three features. The new design must:

- create permanent but self-adjusting links between employers and educational institutions, so that schools are themselves continuously motivated to ascertain and meet the requirements of workplaces;

- put schools at risk for performance, so that there are financial consequences for graduating students who lack basic skills, and rewards for succeeding;

- make employers part of the public system of continuing education for the workforce and align incentives to prompt employers to invest more—and more equitably and efficiently—in the training of their workforces.

The following are a few **bold examples of action steps the State of Minnesota could take to build these characteristics into the education system, so that other needed improvements would be possible.** These examples have not been researched. They don't reflect a consensus of the study committee members. They are intended as provocative examples to "push the envelope" of the public discussion about competitiveness strategies.

Some bold examples of action steps

1. **Provide some of the state's post-secondary education appropriation to industry cluster councils of employers, and empower these councils to design advanced, specialized training.**

   Encourage industry cluster consortia to develop **"Industry Cluster Excellence Institutes"**—public-private institutes for the development of specialized productivity-improving workforce advantages in the Twin Cities metropolitan area.

   In the increasingly competitive global marketplace, a good general education system and good generic skills will not be good enough. The Twin Cities must offer unique, specialized advantages. We have proposed that the region develop its own key industry clusters—finance, medical device manufacturing, printing and publishing, software, and several others. The State and region must design new delivery systems that link and engage these industry clusters as full partners in the task of developing a top-notch workforce with specialized skills.

   For example, the region's printing and publishing businesses might form a "Printing Excellence Institute," where students would learn state-of-the-art printing technologies on equipment the sponsoring firms made available. The industry consortia should be encouraged but not required to involve public post-secondary education institutions in developing the Institutes.

   The state should make the Industry Cluster Excellence Institutes available to employees of participating companies and trade unions, employees of other industries, and displaced or unemployed workers, subject to admissions criteria established by the Institutes.

A significant share of the state's financial support for these Institutes should be in the form of financial aid provided directly to students who are financially needy. Student-centered funding applies market pressure to the Institutes, requiring them to provide training that meets the needs of both employers and learners. Providing aid to students also ensures that individuals who are currently in low-paying jobs will have the ability to make decisions about their career paths, rather than being solely at the mercy of their employers. Too, providing public dollars in this way ensures that these training resources are available to unemployed and displaced workers.

The state should require the sponsoring industries to match the public's financial investment, and should require the support of the appropriate trade unions. Employers who fund their employees' training should be permitted to establish agreements with those employees regarding employment tenure. For example, an employer might stipulate that the employee remain with the company for two years or pay back a portion of the training expense.

This arrangement would align incentives properly so that government does not have to determine, by itself, what skills are needed by the marketplace. Industries would be motivated by market pressure and self-interest to design training that keeps workers' skills competitive. They would also be motivated by the prospect of public dollars to maintain state-of-the-art physical plant, in order to be attractive as training sites. Individuals would be motivated by self-interest to seek out the best quality and most relevant training.

2. **Allow public high schools to contract with private employers to deliver basic occupational training to vocational students, and encourage firms to develop secondary-level "charter academies" for occupation and skill-specific vocational curricula.** These charter academies would be subject to requirements similar to those now in effect for charter schools, such as performance reporting and policies of non-discrimination. One possible exception might be to permit some admissions requirements, such as completion of certain coursework.

3. **Expand Minnesota's Post-Secondary Enrollment Options Program (PSEO) to allow public secondary students to enroll in *advanced* vocational training** provided by the Industry Cluster Excellence Institutes and other alternative providers (such as individual companies, trade unions, private technical colleges, or electronic learning programs). Expanding PSEO would provide more education and training choices to

Minnesota's high school students who are bound for technical careers rather than four-year colleges.

4. **Ask employers to set the standards for employment competency.**

- **Convene a consortium of employers to develop an "Employment Competency Test"—ECT—that would be administered to all entry-level job applicants.** The ECT would include literacy, numeracy, communication and critical problem-solving skills considered "basic" by employers' standards. (Industry-cluster or occupation consortia could be convened to identify or develop additional test modules to evaluate competencies specific to certain industries or occupations.)

  These industry consortia could offer the ECT to groups of students two or three times a year, as the SAT and ACT tests are now administered for college admissions. The industry consortia could keep and report individual student test results as requested by potential employers. The consortium should report annually the aggregate Employment Competency Test results for each school district's students.

  Why not just depend on Minnesota's soon-to-be implemented graduation rule? The graduation rule is an important step forward, one we encourage the Legislature, school districts and schools to support fully. The graduation rule, however, is intended to assess student performance on what *the public sector* believes to be the range of important outcomes of public education. The ECT, however, would provide a real-market test of whether students meet the basic expectations of *employers*, one of the customers for public education.

- **Convene industry or occupation consortia to establish and jointly recognize "Cluster Excellence Credentials" that meet international standards of performance for specific industries or occupations.** These credentials would be used to recognize individuals who have achieved competency in specialized industry-related or occupational skills. The credentials would supplement such traditional credentials as high school diplomas or college degrees, which indicate general levels of education but not specific competencies. The industry clusters might adopt or modify existing assessment tools, such as the U.S. Department of Labor's SCANS competencies, or develop their own.

  The share of workers with college degrees has climbed, and so in the future will the share of workers whose degrees have become "stale" by the passage of time. For workers and employers, a customized regime of industry-related training and education courses might well be more valuable than another generic undergraduate or technical degree, or even a master's degree. But for that investment to pay off, employers must know—and workers must show—that training has resulted in increased competency by the standards of the industry.

5. **Put Minnesota's public secondary education system at risk for its performance in preparing young people for work: Allow employers and higher education providers to charge back to the Minnesota graduate's school district the costs of remediation to achieve basic competency.**

   Such a policy might work like this: If an applicant has a high school diploma from a Minnesota school district, but fails the Employment Competency Test, the employer might hire the applicant for a probationary period but make permanent employment contingent upon successful completion of a course of remedial education. The applicant would agree to stay with the employer for a certain period following successful completion of the remedial program.

   The employer and employee could either choose to enroll the employee in remedial coursework provided directly by the school district that issued the applicant's diploma, or could choose any other provider (including the employer). Once the employee had demonstrated the required level of competency (perhaps by re-taking the ECT), the cost of the remedial education would be charged back to the original school district.

   These arrangements would put employers, school districts, and applicants appropriately at risk. The employer would bear some risk by hiring an underprepared worker and by absorbing the cost of remediation if the employee is unsuccessful. The worker would risk losing a job if he or she didn't demonstrate competence, and would be obligated to fulfill a service commitment to the employer if successful. The school district would risk financial exposure if it issued diplomas that did not signify competency.

6. **Provide the information elementary and secondary students and parents need to see how their performance stacks up by global standards.** Minnesotans are too prone to congratulate themselves for doing well compared with their past performance, or compared with other states. Students, parents and policymakers must be challenged to measure themselves against their best international peers.

- The state should **compile benchmarks** for the international "best in class" student performance, on each of the main study subject areas and for each grade level.

- School districts should **include on each individual student's grade transcript (report card) the performance of the international "best in class" on each key subject,** including subjects the student hasn't chosen to take but are typical for other students internationally, such as foreign languages or advanced mathematics.

- The State—or preferably an independent education-auditing function—should **report school-by-school information about student achievement** compared with world-class performance benchmarks.

- Compile a thorough, confidential consumer survey every two years to **determine how satisfied employers are** with the preparation of recent high school graduates.

- Individual grade transcripts for high school students should also **report the estimated difference in wages** among high school dropouts, high school graduates, and individuals with some post-secondary education.

Discussion

These ideas are a starting point for discussion about how to align incentives in the educational system to better meet the requirements of today's workplaces. We encourage readers to ask: Would these steps create ongoing and self-adjusting links between employers and educational institutions? Would these steps establish consequences for school district performance? Would they prompt employers to invest more and better in the training of their workforces?

Of course, the steps we have describe point to many more unanswered questions:

- How should the public sector's education policies be designed so ensure that employers increase and improve their investment in their workers—not merely replace the investments they are already making with public spending? And how should the public sector make sure the private sector's efforts meet certain appropriate expectations of any truly public service?

- Recent research shows that more companies espouse high-performance work techniques than actually use them. How can policies be arranged to encourage employers to adopt high-performance work practices that use all of the skills workers bring to the job?

- How should policies balance individual and institutional responsibility for education and training? Schools rightly protest that they are not solely to blame for the poor performance of some students; the families of the students, and the students themselves, must also bear some responsibility and some risk. How should incentives be aligned to encourage individuals to assume greater responsibility for their ongoing education?

We welcome comments on these ideas and encourage discussion of other ways to realign education and other public services to meet the demands of today's economy. Focusing on these issues can, we think, help the region get past good intentions to fundamental innovation in public services.

Get Started in 1997

Create a Metropolitan Economic Strategy Commission

The Governor should propose, and the 1997 Legislature should create, an ad hoc Metropolitan Economic Strategy Commission.

It would be a one-time body created to fulfill two functions: First, develop the first regional strategy, and second, propose what ongoing processes will be needed to update, monitor, and implement economic strategy on a regional basis.

The Commission should be charged with developing a comprehensive strategy for what steps the public sector—state, regional and local governments, including school districts—should take to position the metropolitan region for prosperity over the next 30 years.

The Commission should be directed to accomplish the following tasks:

Propose the vision that should guide the strategy. The vision should be based on the Twin Cities region's historic performance and its niche in the global hierarchy of urban regions. The vision should describe "who the Twin Cities will be" with enough clarity and precision to guide and limit the choices of strategies.

Outline key public sector strategies to prepare the region for prosperity, given the vision of the region's position.

These public sector strategies should focus on aligning existing public sector responsibilities—including K-12 and post-secondary education, infrastructure investment, revenue-raising—to meet new economic realities. Specifically, the Commission should be directed to propose:

- a plan for education improvements to improve the achievement of students and improve young people's preparation for the demands of the global economy. The plan should show how the education and training requirements of the business sector will be integrated into the educational systems (from high school through graduate school and continuing education), to improve the skills of the existing workforce and reduce the number of poorly trained and undereducated persons entering the labor market.

- a plan for infrastructure improvements that represent the best investment of public resources for the region's long-range prosperity. The plan should coordinate the wants of various elements of the business sector with the requirements of the public sector, considering infrastructure demand that is stimulated by urban growth simultaneously with infrastructure for future global competitiveness.

- a focused and coordinated plan for marketing and positioning the region as a competitive location for international businesses—those already located here, and those who might start or expand here.

- other proposals for public changes needed to implement the strategy.

Propose a systematic process for developing, updating, monitoring and reporting the results of the long-range strategy. The Commission should propose how key industry clusters should be involved in these ongoing activities. It should also propose how to report the results of the strategy and otherwise draw attention to the competitive status of the greater Twin Cities metropolitan community.

Propose permanent changes in local, regional and state governance that are needed given the new reality of the greater Twin Cities' metropolitan region—a 24-county, bi-state metropolitan area with increasing inter-state and international ties. The Commission should describe how roles and functional responsibilities should be assigned for various metropolitan public-policy and public-service matters. It should describe what permanent processes should be created to address metropolitan concerns.

Expected results from addressing the issues would be (1) a recommendation for how to reconcile the boundaries of the "real" economic region with the planning and implementation requirements of various functions; (2) a recommendation on the future role of the Metropolitan Council for policymaking, public services and economic strategy in relation to the "real" economic region; and (3) a plan for dealing with joint metropolitan issues with the Wisconsin counties included in the Twin Cities MSA.

How the Metropolitan Economic Strategy Commission should be set up:

The Governor should appoint the Commission and name its chair. The Commission should present its recommendations to the Governor, who should in turn propose the strategy to the Legislature.

The Governor should select 9 to 15 talented, thoughtful leaders from business, civic and public life who serve as citizens of the region. The Governor should select members who are distinguished by their regional perspectives, their understanding of global economic challenges, and their knowledge of and commitment to the public sector's role in providing for the foundations of the region's economic future. The members should not be chosen because of their role as leaders of interest groups nor should their service be as representatives of interest groups. The Commission may include legislators or other elected representatives from local governments, but these officials should serve as individuals, not as representatives of their jurisdictions.

The Commission may solicit testimony, research, proposals and other involvement from industries, public agencies, labor unions and relevant civic and community groups.

The Commission should prepare a written proposal for a strategy to position the "real" Twin Cities region for prosperity over the next 30 years, and should submit it to the Governor by October 1998. The Governor should propose the strategy to the Legislature by January 1999.

The Commission should be dissolved when its task is complete, in December 1998. The Board should not be responsible for implementation.

Once the Legislature adopts the strategy, all appropriate state, regional and municipal agencies and units of government must be required to show how their operating plans conform to the regional strategy.

Discussion

- **If the purpose is to develop a *regional* strategy, why have the Governor and state Legislature create a state-level commission?** The "real" Twin Cities metropolitan economy encompasses some 24 counties and accounts for well over half of the state's population. Only the State has jurisdiction to address public service concerns of this large a geographic area. More important, however, the regional strategy must deal with the core functions of state government—including K-12 and post-secondary education, transportation, and revenue policy—as well as traditional "economic development" activities currently carried out by its Department of Trade and Economic Development. While we recommend that the Commission propose what structures and processes are needed for regional strategy-making on a permanent basis, the initiative for the Commission itself must come from the State of Minnesota.

- **Why create a new entity? Why not have an existing agency develop the strategy?** We considered whether any of the existing units or agencies of government should be assigned this responsibility. We concluded that none of the existing institutions is appropriate to this task.

  The Metropolitan Council seemed the most likely and appropriate candidate for this role. However, the Metropolitan Council's jurisdiction only encompasses seven counties, and this boundary no longer corresponds to the boundaries of the real economic region. This jurisdictional problem must be resolved before the Council can be vested with the responsibility for developing a strategy for the region.

  Further, the attentions of the Council are currently absorbed in adjusting to its new operating responsibilities. And for a variety of reasons, some outlying communities might resist the Council's leadership on a regional strategy.

  The **Minnesota Legislature** should not itself develop the strategy. We have concluded that the Twin Cities metropolitan area fills a distinctive function in the global hierarchy of cities. The Legislature must base the strategy process on a recognition that the urban region is different from the state and requires a strategy that builds on its distinctive role. We also believe that the Legislature—or any other lawmaking body—is unlikely to have the time or the freedom from interest-group pressures to think strategically and long-term about positioning the Twin Cities region as a whole.

  The **Minnesota Department of Trade and Economic Development** is charged with delivering economic development programs for the state of Minnesota. As an executive branch agency, DTED should be viewed as a *contributor* to developing and implementing the strategy, rather than as a proposer of the strategy.

  A **council of governments**, or a commission of made up of representatives of various **interest groups** (business, labor, environmentalists, mayors, etc.) are the least attractive options. The Twin Cities region already suffers the ill effects of too many units of government motivated to advance their individual self-interests. And experience in Minnesota and elsewhere convinces us that assembling interest-group representatives can only result in stalemate or status quo.

Compete Globally,
Thrive Locally

What the Public Sector Should Do
To Help the Greater Twin Cities Region Prosper

Appendixes

Appendix A

Work of the Committee

Charge to the Committee on the Twin Cities in the Global Economy

What Steps Should the Public Sector Take to Position the Twin Cities Metropolitan Region for Prosperity in the Global Economy?

Background: There is growing agreement that the Twin Cities economy, like those of urban areas throughout the U.S., is becoming increasingly influenced by international forces. The internationalization signals a bigger change in the relationships among nations, regions, firms and the global economy.

The Citizens League has studied Minnesota's economy periodically, most recently in 1984, when it outlined strategies for enhancing the state's economic competitiveness. The League has also conducted numerous studies and developed expertise on a variety of issues related to economic competitiveness, including tax policy, development financing, education and infrastructure. The League brings a unique focus on institutional design to the question of how to position the Twin Cities for prosperity in a global economy.

Charge: The committee should respond to the question: What steps should be taken by the public sector to position the Twin Cities region to prosper in the global economy? In order to respond to this main question, the board anticipates that the study committee will address the following intermediate questions:

1. What are the distinguishing characteristics of Minnesota's economy, and how does it currently function within the emerging global economy?

2. What is the unique role that the Twin Cities metropolitan area now plays and should play in the future within the state economy?

3. How does the Twin Cities region measure up to what is needed to be effective in the global marketplace?

4. What recommendations have been made by local and other organizations on the topic in the recent past? What are the major themes of these recommendations?

5. How would institutions, industries and infrastructure have to be arranged in order for the needed strategies to be implemented successfully?

6. What specific changes should be made in key state, regional and local institutions to ensure these results?

Accompanying the report should be a proposal to the Citizens League board of directors recommending possible follow-up topics for detailed analysis and recommendations.

(This charge was approved on April 15, 1994.)

Committee membership

The committee was co-chaired by David Hunt and John Yngve. A total of 32 committee members took an active part in the work of the committee. In addition to the co-chairs, they were:

Greg Backlund
David J. Bennett
Lindley Branson
Robin Carpenter
Bright M. Dornblaser
Linda Ewen
Edward Fagerlund
David F. Fisher
Susan Huber
Eldon Kaul
Larry Kelley
Susan Koch
Raeder Larson
Charles Lutz
Robert MacGregor
Danolda D. Marcos
James L. Myott
Donald Newell
Dan A. Newman
Patrick O'Leary
Edward C. Oliver
Douglas Petty
Mark Pridgeon
Don Priebe
John T. Richter
Peter Ries, Jr.
Mary Ruch
James M. Stanton
J. Robert Stassen
Robert Teetshorn

Committee meetings and resource testimony

The committee met for the first time on August 16, 1994, and concluded its deliberations on May 21, 1996. The Citizens League Board of Directors approved the final report of the committee on June 19, 1996.

During its 60 full group meetings, the committee studied a variety of printed materials (see partial bibliography, Appendix C) and heard from the following resource speakers:

John Adams, professor of geography, planning and public affairs, University of Minnesota.

Paul Anton, economist and partner, Bugbee, Anton and Associates, Inc.

David Beal, senior business editor and columnist, *St. Paul Pioneer Press.*

George Bentley, chair of the transportation policy committee, Minnesota Chamber of Commerce.

Bill Blazar, vice president of government affairs and public policy, Minnesota Chamber of Commerce.

John Borchert, emeritus professor of geography, University of Minnesota.

John Brandl, professor of public affairs and planning, Hubert H. Humphrey Institute of Public Affairs.

R. Jane Brown, Commissioner of Economic Security, State of Minnesota.

Bill Byers, policy analyst, Metropolitan Council.

Robert Cline, director of tax research, Minnesota Department of Revenue.

George Copa, professor of vocational technical education, University of Minnesota.

Richard Dethmers, program manager, Minnesota Department of Economic Security (on 12/13/94).

Paul Farmer, director of planning, City of Minneapolis.

Nigel Finney, deputy executive director, Metropolitan Airports Commission.

Aimee Gallogly, treasurer , ADC Telecommunications, Inc.

Kathleen Gaylord, senior corporate counsel, Northwest Airlines.

Joe Graba, interim executive director, Minnesota Higher Education Coordinating Board (on 12/20/94).

Randall Halvorson, assistant division director, Minnesota Department of Transportation.

Jeff Hamiel, executive director, Metropolitan Airports Commission.

Elaine Hansen, Commissioner of Administration, State of Minnesota.

Robert Holt, interim dean of the College of Liberal Arts, University of Minnesota.

Curt Johnson, chair , Metropolitan Council.

Kathy Keeley, chief of staff, Minneapolis Mayor Sharon Sayles Belton (on 12/13/94).

Steve Kelley, attorney, Mackall, Crounse & Moore, and DFL state representative from Hopkins.

Rick Krueger, president, Minnesota High Technology Council.

Robert Kudrle, associate dean for research, Hubert H. Humphrey Institute of Public Affairs, and director of the Freeman Center for International Economic Policy.

Claudia Liebrecht, managing director, Minnesota World Trade Center Corporation, and director of international marketing and investment, Minnesota Trade Office.

Abigail McKenzie, director of the Office of Information, Analysis and Evaluation, Minnesota Department of Trade and Economic Development (on 9/20/94).

Lee Munnich, Jr., senior fellow and director of the state and local policy program, Hubert H. Humphrey Institute of Public Affairs.

Darin Narayana, executive vice president for world banking, Norwest Bank Minnesota (on 2/7/95).

Lee Nelson, president of Upper River Services, Inc.

Mike Nollan, air freight manager, 3M Logistics.

Lisa Peterson, vice president for government relations, Minnesota Trucking Association.

Douglas Petty, international management consultant.

Hazel Reinhardt, strategic planning consultant and demographer.

Steve Rothschild, founder and president/CEO, Twin Cities RISE!

C. Ford Runge, professor of applied economics, University of Minnesota.

Dan Salomone, executive director, Minnesota Taxpayers Association.

Sandra Scott, director of economic development, Greater Minneapolis Chamber of Commerce.

Cecil Selness, director of the Office of Railroads and Waterways, Minnesota Department of Transportation.

Duane Scribner, acting chair, Dayton Hudson Foundation and (on 1/10/95) member, Higher Education Coordinating Board.

Jeff Theis, director of the business education partnership, Carver-Scott Educational Cooperative.

Stephen Young, attorney in private practice, and former dean of the Hamline Law School.

Fredrick Zimmerman, director of graduate programs in manufacturing and engineering, University of St. Thomas.

Public participation

The Citizens League shared the work of the committee publicly and invited public comment throughout the process.

In addition to the 32 members who served officially on the committee, 36 people were correspondent members. These correspondents received all meeting minutes, and were invited to attend meetings as observers.

In the early stage of the study, the League held a series of Speak Ups! on the future prosperity of the Twin Cities region. Three of these meetings were held with League members who were interested in the issue but who did not participate in the full study. The rest of the meetings were held with other groups of citizens who were knowledgeable about and closely affected by the issues under study. Sixty-three people participated in these Speak Ups!, providing information and sharing viewpoints with the committee. The League acknowledges their valuable contribution. Below is a list of many of those who attended the Speak Ups! (Acknowledgment on this list does not imply the individuals' endorsement of the final report or its recommendations):

Paul Abzug
Alan Anderson
Buzz Anderson
Douglas Barr
Tom Beer
Tom Burke
Yvonne Cheung
Marie Grimm
Ron Grimm
Peggy Gunn
Roger Hale
Pat Hanson
Bob Heise
Jack Hoffner
Kate Hotchkiss
Daniel Hunt
Stan Hunt
Tim Joyce
Don Katagiri
Dennis Kim
Young-Hwa Kim
Bill Coleman
Wayne Cox
Jim Curran
Kris Danielson
Bob DeRoy
Bright Dornblaser
Ed Ellingson
Jinmahn Kim
Glen Lorenz
John Maas
Susan Mainzer
David McGee
Herman J Milligan
Bill Moore
Lisa Moore
William Nelson
Sharon O'Neal
Bart Osborn
Robert Pelka
Bob Porter
Elease Potter
Randi Erickson
Marilou Fallis
Muffie Gabler
Hector Garcia
Ted Garcia
Kelly Gardner
Al Giesen
Peter Raskind
Uttara Rasmussen
Bill Sands
Kevin SigRist
Stephen J. Smela
Liz Solem
Melenie Soucheray
Bruce Steuernagel
Ramon G. Tan
J. Kou Vang
Tong Vang
Tho Vu
Fred Wagner
John Wells

Several organizations convened these Speak Ups! in cooperation with the League. We acknowledge their leadership and assistance gratefully:

African American Chamber of Commerce
First Bank System
Minnesota AFL-CIO
Norwest Bank
Office of Mayor Norm Coleman, City of St. Paul
Department of Planning and Economic Development, City of St. Paul

The Citizens League thanks the following Speak Up! moderators and hosts:

Larry Bakken
Jim Dorsey
Robin Carpenter
Bob de la Vega
Linda Ewen
David Fisher
David Hunt
Sean Kershaw
Barbara Lukermann
Becky Malkerson
Dick and Lila Moberg
Dan Newman
John Richter
Hoa Young

Staffing

This report was prepared by Janet Dudrow. Lyle Wray provided staff assistance. Gayle Ruther and Trudy Koroschetz provided administrative support.

Acknowledgments

The Citizens League thanks Minnesota Technology, Inc., Lurie Besikof Lapidus & Company, Hamline University and the Minnesota Trade Office for providing meeting space for this project. The League also expresses appreciation to the Metropolitan Council for lending the videotape series, "The Competitive Advantage of Nations." Finally, we thank League member and volunteer Peggy Alnes for proofreading the final report.

Appendix B

Summary of Speak Ups!

The Citizens League conducted six Speak Ups! in May and June of 1995 in conjunction with this study. The purpose of these Speak Ups! was to solicit the views of Citizens League members and other people who have a personal perspective on global competitiveness issues. Twelve Speak Ups! were conducted, two with groups of League members and ten in cooperation with other community organizations. The discussions were informal, and interview questions varied from meeting to meeting.

The following is a summary of those discussions.

CL Member Speak Up!
May 22, 1995
Barbara Lukermann, host
David Fisher, moderator
Number attending: 8

[Participants received an early draft of the committee's findings in advance of the Speak Up!]

The Twin Cities metropolitan area needs a more effective metropolitan government, the group agreed. The Metropolitan Council seems to be devolving its power and by design can only act as an advisory council. To save money, bureaucracy and time, merge the cities of Minneapolis and St. Paul (and perhaps other jurisdictions in the metropolitan area), a few people suggested.

Another participant commented that the report draft uses economic terminology such as "investment return." The committee should be wary of such terminology. Public investments should not always be made on the basis of investment return; part of government's role is to do things that don't yield the highest return, but add to the quality of life.

There are two parts to the answer to what steps the public sector should take: (1) how can the Twin Cities region do better as a local economy? and (2) how should the region deal better with its place in the international economy?

One person encouraged the committee to consider employee ownership as one strategy to raise productivity, increase the incentive for company and workers to invest in training, and reduce the likelihood of the company moving away from the region.

The public sector should reduce subsidies for consumption, such as the tax preference for homeownership, several said, while noting that there is little the state can do without federal action.

Education: Residents of the Twin Cities need a better understanding of the cultures with which we wish to trade, the group said. The education system should ensure that students are exposed to the world and understand the place of the Twin Cities in the world economy. Today, "the provincialism is monumental." Schools must also train people with the skills that are marketable in today's workplace. The problem is that schools are trying to do everything but teach the skills needed in the economy.

Policymakers shouldn't think only about K-12 education, but should also be concerned about life-long education for adults. One of the barriers facing individuals who want further education is that they don't receive the benefit of post-secondary education until the degree is granted or the program completed. Apprenticeships are a way for individuals to reap some of the benefit of education while still in school.

Companies now face little incentive to provide their employees with ongoing training because employees can leave, several people pointed out. One solution would be to create a collective investment—a pool into which employers would contribute training resources that could be used by employees of many firms.

How to improve education to prepare workers for today's economy: Increase the amount of time students spend in school; make vocational and technical education a respected option for students; place stronger emphasis on geography, language and culture.

Infrastructure: Because of bottlenecks in Chicago, additional transportation investments here may not pay off very well, one person said. There is more to be gained from investments in telecommunications infrastructure, several agreed. Some of the Twin Cities' biggest industries are information based, but phone lines in the region (especially in St. Paul) can't handle many of the telecommunications options available.

Government should be careful what kind of infrastructure it invests in, the group said. Freeways for commuters and residential housing starts are infrastructure, but they are really consumption, not investment.

Infrastructure is being developed on the fringe of the metropolitan area, while infrastructure in the core is abandoned. When government is asked by companies for development assistance, there should be some criteria for deciding where such investment should go.

How to improve infrastructure to position the Twin Cities in the global economy: Invest in telecommunications; reinvest in rail transportation. Accept the reality of bottlenecks in Chicago; view Chicago as our customer, look at how other upper Midwest communities feed into our transportation network, and/or look at what we can do on our own—without Chicago.

CL Member Speak Up!
May 23, 1995
Dick and Lila Moberg, hosts
Dan Newman, moderator
Number attending: 6

[Participants received an early draft of the committee's findings in advance of the Speak Up!]

There were several questions about the finding that Minnesota's productivity has dropped. The committee was encouraged to verify that statistic and provide more background information to explain it.

Businesses are facing more competitors and more acute price pressures today, and both affect where the businesses locate. Minnesota and the Twin Cities have a tradition of home-grown companies that become world-class, and business leadership that is loyal to the community. We want the Twin Cities to be a place where businesses want to stay, the group agreed. As the leadership becomes more global, our ability to maintain our tradition of largesse may be jeopardized.

The most prominent Twin Cities companies are very global. Beyond this handful of companies, however, the region is probably fairly insular. Are we as equipped to deal with the world economy as other communities are?

The group discussed the issue of competitiveness, and whether Minnesota should strive to be "competitive." One person argued that overseas competition should be welcomed. "Competition causes people to come up with new ideas. That's what keeps an economy vigorous and creates jobs," he said. Another person said that the competitive model is a win-lose model, and that instead of thinking of Minnesota against others, we should think holistically.

The report's emphasis on investment and consumption was a surprise, one person said. He was expecting more "practical, functional stuff" about transportation and so forth. Government should think in market terms, asking "what are the needs of my customers?" The general policy should be to do what helps keep the customers you already have.

There was an extended discussion about the role of government. One person proposed that a healthy economy is marked by individuals "getting up in the morning and doing what's in their interest." The state should let consumers and the market make their own decisions about education and other investments, he said; the problem is a small group of people making decisions for everybody and lots of people being subsidized. There were several comments about the state's inhospitable business climate.

One possible explanation for Minnesota's productivity figures is the state's high share of employment in business services, where productivity has not grown as fast as manufacturing. Nevertheless, this is "a good sector to be in," one person said, and government should be thinking about what kind of technological and human capital infrastructure would attract and support high-end services.

The "scariest thing in the report," according to one person, was the finding that the University of Minnesota's status is slipping.

What steps should the public sector take? Among the suggestions: Increase the productivity of the K-12 system; encourage companies to promote lifelong learning; level the playing field by eliminating subsidies to certain businesses.

CL Member Speak Up!
May 25, 1995
John Richter, host
Robin Carpenter and Linda Ewen, moderators
Number attending: 7

[Participants received an early draft of the committee's findings in advance of the Speak Up!]

The group expressed concern about the report's emphasis on productivity. "We need to step back from assuming productivity is sacred," one person said. What's important isn't standard of living (which is a function of consumption) but quality of life, which implies a clean, safe environment, cultural diversity and other matters, not just economics. Standard of living is more easily measured, and managements tend to build up programs around what is measurable. But sometimes what is hard to measure is more important.

The education system is not measuring up, the group said. Private companies are ahead of what schools are doing; teachers don't know what business wants. We "need teacher term limits in K-12," one person said. "Rotate people more. Teachers are out of touch with today as well as the future. Schools are too insular." Kids are not getting the message that knowledge, skill and school are necessary to successful life.

Current environmental regulation is costly, several people said. The public sector should consider new ways to meet environmental goals. Pricing should reflect the full social cost of business decisions—congestion pricing on highways or full-cost pricing of infrastructure for businesses moving out to unused land, for example. If prices reflect social costs, the market and business' own innovation will do the rest.

Firms are structures for short-term profit; many are eating up capital to produce profits now. "How can the public sector encourage shareholders and firms to take a longer-term view?," one person asked.

The group agreed that the nature of employment is changing. There is a great mass of underemployed people. Employment is more unstable, and career paths aren't vertical, as people have come to expect. Companies and the public sector should put resources into assessing people's strengths, needs and competencies. Companies that do this have a competitive advantage.

Norwest Bank-First Bank System
May 24, 1995
Bob de la Vega and Becky Malkerson, hosts
David Hunt, moderator
Number attending: 18

Globalization and productivity are highly interrelated, the group said. The drive for productivity is a result of globalization. In an increasingly competitive environment, one of the few strategic options is productivity improvement.

The Twin Cities needs to make major investments in infrastructure, especially telecommunications infrastructure, and the window of opportunity for doing this may be disappearing. The infrastructure in the core of the Twin Cities is so deteriorated and implanted it will probably have to be destroyed and rebuilt.

Several people expressed concern about the inadequacies of the K-12 and post-secondary education institutions. "What prevents the schools from giving businesses what they want? Why aren't the technical colleges and other vocational programs not getting the job done?" they asked. The group encouraged the committee to "find a way to get these institutions to be more responsive." And, they said, the answer is not just to provide more dollars.

A big part of the problem is the lack of communication between businesses and teachers, one person said. The two groups are totally separated and don't understand each others' needs. Teachers are heavily regulated in what they must cover and don't get rewarded for bringing business into the classroom.

One participant, who noted that she was not a native of the Twin Cities, said that Twin Citians "talk regionally but don't act regionally." There is a lot of parochialism. The group said that regionalism is an important issue but it's not even clear how to define the region now.

The Twin Cities area has an unusual number of Fortune 500 companies, but the region hasn't done a good job of leveraging the presence of these major employers with educational institutions to help improve the quality of education. Would there be some way to bring together the major employers (under the auspices of the Minnesota Chamber or Minnesota Business Partnership, for example) and find out what jobs are on the horizon and what skills will be needed for those jobs?

There is a good deal of complacency here—an "attitude that this is the greatest place in the world and everyone should want to live here," as one person said. The public sector and citizens take businesses and the business climate for granted. They are behind in their consciousness and in the structures needed to deal with business.

African American Chamber Of Commerce
June 5, 1995
Robb Randle, host
David Fisher, moderator
Number attending: 2

[The African American Chamber of Commerce is developing small business "incubators" that will provide technical, financial, human resource and other assistance, and link entrepreneurs with start-up capital.]

People must begin to understand that the real competition is now from outside the Twin Cities; people should stop competing in a win/lose way with their co-workers and neighbors, but work together to meet the global competition.

African American entrepreneurs have tended in the past to open businesses that parallel what exists in the white community (funeral parlors, hairdressers, etc. targeted to African Americans). The African American community needs a new perspective; entrepreneurs should ask "what can we provide that's needed by others outside our community in Minnesota, the U.S. and abroad?" For example: Minnesotans should think about how to export our expertise in living in cold-weather conditions by marketing the "technology of cold weather" internationally.

Access to start-up capital for small businesses is a problem. The SBA only lends to established businesses, so it isn't really a small business association. African American businesses are often turned down by conventional lenders because the owners aren't "connected to the circle." African American business owners don't think they'll be evaluated fairly and that "turns them off to the system...it seems to be a very clear racial issue."

People don't automatically know how to be entrepreneurs. Most people in corporations hate their supervisors, but if they go off on their own they have a hard time working without supervision. There should be a program in the community that teaches people how to be entrepreneurs and that gives them some credible credentials to present to lenders and others.

People should rethink their perception of who is in the global economy. The global economy isn't just the big companies, but smaller entrepreneurs doing international business. What are the issues these businesses face? People of color should be encouraged to think up global opportunities. For example, we should think of Africa as presenting wonderful global trade and other opportunities. Integrate Africans and African Americans in exchange projects that benefit both.

Minnesota AFL-CIO
June 8, 1995
Lisa Moore, host
David Fisher, moderator
Number attending: 7

Participants encouraged the staff and committee to verify many of the statistics cited in the report, which they viewed as "suspect." [Staff made notes of specific examples.] One person said that the study "doesn't make sense" and said the major conclusions were "questionable." The committee appears to have adopted the narrow view that government is a drag on the economy, he said. However, the key economic literature puts a stronger emphasis on the role of public investment in promoting economic growth. Minnesota has disinvested in things that have made the state strong. The state has cut back on higher education, infrastructure, and research and has underinvested in K-12 education, diverting the funds to business subsidies. Minnesota has benefited from a superior education sector, but we are putting that at risk.

The committee should be cautious in its recommendations to focus on productivity improvement in the service sector, one person said. Minnesota has a strong record of job creation overall, and low unemployment, but the strongest job growth has been in lower-wage jobs in the service sector—jobs that are often accompanied by higher social costs. Investing in service jobs to increase productivity can be expected to raise wage rates, but that could, in turn, curb job growth, since employers want to limit costs. Thus the paradox: productivity and quality can increase, but with the threat of job loss. In the long run, people may be better off, but in the short run, it's painful.

Many middle managers in business cling to Taylorism, one person said. Managers are concerned foremost about making money, so they use methods that get the most output from people short-term, instead of training people and investing broadly for the long term. It's a difficult mindset to break, he said.

Most schools assume that every student will go to college, but that is "hogwash," according to one participant. Several said that the K-12 system isn't performing. The focus in higher education is on making money. The vocational colleges focus on narrow skills; they "teach people how to fix a transmission, not how to be a mechanic." Despite these concerns, others said, Minnesota's education system is still highly rated compared with other states. The technical colleges do a good job of relating to the employers in their own communities; the problem is that the economic engines in those communities have changed.

We will see a shakeout in the post-secondary systems following the merger and in response to the new "price of government" policies, one person predicted. The public sector is now deciding how much it has to spend and what results will be expected. We will see campus closures, program realignments, layoffs and other changes—the "stupid version of less government is better government." The system has to rationalize itself, he said, but the process will be driven by fiscal matters rather than by a clear idea of what higher education should be accomplishing.

Appendix C

Bibliography

A partial listing of resource materials on competitiveness topics

Adams, John S. "The Regional Service Economy—A Contemporary Mirage?" *Journal of Applied Manufacturing Systems,* Spring 1990, pp. 3-9.

Anderson, Gary. *Creating Competitive Economic Regions: The New Economics of Comparative Advantage.* SRI International, Business Intelligence Program, April 1993.

Bartik, Timothy. *Who Benefits from State and Local Economic Development Policies?* Kalamazoo, MI: The W.E. Upjohn Institute for Employment Research, 1991.

Burstein, Melvin L. and Arthur J. Rolnick. "Congress Should End the Economic War Among the States." *The Region,* Federal Reserve Bank of Minneapolis Annual Report, 1994, pp. 3-16.

Chuang, John. "A Skill of One's Own." *The New Economy,* November 1994.

Cobb, Clifford, Ted Halstead and Jonathan Rowe. "If the GDP is Up, Why is America Down?" *Atlantic Monthly,* October 1995, pp. 59-78.

Cohen, Stephen S. and John Zysman. *Manufacturing Matters: The Myth of the Post-Industrial Economy,* New York: Basic Books, 1987.

Committee for Economic Development. *Leadership for Dynamic State Economies,* New York: CED, 1986.

Cortright, Joseph. "Learning to Compete Again." *State Legislatures,* October 1994, pp. 32-35.

Cortright, Joseph. "Reinventing Economic Development: Ten Ideas for Market-Driven Approaches to Promoting Industrial Competitiveness." Staff Report to the Joint Legislative Committee on Trade and Economic Development, State of Oregon, October 1994.

Dahl, David. “Productivity Primer: How Does an Economy Grow?” *Fedgazette*, April 1995.

Downs, Thomas. "Restoring Public Confidence in Infrastructure Investment." *Intergovernmental Perspective*, Fall 1993/Winter 1994.

Drucker, Peter F. “The Age of Social Transformation.” *Atlantic Monthly*, November 1994, pp. 53-80.

Drucker, Peter F. "The New Productivity Challenge." *Harvard Business Review*, November/December 1991, pp. 69-79.

Dumas, Lloyd J. *The Overburdened Economy: Uncovering the Causes of Chronic Unemployment, Inflation and National Decline*, Berkeley: University of California Press, 1986.

“Economic Growth: The Poor and the Rich.” *The Economist*, May 25, 1996, pp. 23-25.

Fallows, James. *Looking At The Sun: The Rise of the New East Asian Economic and Political System.* New York: Pantheon, 1994.

Farnham, Alan. "Global—or Just Globaloney?" *Fortune*, June 27, 1994, pp. 97-100.

Fieleke, Norman S. "Is Global Competition Making the Poor Even Poorer?" *New England Economic Review*, November/December 1994, pp. 3-16.

Fingleton, Eamonn. *Why Japan is Still on Track to Overtake the U.S. by the Year 2000*, New York: Houghton Mifflin, 1995, pp. 53-58.

Flynn, Patricia M. "Technology Life Cycles and State Economic Development Strategies." *New England Economic Review*, May/June 1994.

Forrestal, Robert P. “Economic Development for the 21st Century: New Measures of Well-Being.” *The Region*, June 1994, p. 25-30.

Fry, Earl H. “State and Local Governments in the International Arena.” *Annals of the American Academy of Political and Social Science*, May 1990.

Gabor, Andrea. “Rochester Focuses: A Community's Core Competence.” *Harvard Business Review*, July-August 1991, pp. 116-126.

Geber, Beverly. "Retrain Who To Do What?" *Training*, January 1993, pp. 27-34.

George, William W. "Medical Technology and Competitiveness in the World Market: Reinventing the Environment for Innovation." Remarks Before the Food and Drug Law Institute's 38th Annual Educational Conference, December 13, 1994.

German Marshall Fund of the United States. *Divided Cities in the Global Economy: Human Strategies* (The 1992 European-North American State-of-the-Cities Report), 1992.

Goodall, Leonard E. "Global Competitiveness: World Problem and American Response." *Public Administration Review,* May/June 1993, pp. 268-270.

Gorham, Lucy. *No Longer Leading: A Scorecard on U.S. Economic Performance and the Role of the Public Sector Compared with Japan, West Germany and Sweden.* Washington, D.C.: Economic Policy Institute, undated.

Greenspan, Alan. "The Creation of Economic Value in the 21st Century." *The Region,* December, 1995, pp. 37-42.

Grossman, Gene and Elhanan Helpman. *Innovation and Growth in the Global Economy.* Cambridge MA: MIT Press, 1991.

Hanushek, Eric et al. *Making Schools Work: Improving Performance and Controlling Costs.* Washington, D.C.: The Brookings Institution, 1994.

Harrison, Bennett and Barry Bluestone. *The Great U-Turn: Corporate Restructuring and the Polarizing of America.* New York: Basic Books, 1985.

Harrison, Lawrence E. *Who Prospers: How Cultural Values Shape Economic and Political Success.* New York: Basic Books, 1992.

Hayes, Robert H. "U.S. Competitiveness: 'Resurgence' versus Reality." *Challenge,* March/April, 1996, pp. 36-44.

Holmes, Thomas J. "Analyzing a Proposal to Ban State Tax Breaks to Businesses." *Quarterly Review* (Federal Reserve Bank of Minneapolis), Spring 1995, pp. 29-39.

Hopfensperger, Jean. "Germany's Fast Track to a Career." *Star Tribune,* April 15, 1996.

"Inequality: How the Gap Between the Rich and Poor Hurts the Economy." *Business Week,* August 15, 1994, pp. 78-83.

Ivy, Russell Lee. "Airline Hubs: Changes in Urban Employment Structure and Network Connectivity." Ph.D. Dissertation, University of Florida, 1992.

Jacobs, Jane. *Cities and The Wealth of Nations.* New York: Random House, 1984.

Johnson, Gary T. and Christopher Silver. "Indicators: A Crucial Tool for Monitoring Global Cities." *APA Journal,* Spring 1996.

Kanter, Rosabeth Moss. *World Class: Thriving Locally in the Global Economy,* New York: Simon & Schuster, 1995.

Kincaid, John. "State and Local Governments Go International." *Intergovernmental Perspective,* Spring, 1990, pp. 6-9.

Kresl, Peter Karl. "Urban Reponses to Structural Change in the Global Economy: Trade and Technology." Unpublished manuscript, Bucknell University, March 1995.

Kresl, Peter Karl and Balwant Singh. "The Competitiveness of Cities: The United States," *Cities in the New Global Economy.* Melbourne, Australia: OECD and The Australian Government, 1995.

Kresl, Peter Karl and Gary Gappert, eds. "North American Cities in the Global Economy," *Urban Affairs Annual Review,* Vol. 44, 1995.

Krugman, Paul. *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations.* New York: Norton, 1994.

— "Proving My Point." *Foreign Affairs,* July/August 1994, pp. 198-203.

— *The Age of Diminished Expectations: U.S. Economic Policy in the 1990s.* Revised and updated edition, Cambridge, MA: MIT Press, 1994.

"Learning to Cope." *The Economist,* April 6, 1996.

Luttwak, Edward N. *The Endangered American Dream.* New York: Simon & Schuster, 1993.

Maitland, Ian. "Who Won the Industrial Policy Debate?" Minneapolis: Center of the American Experiment, November 1994.

Marshall, Ray and Marc Tucker. *Thinking for a Living.* New York: Basic Books, 1992.

McKenzie, Richard B. "Free to Move: The Economic Foundations of the States' Bidding War for Business." Minneapolis: Center of the American Experiment, December 1993.

Mechling, Jerry. "Lessons from an 'Intelligent Island.'" *Governing*, June 1996, p. 84.

"Mobility in America: Up, Down and Standing Still." *The Economist*, February 24, 1996.

"More Than A Field of Dreams: Creating a High-Skill and A High-Wage Economy." *Northwest Report*, February 1995, pp. 2-6.

Morita, Akio. "Toward a New World Economic Order." *Atlantic Monthly*, June 1993, p. 88-98.

Munnich, Lee, Jr. *Emerging Principles in State and Local Economic Development: A Benchmarking Tool.* Hubert H. Humphrey Institute of Public Affairs, University of Minnesota, July 1995.

National Center on the Educational Quality of the Workforce (Bureau of the Census). *The Other Shoe: Education's Contribution to the Productivity of Establishments* (A Second Round of Findings from the EQW National Employer Survey), University of Pennsylvania, 1995.

National Commission on Intermodal Transportation. *Toward a National Intermodal Transportation System* (Final Report), Washington, D.C., 1994.

National Computer Board (Singapore). *A Vision of an Intelligent Island: The IT2000 Report,* March 1992.

Newfarmer, Gerald E. "Rebuilding America: A Plan to Reinvest in America's Physical Infrastructure." Remarks to the National Urban Policy Group, November 9, 1992.

"Objectives and Decision Criteria for Infrastructure Investment," *Research Results Digest*, Transportation Research Board, National Research Council, Number 200, November 1994.

Ohmae, Kenichi. "The Rise of the Region State." *Foreign Affairs,* Spring 1993, p. 78-87.

Organization for Economic Cooperation and Development, Neighborhood Employment Network, *OECD Jobs Study,* 1994.

Orum, Anthony M. *City Building in America,* Boulder, Co: Westview Press, 1995.

Peirce, Neal R., Curtis W. Johnson and John Stuart Hall. *Citistates: How Urban American Can Prosper in a Competitive World.* Washington, D.C.: Seven Locks Press, 1993.

Petrella, Riccardo, "World City-States of the Future," New Perspectives Quarterly, Fall 1991.

Pilcher, Dan. "The Third Wave of Economic Development." *State Legislatures,* November 1991, pp. 34-37.

Porter, Michael E. "The Rise of the Urban Entrepreneur," *Inc.,* May 16, 1995, pp. 104-119.

Porter, Michael E. *The Competitive Advantage of Nations: Creating a Competitive National, State or Local Economy.* Harvard Business School Management Programs, 1993.

Prestowitz, Clyde V., Jr. et al. "The Fight over Competitiveness." *Foreign Affairs,* July/August 1994, pp. 186-203.

"Principles for Federal Infrastructure Investments." (Executive Order 12893 of January 26, 1994), *Federal Register,* January 31, 1994.

Putnam, Robert D. "The Prosperous Community: Social Capital and Public Life." *The American Prospect,* Spring 1993, p. 35-42.

Putnam, Robert D. "The Strange Disappearance of Civic America." *The American Prospect,* Winter 1996, p. 34-48.

Reynolds, Paul. "Turmoil Today, Jobs Tommorow." *The New Economy,* December, 1994.

Rivlin, Alice M. "Budgeting for Performance." *Intergovernmental Perspective,* Fall 1993-Winter 1994.

Ross, Doug and Robert E. Friedman. "The Emerging Third Wave: New Economic Development Stategies in the 90s." *Entrepeneurial Economy Review,* Autumn 1990, pp. 3-10.

Runge, C. Ford. "The North American Free Trade Agreement (NAFTA): Issues and Impacts for Minnesota." Center for International Food and Agricultural Policy, May 1993.

Samuelson, Robert J. *The Good Life and Its Discontents: The American Dream in the Age of Entitlement 1945-1995.* Times Books, 1996.

Schweke, William, Carl Rist and Brian Dabson. *Bidding for Business: Are Cities and States Selling Themselves Short?* Corporation for Enterprise Development, 1994.

Shaw, Russell. "Georgia: The Peach State's Global Reach." *Trade and Culture,* January/February 1995, pp. 82-85.

Smith, Hedrick. *Rethinking America,* New York: Random House, 1995.

Smoler, Fredrick. "Bretton Woods Revisited." *Audacity,* Spring 1995, pp. 40-43.

— "The History of Globalization." *Audacity,* Fall 1996, p. 3.

Stedman, Lawerence C. "The New Mythology About the Status of the U.S. Schools." *Educational Leadership,* February 1995, pp. 80-85.

Stegman, Michael A. and Margery Austin Turner. "The Future of Urban America in the Global Economy." *APA Journal,* Spring 1996.

Tannenvald, Robert. "State Business Tax Climate: How Should It Be Measured and How Important Is It?" *New England Economic Review,* January/February 1996.

"Technology and Unemployment: A World Without Jobs?" *The Economist,* February 11, 1995, p. 21-23.

Testa, William A. "Trends And Prospects For Rural Manufacturing." *Economic Perspectives* (Federal Reserve Bank of Chicago), March/April 1993, pp. 27-35.

"The Mystery of Growth." *The Economist,* May 25, 1996, pp. 15-16.

Tolchin, Susan J. "The Globalist from Nowhere: Making Governance Competitive in the International Environment." *Public Administration Review,* January/February 1996.

Toman, Michael A. "Economics and Sustainability: Balancing Trade-offs and Imperatives," *Land Economics,* November 1994.

"Training and Jobs: What Works?" *The Economist,* April 6, 1996.

U.S. Department of Transportation. *Financing the Future: Report of the Commission to Promote Investment in America's Infrastructure.* February 1993.

United States General Accounting Office. *Export Promotion: Rationales For And Against Government Programs and Expenditures,* (Testimony Before the Subcommittee on Procurement, Exports, and Business Opportunities, Committee on Small Business, U.S. House of Representatives), GAO/T-GGD-95-169, May 23, 1995.

United States General Accounting Office. *International Aviation: DOT Needs Better Data for Monitoring and Decisionmaking,* (Testimony Before the Committee on Commerce, Science and Transportation, U.S. Senate), GAO/T-RCED-95-240, July 11, 1995.

United States General Accounting Office. *School Facilities: America's Schools Not Designed or Equipped for 21st Century.* GAO/HEHS-95-95, April 1995.

United States General Accounting Office. *Telecommunications: Initiatives Taken by Three States to Promote Increased Access and Investment.* GAO/RCED-96-68, March 1996.

"Widening Wage Inequality." The Urban Institute Policy and Research Report, Winter-Spring 1995, pp. 4-6.

Wieffering, Eric J. and Lee Schafer. "The New Venture Capitalists—Taxpayers." *Corporate Report,* August 1995, pp. 24-34.

"World City-States of the Future." *New Perspectives Quarterly,* Fall 1991.

Zimmerman, Fredrick. "Our Industrial Economy Revisited." Remarks to the Minneapolis Rotary Club, September 24, 1993.

Zimmerman, Fredrick. *Measurement of the Industrial Economy.* St. Paul: University of St. Thomas Technology Press, 1995.

Zimmerman, Fredrick. "Minnesota's Manufacturing Future." *Twin Cities Business Monthly,* April 1994, pp. 56-63.

Recent Research and Planning on Minnesota and the Twin Cities

Adams, John S., Laura J. Lambert and Barbara J. VanDrasek. "Poverty and Urban Decline: The Twin Cities Compared With Ten Other Metropolitan Areas." *CURA Reporter*, December 1995, pp. 1-8.

Adams, John S. and Barbara J. VanDrasek. *People, Place and Public Life.* Minneapolis: University of Minnesota Press, 1993.

Ahlburg, Dennis A., Yong-Nam Song and Scott Leitz. *Are Good Jobs Disappearing?: What the 1990 Census Says About Minnesota.* Center for Urban and Regional Affairs, 1995.

Anderson, Steven J. *An Analysis of the Minneapolis-St. Paul International Airport Cargo Market.* Minneapolis-St. Paul Metropolitan Airports Commission, October 1993.

Beal, David. "The Underlying Force in The Area's Economic Turbulence." *The Region,* September 1991, pp. 5-11.

Blazar, William A. "Satellite Cities." *Commentary,* Spring/Summer 1992, pp. 22-29.

Brandl, John and Vin Weber, *Agenda for Reform: Competition, Community, Concentration,* (Report to Governor Arne Carlson), November 1995.

Campbell, Candace. *The Future of Work in Minnesota: Connecting Workforce and Economic Development Policy,* (June 19, 1995 draft).

Cassano, Dennis and Mike Kaszuba. "Twin Cities: How Far Will We Grow?" *Star Tribune,* March 3, 1996.

Cassano, Dennis. "Minne-Sconsin: Officials in Wisconsin, Minnesota See Need to Coordinate Development." *Star Tribune,* November 12, 1995.

Citizens League. *Accountability for the Development Dollar,* 1985.

— *Building on Strength: A Competitive Minnesota Economic Strategy,* 1984.

— *Choose Reform, Not Declining Quality,* 1995.

— *Commitment to Focus: More of Both,* 1986.

— *Wiring Minnesota: New State Goals for Telecommunications,* 1989.

Competitiveness Task Force (State of Minnesota). *Report to the Minnesota Legislature*, February 1, 1996.

DFL Business Task Force, *Creating Minnesota's Economic Future* (Discussion Draft), January 17, 1994.

Economic Resource Group. *1994 Economic Report to the Governor*, 1994.

Fruin, Jerry and Dan Halbach. "Barge Movements on the Upper Mississippi River: Trends and Projections 1963-2002," Staff Paper P94-19, Department of Agricultural and Applied Economics, University of Minnesota, August 1994.

Goetz, Edward G. and Terrence Kayser. "Competition and Cooperation in Economic Development: A Study of the Twin Cities Metropolitan Area," *Economic Development Quarterly*, Vol. 7, No., 1, February 1993, pp. 63-78.

Goldman Sachs U.S. Research, *Northwest Airlines Corporation/UAL Corporation*, January 4, 1995.

Greater Minneapolis Chamber of Commerce. *Building Our Future: Economic Development Strategies for the Twin Cities Metropolitan Region*, December 1993.

Greater St. Paul Tomorrow. *Striving for a Stronger East Metro Area*, May 1993.

Hennepin International Trade Services. *Strategic Direction 1996-1998*, 1996.

Hubert H. Humphrey Institute of Public Affairs, University of Minnesota. *The University of Minnesota as an Engine of Economic Growth*, April 1, 1992.

Loughlin, Melissa Joy. "Overseas Passenger Air Access at Minneapolis-St. Paul." M.A. Thesis, Department of Geography, University of Minnesota, August 1994.

Maki, Wilbur. *From Global Competition to Regional Governance: New Paradigms for Regional Policy in the 1990s.* Staff Paper P94-21, Department of Agricultural and Applied Economics, University of Minnesota, November 1994.

Maki, Wilbur. *Meeting the Global Challenge: How is Global Competition Reshaping the Twin Cities?* Prepared for the Citizens League Mind Opener Breakfast Series, Minneapolis, December 14, 1993.

Maki, Wilbur. *Minnesota's Place in the Global Economy.* Staff Paper P88-18, Department of Agricultural and Applied Economics, University of Minnesota, 1988.

Mason, Tom. *What Business Thinks.* Vadnais Heights, MN: What Business Thinks Project, 1995.

Mayor Coleman's Economic Advisory Council. *Recommended Citywide Economic Agenda,* March 1994.

Metropolitan Airports Commission. *Dual Track Airport Planning Activities: 1995 Annual Report to the Legislature,* February 1996.

Metropolitan Council. *The Twin Cities Economy in Profile,* Regional Research Update, June 1995.

Metropolitan Council. *Regional Blueprint,* September 1994.

Metropolitan Council and University of Minnesota. *Twin Cities Industry Cluster Study,* July 1995.

Meyers, Mike. "Study Says that the Price of Twin Cities Flights Soars Above Average." *Star Tribune,* April 16, 1996.

Minneapolis Youth Trust. *New Workforce,* June 1994.

Minnesota Business Partnership. *Enhancing Minnesota's Economic Competitiveness: An Industry-Specific, State-Specific Approach,* 1992.

Minnesota Business Partnership. *Readiness: Connecting Education, Employment, Work and Learning,* December 1992.

Minnesota Business Partnership. *Transformation: What Minnesota Business Needs from Education,* December 1992.

Minnesota Department of Trade and Economic Development. *Economic Blueprint,* November 1992.

Minnesota Department of Transportation. *Minnesota Statewide Transportation Plan,* Final Draft, January 1995.

Minnesota District Export Council and Arkansas District Export Council. *Report from the First DEC Forum on International Competitiveness,* United States Department of Commerce, International Trade Administration, February 28, 1994.

Minnesota High Technology Council, *Keeping the Competitive Edge: Positioning Minnesota for the Future in the Global Marketplace,* 1995.

Minnesota Planning. *Cyberstate: Minnesota on the Information Superhighway,* May 1994.

Minnesota Planning. *Tomorrow's Labor Force.* July 1994.

Minnesota Planning. *Within Our Means: Tough Choices for Government Spending,* January 1995.

Minnesota Private College Research Foundation. *Great Expectations: Employment Issues and Trends for Young College Graduates,* January 1996.

Minnesota Private College Research Foundation. *Ways and Means: How Minnesota Families Pay for College,* November 1992.

Minnesota Trade Office. *Foreign Direct Investment Growth in Minnesota Manufacturing: Trends, Impacts and Location Factors,* January 1995.

Minnesota Trade Office. *Minnesota and the Global Community.* February 1996.

Mississippi River Coordinating Commission and National Park Service, United States Department Of The Interior. *Final Comprehensive Management Plan And Environmental Impact Statement,* May 1994.

Need for Intermodal Railroad Terminal Facilities in the Twin Cities Metropolitan Area, Minnesota Intermodal Railroad Terminal Study, February 1995.

Office of the Legislative Auditor, State of Minnesota. *State Grant and Loan Programs for Business,* February 1996.

Petty, Douglas and Mark Vander Schaaf. *Research for an Internationally Competitive Regional Economy,* a White Paper for the Metropolitan International Economic Development Strategy Executive Committee, October 20, 1993.

State of Minnesota. *The Report of The Governor's Commission on the Economic Future of Minnesota,* 1987.

Steuernagel, Bruce. The *Job Gap Study,* St. Paul, MN: JOBS NOW Coalition, 1995.

Stinson, Thomas F. and Margaret Dewar. "Strategies for Economic Development." *CURA Reporter,* May 1995.

Twin Cities Economic Development Study, (Phase II Report), Prepared for the Twin Cities Economic Development Planning Group by Hammer Siler George Associates, March 31, 1994.

U.S. Army Corps of Engineers (St. Paul, Rock Island and St. Louis Districts). *Upper Mississippi River-Illinois Waterway System Navigation Study,* Illinois Waterway Reconnaissance Report, 1991, and Upper Mississippi River Reconaissance Report, 1992.

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The Citizens League promotes the public interest in Minnesota by involving citizens in identifying and framing critical public policy choices, forging recommendations and advocating their adoption.

The Citizens League has been an active and effective public affairs research and education organization in the Twin Cities metropolitan area for more than 40 years.

Volunteer research committees of League members study policy issues in depth and develop informational reports that propose specific workable solutions to public issues. Recommendations in these reports often become law. Over the years, League reports have been a reliable source of information for governmental officials, community leaders, and citizens concerned with public policy issues of our area.

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of the public sector; as the required skills become more advanced and greater specific to a particular business, employers have more self-interest in providing training, and should have more responsibility for doing so.

Public-sector institutions will have to do a better job of preparing young people to be competent entry-level workers. And they will have to do a *much* better job with students of color. The current record among students of color is lamentable for reasons of social equity. But the record also must improve for economic reasons as well—because after 2015, *all of the increase in the size of Minnesota's labor force will come from nonwhite workers.* The region cannot afford the academic failure of 50 percent or 60 percent of the group that will be the only source of additional workers.

The region's third workforce priority should be attracting the "best and brightest" young adults from throughout the U.S. and abroad to the Twin Cities, and keeping our brightest young adults here. A constant infusion of leading-edge thinkers with cosmopolitan perspectives creates the conditions that foster excellence, industry innovation and internationalism. The Twin Cities must be a place that attracts the most talented, promising young adults. And bright, academically talented young people who grow up in the Twin Cities should have a reason to want to stay here. "Talent magnets" occur increasingly as a result of the presence of world-class industry clusters.

What about people who are harder-to-employ? If the region does a good job at the first two priorities—ensuring that all young people get a good basic education, and prodding adult workers and employers to sharpen their skills continuously—the numbers of the "hard-to-employ" should reduce. People who are now chronically unemployed or underemployed represent a small share of the population, so their productivity isn't definitive. Nevertheless, society has an interest in maintaining labor-force attachment and economic opportunity—for reasons that have to do with social cohesion.

There are some good efforts under way in the Twin Cities region to meet the specific needs of this group of workers. More will be needed. The challenge is an important one, and the issues beyond the scope of this report.

But we caution: Neither citizens nor policymakers should deceive themselves that a competitive workforce can be achieved simply by improving the skills of those relatively few individuals who are now on the fringe of the labor force. The *existing* workforce, basically well-educated citizens already in "good jobs," must be challenged to upgrade their skills.