

APC ARIZONA POLICY CHOICES JANUARY 2000

The New Economy: Policy Choices for Arizona

The new economy is the buzz-phrase for the new millennium's first year. Everyone agrees that our economy is fundamentally changing. But what *is* the new economy? What does success mean in the new economy? And, most important for Arizona, how can we take advantage of the new economy to ensure prosperity for our state's people and places?

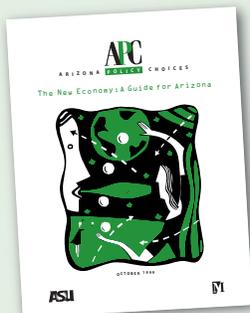
Morrison Institute for Public Policy explored these questions in its October 1999 publication, ***The New Economy: A Guide for Arizona***. We described the new economy in terms of eight broad characteristics:

- *Technology is a given*
- *Globalism is here to stay*
- *Knowledge builds wealth*
- *People are the most important raw material*
- *There's no such thing as a smooth ride*
- *Competition is relentless*
- *Alliances are the way to get things done*
- *Place still matters—but for different reasons*

It's a Whole New World

Four themes emerged from Morrison Institute's description of the new economy. First, the new economy isn't just about one thing. Most people think of the new economy as simply the Internet. After all, it's the "dot-com" companies that are the darlings of Wall Street, and the young "dot-com" entrepreneurs who are getting rich as a result. But the new economy involves much more than clicking, buying, and chatting. It's really the result of many forces coming together, including global markets, technological advances, intense competition, and so on—all of which can create more opportunities and productivity for businesses, and therefore greater profits.

Second, the new economy isn't just a phenomenon of high-tech wizards who get rich when their companies go public. It's really built on a broad foundation of businesses and workers who have learned to work smarter. The wealth in the new economy comes, in large part, from knowing how to take advantage of technology and networks in dozens of different ways.



A Follow Up to THE NEW ECONOMY: A GUIDE FOR ARIZONA

This publication follows up on *The New Economy: A Guide for Arizona* that Morrison Institute for Public Policy published in October 1999. The guide for Arizona described the new economy and provided data on where Arizona stands. This report offers a broad set of choices to help Arizona's people and places to prosper in the new economy. *The New Economy: A Guide for Arizona* is available on Morrison Institute's web site, www.asu.edu/copp/morrison, as is this publication.



And more and more, investors understand this. That's why Wall Street is looking beyond Internet start-ups to companies that know how to seize opportunities in the new economy, such as UPS and Federal Express. These companies don't just ship the products sold in the new economy, they know how to make information technology and other new economy tools increase their competitiveness and profits.

Third, the competitive advantage of a specific *place*—a state, a region, or a city—now depends more than ever on the *quality* of that place and the *quality* of the people who live there. Places cannot hope to succeed in the new economy because of old-fashioned advantages such as proximity to raw materials or markets. Proximity doesn't matter much anymore. But the concept of "place" matters a lot.

Place matters because networking and access to such features as airports, trade associations, universities, and research consortia are more important than ever. Knowing how to create competitive advantage out of these local assets is becoming strategically important for companies and regions. So is the quality of a place—the combination of culture, recreation, amenities, and lifestyle that will attract and retain the skilled workers the new economy requires.

People matter because of the importance of a well-trained, knowledge-oriented workforce in virtually all businesses today. Nowadays about 80 percent of workers move things, process or generate information, engage in research and design, or provide services to people. Even those engaged in manufacturing (the other 20%) are becoming "knowledge workers" because they must understand systems and technology much more than their assembly-line predecessors.

In the new economy, successful companies are the ones that can hire and retain highly skilled knowledge workers—no matter what their job description might be. Successful regions are those capable of providing a workforce that can handle the challenges of the new economy.

A fourth theme in Morrison Institute's new economy guide is that no one—not business owners, students, workers, parents, and especially, public policymakers—can afford to ignore the new economy. Like it or not, businesses are part of the new economy no matter what they make or sell. Students have to understand the skills and knowledge they will need to thrive. Educators and parents must look beyond their own experiences to guide today's students. Public policymakers and civic leaders must understand that what makes an area prosperous and the strategies for fostering economic growth are changing.

The need for research, capital, and technology are familiar to anyone conversant with the old economy. But their significance, and the connections among them, have increased dramatically in the new economy. More than ever, economic growth depends on new ideas and technological advances to lower costs, increase productivity, and tap into global markets. Ideas and technology come from research and smart people, and research and smart people depend on the availability of capital and top-notch education and training. When talent, research, and capital come together, all sorts of opportunities to turn knowledge into lucrative new products and services emerge.

Arizona's Ties to the New Economy

Morrison Institute's October 1999 report asked pointed questions about Arizona and the new economy. How is Arizona doing in the new economy? Is the state on the right track to evolve along with the new economy?

The report presented a generally upbeat assessment of Arizona's role in the new economy based on a number of recent national comparisons. Arizona got high marks for strong electronic and aerospace manufacturing industries, its ties to growing international markets, its large number of fast-growing companies, its innovation capacity, and its quality of life. However, the publication also warned that the state will suffer if it fails to solve some serious, vexing problems. Unfortunately, the list of threats to the state's new economy success is as long as its list of strengths.

Chief among these threats is a looming shortage of knowledge workers. This problem is caused generally by a struggling education system that affects everyone and specifically by the growing gap between the "haves" and "have-nots," in income, education, technical skills, and access to technology. Other threats include: a limited R&D base (Arizona has more high-tech branch office jobs than research jobs), inadequate venture capital; and few start-up firms that result from university research. Finally, many surveys show that the state's residents are very unhappy with the high rate of population growth and the resulting traffic congestion and negative effects on the environment and their quality of life.

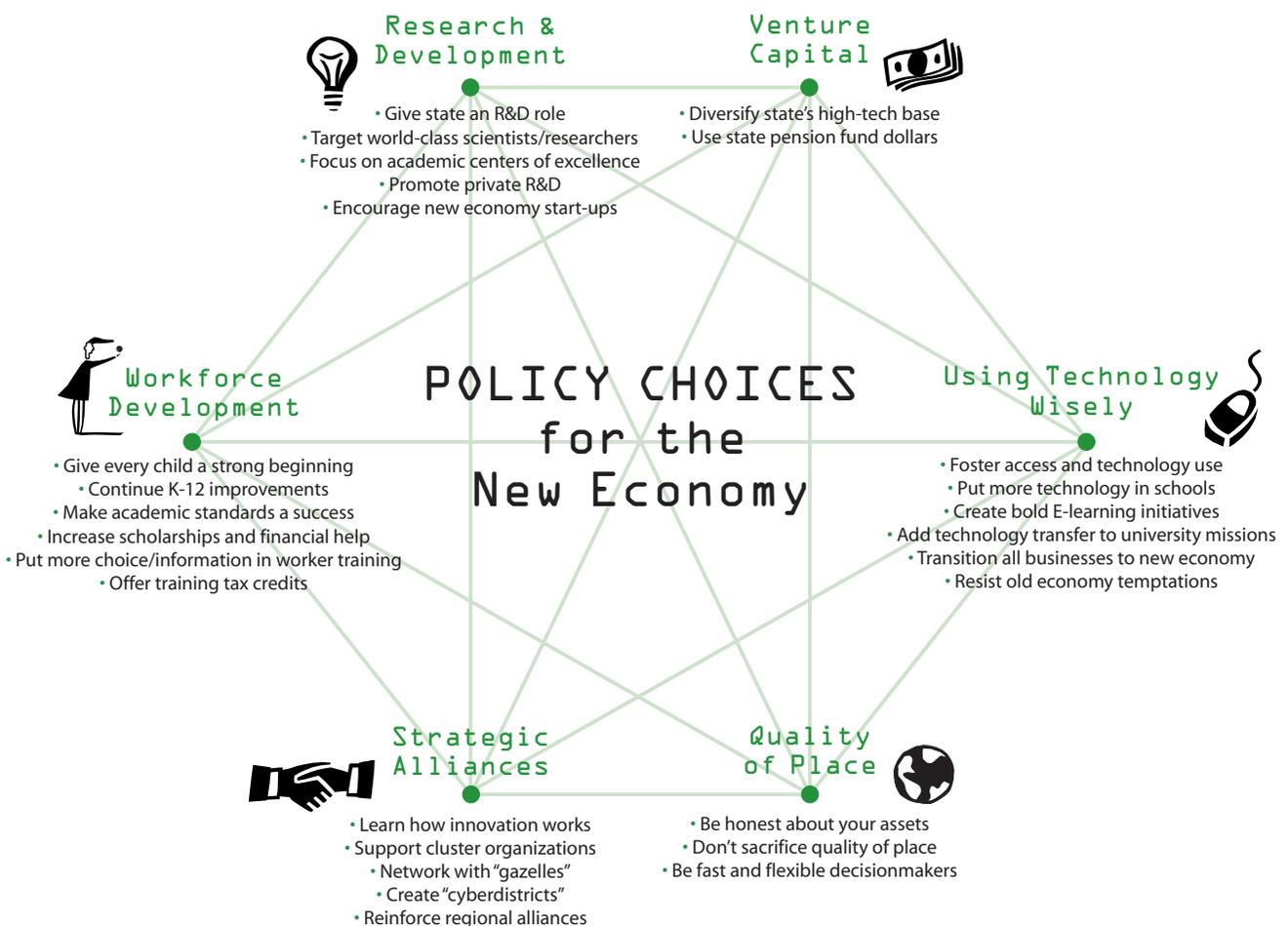
What Comes Next?

It is time to make some defining choices. When the Morrison Institute published *The New Economy: A Guide for Arizona*, we anticipated that, given the opportunity, the state’s residents would suggest some great choices for Arizona in the new economy. Since then, we have found that Arizonans understand the need to focus on people and places and to transition rapidly from the old economy to the new one.

Making the Right Policy Choices for the New Economy

On the following pages, we present your choices, along with some of ours, for further discussion and to form a basis for action by leaders and residents across the state. These policies fall into six categories:

- *Invest In New Ideas and Knowledge: Research & Development*
- *Venture Capital: Show Us the Money*
- *Workforce Development: Making the New Economy Work for Everyone*
- *Work Smarter: Using Technology Wisely*
- *Come Together: Strategic Alliances for a Competitive Advantage*
- *Place Matters: Investing In Quality of Place*



In the new economy,
"a potent concoction of
computers, a great idea,
a small team, a line to the
Web, a sprinkling of capital,
and a willingness to take a
leap of faith is enough to
rewrite the rules of an
entire industry."

Fast Company, September 1999



Invest in New Ideas and Knowledge: Research & Development

Research and development is at the core of the new economy growth process. Without new knowledge, we cannot create new products and services or foster entrepreneurship. In other words, we will be left out of the new economy. The Progressive Policy Institute's **New Economy Index** ranks Arizona 17th nationally in "capacity for innovation." But Arizona ranks 8th among the 10 Western states. Arizona has only two areas of high-tech strength, and it lags in the type and number of workers who are critical to new economy innovations.

To encourage innovation, Arizona must use its university system to promote research. Also, the state should support more R&D investments by private companies in Arizona. Here are the steps Arizona should take:

Give the state an active role in supporting R&D, especially through university research

Nearly all R&D dollars come from corporate (\$133 billion in 1997) or government investments (\$63 billion). But as Congress considers reducing federal R&D spending to keep the budget balanced, state support of basic and applied research has become a serious economic development tool. For example, Michigan has earmarked \$50 million in tobacco settlement funds for medical and health research, with the lion's share going to universities. The state will also invest \$1 billion over the next 20 years to create a "life sciences corridor." This effort will focus on making Michigan's research institutions national leaders in biotechnology applications and start-up companies. As part of the \$165 million New Jersey Jobs for the New Economy, Governor Christie Todd Whitman announced plans to promote economically viable high-tech research at the state's colleges and universities. The governor's proposal provides \$10 million in state matching funds for new federal science and technology research grants. In his 2000 State of the State address, California Governor Gray Davis proposed investing \$75 million annually in California Institutes for Science and Innovation at three University of California campuses. Governor Davis developed the initiative to combine world-class centers for strategic innovation with training for new science and technology leaders. Arizona will have to consider similar initiatives to gain a foothold in new high-tech arenas.

Target world-class scientists and academic researchers for Arizona's universities and institutions

Most of the great regional economic success stories of the 20th century didn't just happen. Many of them—including Silicon Valley—were built on a strong academic foundation. California in the 1960s and Texas in the 1980s stimulated a high-tech boom by attracting the best academic researchers. Today Georgia plans to recruit 85 new scientists and professors to its universities, committing millions of state dollars to the task. The "talent recruitment" package includes new university research facilities and enhanced base salaries. Arizona should consider a similar program to attract more world-class scientists and researchers. To do this, the state's universities will have to have first class facilities, advanced equipment, and attractive compensation packages.

Focus on centers of excellence at Arizona's universities

Research specialties in universities and related institutions have substantial "spill-over" effects on the state's economy. But it has been almost 15 years since Arizona's industry, university, and government leaders worked together to enhance the state's leadership in academic research. After losing two high-tech facilities to Texas in the early 1980s, Arizona's three universities focused on building specific areas of excellence. These public/private partnerships resulted in such top centers as ASU's Center for Solid State Electronics Research and the Services Marketing Center and the University of Arizona's optics and health centers. These efforts and others have helped to keep Arizona in the new economy race thus far. But, as the new economy continues to grow, we must reaffirm our commitment to sustained investment in existing and new centers of excellence so that Arizona will be world class in more fields. Whether the goal is to improve the treatment of heart disease or design the next generation of computers, Arizona universities should have the resources to lead the charge.

Promote more R&D among private companies

Arizona encourages R&D investments in several ways. A state R&D tax credit is available. Also, state dollars support Arizona companies when they apply for federal Small Business Innovation Research Awards. But Arizona could—and should—do more to encourage research in private facilities and promote the state as a good place for the R&D centers that are the "brains" of businesses. For example, Arizona should further support and promote its two university research parks in Tempe and Tucson as locations for more private research facilities and jobs.

Encourage and support new economy start-ups

Start-up businesses are the soul of the new economy. Thus, business incubators that help to turn R&D into new goods and services have become the focus of universities and economic development organizations in many states. New Jersey, for example, plans to open ten new incubators, doubling the current number of facilities around the state. Arizona has technology incubators affiliated with Arizona State University and the University of Arizona. These centers have promising records and could expand with more support from the universities, state agencies, and leading businesses.

Venture Capital: Show Us the Money

The new economy cannot grow without investment. “Venture capitalists” are investors who encourage the growth of promising companies in high-growth industries—especially such new economy areas as multimedia, telecommunications, and software. Without venture capital to turn ideas into new goods and services, no industry, regardless of its potential, can grow rapidly.

Though the actual investors are typically large institutions such as pension funds, insurance companies, and university endowments, the firms that decide on and manage the venture investments are typically located in regions with clusters of high-growth industries. Where the firms are located and where they invest tend to be the same area. Two good examples are Boston and Silicon Valley. This accounts partly for why Massachusetts firms secured 11 percent of U.S. venture capital in 1997 (\$1.2 billion), while Arizona captured less than 1 percent (\$122 million).

To attract more venture capital, Arizona must prove that it has the potential to become a major player in the new economy. To do so, Arizona must take two important steps:

Diversify the state’s high-tech base

Arizona is lagging in venture capital funds partly because it is strong in only a few new economy sectors. But fortunately Arizona’s share of software and Internet, financial services, and biotechnology is growing, and the optics cluster is developing rapidly. (See below.) The state should enhance and consolidate its gains in these areas, thus ensuring that venture capital

THE POWER OF COLLABORATION

The story of Arizona’s optics industry is a prime example of the power of developing an agenda for collaborative action. Ten years ago, few people even knew optics companies existed in any concentration in the state. Not surprisingly, there were few programs aimed at developing the optics industry and optics CEOs did not have a seat at many civic leadership “tables.” Today the story is different. Here is how it happened:

IDENTIFIED CRITICAL MASS

In 1990, Arizona companies—in fields as diverse as optical components; optical design software; lasers for medical, industrial, and graphics application; optical telescopes; and digital electronic camera systems—for the first time began thinking of themselves as an industry. They researched the size of their industry and discussed common problems. They involved other organizations that could help or hinder their industry’s development: universities, national laboratories, and financial institutions. Many began to believe firmly that, by contributing time to developing the state’s capacity to support optics companies, they could turn Arizona into an international center of excellence in optics technology, which would benefit them all. In 1992, the optics cluster companies (approximately 48 firms) incorporated as the Arizona Optics Industry Association, Inc. (AOIA).

NATIONAL RECOGNITION

Soon after, AOIA landed a cover story in *Business Week*, which dubbed Tucson “Optics Valley.”

JOINT VENTURES AMONG OPTICS FIRMS

In addition, over a three-year period, cluster companies bid together and successfully won a large contract that individually they could not have even bid on, worked jointly with the University of Arizona to create centers of excellence in optical manufacturing technology, put assistants in eight local schools to promote careers in science, and developed specialized curricula for community colleges.

PROGRAMS TO BUILD THE OPTICS INDUSTRY

The cluster, in partnership with the state’s major international service providers, has focused on building long-term export capacity for its member firms. The results are significant: millions in immediate sales, establishment of an annual industry show in Arizona that draws nearly 100 domestic and international firms, and a joint Arizona-Mexico university research agreement. More recently, the Arizona Department of Commerce awarded AOIA grants to work with K-12 institutions to develop school-to-work programs.

RETURNS TO INDUSTRY

Individual firms, the industry, and the state’s economy have benefitted from AOIA efforts. The markets for optics-related firms have generally grown through the cluster activities. One optics CEO, for example, calculates that his three years spent on cluster activities and networking, which cost his company \$50,000, have resulted in over \$700,000 in new business for a \$3 million company.

RETURNS TO ARIZONA

By 1999 the number of optics companies in Arizona had swelled to over 180 and is still growing. Moreover, a number of optics-related firms have chosen to relocate to Arizona as a result of the growing recognition of this industry in the state. Currently, 23 companies are considering “Optics Valley.”

firms will recognize and invest in Arizona’s new economy strengths. Action on the policy choices outlined in this document should move Arizona in that direction. However, interaction with the state’s emerging industry leaders to devise a specialized action agenda could jumpstart the broadening of Arizona’s high-tech base.

Use state programs already on the books

For some years, the Arizona State Retirement System has had the authority to invest up to one percent of its funds in venture capital projects, although it has not done so. Critics have claimed that such investments would be too risky and costly. But, most pension funds invest a small amount of money in venture capital pools. With leadership from the private sector, Oklahoma has created a program that leverages substantial venture capital at little or no cost to the state. Arizona’s retirement fund should learn from the experience of other states and leading private firms and begin investing in promising new economy areas in the state.

**Workforce Development:
Making the New Economy Work for Everyone**

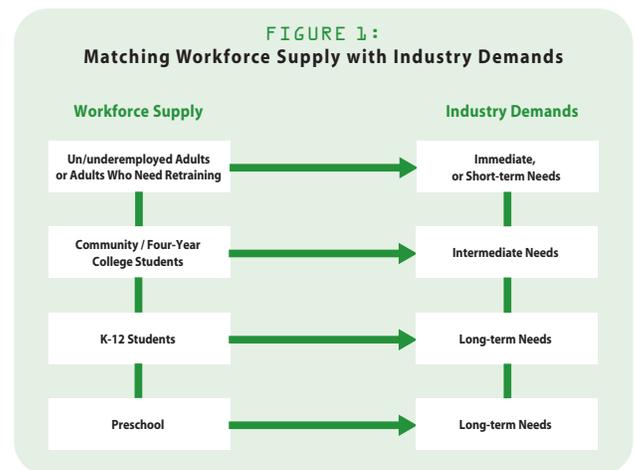
People are the most important raw material in the new economy. In fact, a pool of talented workers is fast becoming the most important competitive weapon in the new economy. The key difference among states and regions may soon be which one can deliver the people industry needs when and where they need them.

In theory, the workforce delivery system is in place, as shown in Figure 1. In practice, however, the workforce pipeline in Arizona and elsewhere has some serious shortcomings. For example, the 1970s baby “bust” has meant that fewer people are entering the job market. The education system is not producing enough graduates who are ready to work in the new economy. Companies focusing on downsizing have ignored employee training and development. On the other hand, mid-career workers do not seem to place a high priority on lifelong learning, even when they have been “restructured” out of a job. Many individuals are unprepared to be productive workers in part because their past choices and current lifestyles (*i.e.*, drugs, criminal activity, teen pregnancy) have put up significant barriers to employment.

Arizona must take steps to ensure that every worker can further the new economy, and that the new economy can “work” for every worker. Toward that end, these choices make sense.

Give every child a strong beginning

To be successful as an adult in the workplace—and especially in the new economy—an excellent early childhood education is a fundamental requirement. Unfortunately, Arizona has no coherent system to ensure that all young children have access to quality preschool. Georgia uses lottery funds to provide access to quality preschool for every four-year-old child. In 1998, Californians voted to increase the state’s cigarette tax by 50¢ per pack to fund early childhood health and education programs. Arizona should make similar commitments to make preschool and full-day kindergarten part of our education system.



Focus on more than school funding and choice

Arizona has made charter schools, Students FIRST, and the AIMS academic standards the cornerstones of school reform. These changes may help to improve training and education for our children. But it is clear that by themselves they will not solve all of our education problems. Issues such as class size, teacher pay, and school technology warrant attention. The emerging problem of teacher supply as age and poor working conditions drive many people out of the profession will also need to be considered. All of these issues are intertwined. In California, a highly publicized class size reduction program has stimulated interest in teaching among young workers and renewed interest among mid-career professionals who bring much life experience to the task.

Make academic standards a success

In grades K-12, students need to acquire the math, science, language, and technology skills they need to succeed in the new economy. Where kids fail to meet academic standards, Arizona should take action. Teacher training and tools should be strengthened, and struggling students should have access to help. Milwaukee, for example, provides tutors for young students not reading at second-grade level. Arizona should also focus on high quality after-school activities. Research shows that structured after-school activities and mentors are two answers to the question of “what works?” to reduce social problems and boost academic achievement.

Increase opportunities for college scholarships and financial help with training

A college education is a critical component in creating a workforce for the new economy. Economist Lester Thurow points out that while many Americans are behind their counterparts in other industrialized countries when they graduate from high school, they “close the gap” in college. Thus, students who complete college are more likely to get ahead; those who have only a high school education may be left behind.

Arizona must follow the lead of other states in using scholarships and internships to boost achievement and participation in post-secondary education. Georgia’s HOPE scholarships provide college financial aid for all of the state’s high school graduates who meet basic standards. Pennsylvania created the SciTech scholarship and GI Bill for the New Economy to increase the number of science and technology workers in the state. Arizona started to create the same type of program with ASPIRE, but failed to follow through with funds. Now it’s time to renew the state’s commitment to these ideas.

Put more choice, competition, and information into worker training

Unless companies have skilled workers and workers have the necessary skills, neither one can expect to prosper in the new economy. Unfortunately, Arizona’s numerous training programs are too often mismatched to both people’s and industries’ needs.

The challenge is not simply to provide better training, or to move people off welfare into jobs. The goal is to help all current and potential workers, regardless of where they are on the career ladder, as they seek to adapt to the new economy. Experts say that such an effective worker training system requires choice, competition, and information in the worker-training sector.

Companies and individuals should have enough information to make insightful decisions about training. “Report cards” should be used to track the performance of the system so that policymakers, business leaders, and workers have the same information and influence on services.

The new federal Workforce Investment Act, along with the expected end of the federally funded portion of the “school-to-work” program, gives Arizona the framework to build a training system tailored to the new economy. However, top policymakers and business leaders, especially those in technology industries, will have to be heavily involved in implementation if the training system leaders talk about is going to become a reality any time soon.

Offer training tax credits or accounts for workers and firms

Training related to work and focused on specific industries or technologies is usually the most beneficial. But frequently, companies fail to use training opportunities well. Government can encourage companies and individuals to invest more in training through such standard tools as tax credits, grants, loans, and other subsidies to companies and individuals. Fortunately, the lessons in this area can be readily learned from others. For example, the federal government is testing loan programs for qualified training expenses at a subsidized interest rate, with the repayment schedule tied to the borrower’s income level. Our state’s information technology industry has been building a case for an information technology training tax credit. Arizona needs to act on such creative ideas as these and move quickly to provide training incentives for everyone from the preschool teacher to the lab technician to physicist.

Work Smarter: Using Technology Wisely

Technology will continue to be a major driver of the new economy. As business guru Michael Porter has said, “Today there is no such thing as a low-tech industry. There are only low-tech companies. Any company in any industry can be more productive and more competitive by using technology well.” The same is true for a city, state, or region. Technology is not an end in itself. Rather, it is a tool to be used to move people and communities toward prosperity. How can we take advantage of technology’s potential and do so in a way that helps rich and poor alike to achieve their goals? Arizona must make policy choices that increase access to new economy technologies and make them affordable for everyone. In particular, the state must use technology to support education and workforce development at all stages. It can do so in the following ways.

Foster universal access to broadband telecommunications and encourage advanced services throughout Arizona

The lack of telecommunications capacity, especially to homes, is a barrier to progress in the information age. State action to remove obstacles to market-led investments in broadband infrastructure is vital. Public investments must be made to ensure that rural areas and inner cities are not required to overpay to connect to new infrastructure or are not left out altogether. There are many models for public investment. Virginia, for example, created Net.Work.Virginia to provide the entire state with high-capacity access that costs the same regardless of location. The Washington legislature recently appropriated \$54 million to create the largest educational network in the country, which will eventually connect all universities, colleges, schools, and libraries with one another, the Internet, and other telecommunications services. For Arizona, a fundamental overhaul of the Corporation Commission which, most agree, no longer fits today’s fast-paced technological age could be a key to progress.

Put more technology know-how in schools

Arizona brags that the state's public school technology standard is now one computer for every eight students. A few years ago that ratio would have won awards, but today it's no longer enough. Many states have a technology standard of one computer for every four students. But, teachers and students must know what to do with the machines. Technology should be integrated with curricula and teacher preparation, along with standards that specify what kids should know about and be able to do.

Set Arizona apart with a bold E-learning initiative

Experts suggest that E-learning (learning via the Internet and other technologies) will be "the next big thing" after E-commerce. Major high-tech companies are moving rapidly to participate in education and training in dramatically new ways. The best advice for traditional educational institutions is to get ready for a tidal wave of competition. For example, Hewlett-Packard has launched an initiative to "help e-workers and e-students enjoy e-classes taught by e-instructors in real time on the Internet." Microsoft has teamed with the Massachusetts Institute of Technology to create the "I-Campus" for "higher-tech higher education." Arizona needs to work quickly to be a leader in E-learning. The starting point should be our universities and community colleges. Arizona's E-learning initiative should seek to build a strong foundation for new economy industries by using a variety of technologies to deliver quality education quickly and directly to homes, workplaces, and schools.

Add technology transfer to university missions

Arizona's universities have a critical part to play in the new economy. These institutions should add technology transfer to their traditional goals of teaching, research, and service. Just last year, Arizona's High-Technology Industry Cluster and other technology clusters were successful in securing a change in the Arizona Board of Regents' tech transfer policy to make university-generated technology more available to businesses. The implementation of this policy should include incentives and flexibility for faculty members to become temporarily involved in a start-up company, or work part-time without negative effects on tenure or promotions. Economic development officials, the financial community, and state political leaders could foster university tech transfer strength through a "technology extension" program. Small companies could obtain technical assistance from faculty experts, and professors could collaborate with firms on research. Arizona's software and Internet industry (about 2,400 mostly small, new firms) has ranked this type of program as among its most critical needs.

Form "new economy transition" partnerships

Local and state economic development organizations and industry associations should reconsider their missions and reorient their technical assistance programs to help all businesses meet the challenges of the new economy. Greater Phoenix Economic Council (GPEC) is well underway with a redefinition of its mission and purpose. In addition, GPEC is using its web site to link communities, companies, media, and consultants in new ways. America Online's "Digital Opportunity Partnership" is another model for economic development organizations to follow. AOL is partnering with nonprofit organizations to provide technical assistance, training seminars, and establish "circuit riders" to promote access to digital technology and new economy adaptations.

Resist the temptation to protect the old economy

It would be natural for business and interest groups threatened by the Internet and new economy to try to use the power of government to protect themselves against economic changes. The first step is to avoid creating laws that will put a drag on the new economy.

Come Together: Strategic Alliances for a Competitive Advantage

Regions and communities cannot succeed in the new economy if “everybody goes their own way.” Alliances are necessary to stimulate economic growth and to ensure that this growth benefits the entire community. Indeed, collaboration and connectivity are the keys to the new economy. Collaborative Economics’ Doug Henton notes that “increasingly, the process of innovation is not conducted simply within an individual company but through knowledge-creating networks of individuals with ideas in companies, universities, and other institutions. The key is the sharing of knowledge over time through interactive processes based on trust, willingness to share, and mutually beneficial exchange.” Once new products are on the market, the Internet is enabling businesses to create “information partnerships” with their suppliers and customers. Together they find ways of improving operations and sharing the benefits.

All organizations—not just businesses—are kicking the old “go-it-alone habit.” City and state governments, educational institutions and community organizations must learn to collaborate generously to compete in the new economy. Places like Silicon Valley, Austin, and Chattanooga have recognized the power of collaboration and are finding ways to work across the boundaries of business, government, education, and community to enhance the region’s role in the global economy. Arizona’s communities must do the same.

Arizona and its communities can take five key steps to encourage the creation of strategic collaboration in the new economy:

Learn how businesses interact and innovation works

Arizona’s political and business leaders need to be as attuned to how innovation works as they are to real estate issues. High-tech analysts note that Arizona’s political culture is still dominated by real estate interests. Leaders in the top new economy regions have developed a deep understanding of the industries and dynamics shaping the new, networked economy and created insightful strategies for their economies. Arizona can get into this learning process with updated cluster studies like *The Changing Face of the Software Cluster in Arizona*. The last in-depth examination of Arizona’s key industry clusters was a decade ago when data were collected for the Arizona Strategic Plan for Economic Development. New cluster analyses would provide the information necessary to set goals in workforce development, university excellence, and many other new economy areas.

Support cluster organizations because of their dominance and strategic importance for networking

Arizona was one of the first states in the U.S. to focus on industry clusters—groups of competitive firms in related industries that are located close together and share needs for talent and technology—as the centerpiece of its economic development strategy. As part of its plan, the state encouraged the formation of cluster organizations as a way for firms to interact and learn from each other. These cluster groups have attracted similar businesses to Arizona. It is time for Arizona’s political and economic leaders to recognize the benefits these organizations are generating for the state and provide them with financial support.

Network with the “gazelles” and web-generation entrepreneurs

The new economy is driven by small, but fast-growing, companies known as “gazelles.” Arizona ranks third in employment by gazelles nationally, but these companies are rarely engaged in traditional economic development and leadership circles. The all-consuming lifestyle of entrepreneurs leaves little time to participate in boards or task forces or to consider lobbying. To promote better networking with this vital part of the new economy, universities, state agencies, and economic development boards should make a place at the table for new industries and the gazelle entrepreneurs. Better still, reinvent economic development networking by meeting in coffee houses, business incubators, or cyberspace at times more befitting their schedules.

Create “cyberdistricts” and vibrant community centers where housing, employment, and services are located together

As noted, the new economy is based on new ways that business operate and new ways that people work. Moreover, the “cleaner” nature of the new economy makes it possible to locate homes, workplaces, and recreational areas closer together. Arizona needs to challenge its real estate industry and city leaders to build vital centers and cyberdevelopments that promote interaction and creativity and are attractive to new economy workers and entrepreneurs. The city of Tempe has begun to talk with software and Internet companies about their needs, which include high-speed telecommunications service and flexible leases. They also need restaurants and services that support an around-the-clock work life.

Arizona has some of the most innovative developers in the world and a proven track record for revitalizing downtowns. Building the types of vital, mixed-use centers that new economy businesses value would surely result in projects to rival efforts already underway in San Francisco and Seattle. These two cities are aggressively converting downtown warehouses into software-friendly office locations. New Jersey is considering \$2 million in planning grants for municipalities interested in creating downtown “cyberdistricts,” or targeted areas where high-tech companies will be encouraged to locate.

Reinforce regional alliances to get more done

Nearly everyone that has studied what makes a region successful in the new economy concludes that its not just the ingredients that are important, but how they are put together. In other words, the important part is how a state and regions leverage public and private assets to achieve competitive advantage for their area and for the people located there. Many factors affect this ability, but a key one is a group of regional leaders who know how to turn scattered assets into something that is greater than the sum of its parts. To do this, a catalyst is usually required—a strong leader or a strong organization—to start and keep interaction going. Inclusion is critical, as are staff members to get things done.

In Arizona we have proven our ability to build productive partnerships in economic development such as the Greater Phoenix Economic Council, Greater Tucson Economic Council, and Governor’s Strategic Partnership for Economic Development. But in the years ahead, these regional organizations should direct their energies to an expanded set of challenges. They have to be more involved in taking care of the basics, creating the education, research, and financial

ingredients necessary for success. They have to be more conversant in what truly drives economic performance. They have to call attention to new economy people and companies and help them leverage public and private assets for commercial benefit. And as Greater Phoenix Economic Council has done, more organizations have to set the stage for communities, businesses, universities, civic groups, and government to work together to make sure Arizona has the right recipe for success in the new economy.

Place Matters: Investing in Quality of Place

The new economy is not dependent on proximity to markets or raw materials. But region and community actually matter *more*, not less. In a network-oriented economy, companies want to be in locations that provide a critical mass of competitors, suppliers, and customers; a strong talent pool; unique institutions; and a desirable quality of life. Knowing how to create competitive advantage out of these local factors is becoming strategically important for both companies and communities.

Part of this competitive advantage lies in business networks and part in personal preferences. It is much easier for companies to attract and keep top-notch talent in communities with a high quality of life. And the notion of “quality of life” is changing as well. As the Starbucks phenomenon reveals, most Americans have a renewed yearning for neighborhood-scale “places” where they can feel connected to their community.

No region or community can assume that its qualities will give it a permanent competitive advantage. Arizona has long been regarded as a desirable locale. Yet a recent survey suggests that nearly half of Maricopa County’s residents would leave if given the opportunity.

Arizona’s regions and communities seeking to maintain and improve place-based advantages should focus on the following three principles and be as fast and flexible as the new economy.

Be honest about your assets

Every region has assets and attributes that affect its economy, quality of life, and sense of community. Government controls some of these (public schools, for example), while others are driven primarily by the private sector (*i.e.*, the availability of business finance). Still others are the result of geography (*i.e.*, desert environment and warm weather).

Each region and community must be brutally honest in identifying their “core” assets. As stated above, smart workers, university-industry partnerships, and business networks are among the most important assets for any place today. Similarly, each region and community must understand what its strengths are in terms of quality of life—open space, clean air, safe neighborhoods, good transportation, or a suitable labor force. Arizona and its regions and communities can forge an effective new economy strategy only if they understand which place-based assets the new economy values, and which ones already exist locally.

Don’t sacrifice quality of place

Forget cheaper. The new economy rewards those who focus on quality. This principle is as true for regions and states as it is for businesses. Many states and regions throughout the U.S. have learned the hard lesson that competitive advantage based on low cost is a dead end. Locations in other parts of the world will always be cheaper.

As business analyst Joel Kotkin has pointed out, “Technology ‘haves’ choose quality locales.” In the long run, a quality workforce, strength in high-growth business sectors, and a sense of place will be far more important than cost. Indeed, those places that already rank among the top tier of the new economy find they must work harder than emerging regions to maintain their assets. Under Kotkin’s new hierarchy of places, Silicon Valley, Austin, and Denver have moved beyond whether they are good places to do business and worry mostly about whether they are good places to live.

Be fast and flexible decision makers

The new economy rewards speed, flexibility, and effective networking. Regions and communities must do the same. Policymakers who take years haggling over how to fix problems risk making their state or city powerless in the new economy. Higher education institutions that are slow to respond to industry needs risk becoming irrelevant, as industry looks elsewhere. To stay competitive, regions and communities must be flexible and prepared to adapt quickly to changing circumstances. They must also be ready to foster collaboration to solve problems.

Conclusion

Today, competitiveness requires a mix of strategies based on a new world view. The new economy is fast-paced and footloose, and it depends on different factors than the old one. Arizona and its communities can take advantage of the opportunities the new economy offers if the state’s leaders and residents revisit and revise our priorities and policies.

Action on the New Economy

Morrison Institute for Public Policy's Board of Advisors wisely selected the topic of the new economy for the third edition of **Arizona Policy Choices**. The following people and institutions have also moved quickly to lead the debate about the new economy and to address the issues it raises. Their foresight and aggressive action will serve Arizona well.

- *Governor Jane Hull appointed the Arizona Partnership for the New Economy in December 1999. This high-level, statewide group will recommend a new economy agenda for Arizona. Their report is expected in October 2000.*
- *Greater Phoenix Economic Council, under the leadership of CEO Rick Weddle and Board Chairman Mike Welborn, has hosted a dozen high-level, high-visibility sessions on the new economy and has adopted the new economy as part of its mission. GPEC has also reoriented its web site to connect companies, communities, and media, and consultants. GPEC has sponsored the New Economy Summit, planning retreats, and regional roundtables and produced a short video on the new economy that is being distributed to policymakers and community groups throughout Maricopa County.*
- *Greater Phoenix Leadership has advocated for the Arizona Partnership for the New Economy and a companion group, the Governor's Task Force on Higher Education.*
- *From front page and editorial coverage to discussions with local experts, **The Arizona Republic**, **Arizona Daily Star**, and **The Business Journal** have publicized **The New Economy: A Guide for Arizona** extensively and have continued to encourage action on the issues.*

The following organizations have engaged their members in learning and talking about the new economy since the publication of **The New Economy: A Guide for Arizona**.

- *Arizona Planning Association*
- *Arizona Department of Economic Security*
- *Arizona High-Technology Industry Cluster*
- *Arizona State University Research Park Board of Directors*
- *Arizona School Services Through Educational Technology*
- *ASU President's Breakfast Series*
- *Chandler Futures Forum*
- *Governor's Task Force on Higher Education*
- *Governor's Small Business Advisory Council*
- *Greater Phoenix Black Chamber of Commerce*
- *Greater Phoenix Chamber of Commerce*
- *Maricopa County Community College District*
- *Mesa City Council*
- *Mesa Leadership Development*
- *Scottsdale Chamber of Commerce*
- *Scottsdale Partnership*
- *Valley Citizens League*
- *Western Governors' Association*
- *Yavapai Community College Annual Employee Development Day*



The New Economy: Policy Choices for Arizona

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Morrison Institute for Public Policy conducts research which informs, advises, and assists Arizonans. A part of the School of Public Affairs (College of Public Programs) at Arizona State University, the Institute is a bridge between the university and the community. Through a variety of publications and forums, Morrison Institute shares research results with and provides services to public officials, private sector leaders, and community members who shape public policy. A nonpartisan advisory board of leading Arizona business people, scholars, public officials, and public policy experts assists Morrison Institute with its work. Morrison Institute was established in 1981 through a grant from Marvin and June Morrison of Gilbert, Arizona and is supported by private and public funds and contract research.

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