

TRENDS AFFECTING THE COMMONWEALTH

Identified
from the
LRC Scanning Program
August, 1992 - July, 1993

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FOREWORD

This publication is part of a continuing effort to provide legislators with information that will assist them in their decision-making by taking a broad and long-term look at issues. This publication highlights indicators of where current policies are leading and focuses on trends that could have a significant impact on the Commonwealth.

This report is based on the work of over 30 LRC staff members, who comprise the LRC issues scanning team. During the process of selecting articles for the monthly *Kentucky Horizons* newsletter, they identify major trends that seem to emerge from individual scans or groups of scans. This publication surveys their work from August, 1992, through July, 1993, identifying major trends.

This report was prepared by Peggy Hyland, Jim Eddleman, Linda Kubala, Bill VanArsdall and Jeanie Smith. Charlie Bush edited the report. It was revised on the basis of comments from members of the scanning team, as well as Committee Staff Administrators of the interim joint committees.

This report is not meant to be authoritative or comprehensive. It is meant to be a starting point for further discussion on these issues of long-term significance for the Commonwealth.

Vic Hellard, Jr.
Director

The Capitol
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INTRODUCTION

In April, 1988, an Issue Development Program was initiated at the Legislative Research Commission. The purpose of the program is to provide legislators with information on the potential long-term impact of various public policies on the Commonwealth and to anticipate issues or trends that are likely to have a significant impact on the state.

As part of the program, an internal "scanning" operation was initiated in August of 1988, to alert legislators to emerging issues that are likely to need attention. Scanning is a technique that has been used in the private sector for some time in strategic planning efforts. Scanning is the process of reading a wide variety of publications on a regular basis over a period of time, in order to identify issues early in their cycles, before they become "front page" problems. Early identification of such matters can provide the legislature time to prepare the Commonwealth to take advantage of opportunities and to ward off problems before they become crises.

Over thirty LRC staff members have agreed to be readers or "scanners." As they go about their normal reading, they flag articles that appear to indicate a new idea, an emerging issue, a shift in trends, a technological advance, or a novel approach to a problem. They complete a brief form that requires a summary of the relevant parts of the article and a short analysis of what the implications are for Kentucky. Generally, 12 to 20 "scans" are generated monthly. Once a month scanners meet to review these scans and to select those that appear to have the most significance for Kentucky and to relate to issues the General Assembly is likely to face. The scans that best represent the priority trends and issues are summarized in a monthly newsletter, called *Kentucky Horizons*, that goes to about 1,000 persons and organizations, including legislators, executive agencies, universities and colleges, business and civic groups, and the press.

The following report takes the priority trends and issues identified in the various scanning meetings held from August, 1992, through July, 1993, and consolidates them into trends that are either occurring in the state or are likely to have a significant impact on the state. The trends are not distinct. They interrelate and in some cases overlap. But, in general, the major trends identified and discussed during the fifth year of operation of the scanning program are presented here. Background under each trend is derived from information contained in the individual scan (article) relating to this major trend. The implications presented are not meant to be exhaustive, but only a starting point to generate further discussion of what these trends mean for the Commonwealth and what policy options might be pursued to address, enhance, or mitigate these trends.

The trends are not listed in any order of priority. A helpful table in the front of the publication lists trends under appropriate legislative committees. Some trends are listed under more than one committee. Also, the legislative committee or committees with jurisdiction are listed in the upper right hand corner of the page in which each individual trend is discussed.

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Drinking Water: Affordability and Quality

Trend: **Concern is growing about drinking water quality and affordability. The price of water is going up for individuals; the cost of complying with the Clean Water Act is going up for communities; questions are being raised about the quality of drinking water.**

Background: According to the National Utility Service, a consulting firm headquartered in Park Ridge, New Jersey, water prices in the United States increased an average of 15.6 percent over the past year. The U.S. was second only to Italy in terms of percentage increase in the price of water; in Italy it rose 19.2 percent. Domestic water prices are expected to increase at over three times the rate of inflation. Last July water prices in the U.S. ranged from \$0.84 per thousand gallons in Chicago to \$2.16 in Houston, Texas.

Seattle, Los Angeles, and Philadelphia have begun to address the burdensome impact of high water and sewer rates on low-income families and landlords. Since 1976, Seattle has discounted water and sewer rates by 50 percent for elderly whose family income is below 70 percent of the state median. Since 1989, Seattle has had a similar program for low-income families below the retirement age. In Seattle's programs both property owners and renters receive the discounts. Discounts for renters whose water and sewer bills are paid by landlords are effected through discounts on electric bills.

Since 1975, Los Angeles has given a 50 percent discount to low-income (\$17,000 per year or less) elderly rate-payers. Los Angeles is considering a discount for the non-elderly that will be less: \$5 per month for a family of two and up to \$10 per month for a family of eight.

The programs in Seattle and Los Angeles are made possible by the fact that power, water, and sewer billings are made by closely related municipal agencies. That is not the case in Philadelphia. The Philadelphia Water Revenue Board uses every resource possible to find grant money for families with incomes below \$17,000 per year, elderly, and non-elderly alike. Grants are available from local, state and federal agencies, but only available to property owners.

The National Consumer Law Center recommends a program similar to food stamps or the Low Income Home Energy Assistance Program of the federal government. Under such a national program any family with an income 150 percent of the federal poverty line would be given a subsidy with which to pay water and sewer bills.

Drinking Water Standards issued by the Environmental Protection Agency recently rose to eighty-four. Nationwide, the standards require 80,000 public drinking water systems to meet criteria and monitor for contaminants. For three years EPA has been working to identify low-cost solutions to compliance. Three of these solutions are consolidation of water systems, pooling several systems' water samples, and low-cost treatment technologies.

West Virginia University has expanded its National Drinking Water Clearing House Program to help small communities and the people who work with them. They will provide free information about the Safe Drinking Water Act Amendments, utility management, and technical, financial and health-related topics.

Several bills have been introduced in Congress to reauthorize the Safe Drinking Water Act. Revolving loan funds have been proposed as a means of providing for financial assistance to state and local governments. The original Act did not provide such assistance. The federal government has a revolving loan fund program for wastewater facilities. In Kentucky, it is called the Kentucky Infrastructure Authority (KIA) Fund A. Another KIA fund that is state funded, Fund B, is tied to both economic development and jobs. As money is paid back to the KIA, Fund B, the payback can be used for anything tied to both economic development and jobs, including safe drinking water facilities.

Implementation of drinking water standards is at best uneven. Sanitary surveys designed to ensure the safety of public water systems are inadequate, says a recent report by the federal General Accounting Office. Forty-five states omit one or more key survey elements, such as inspection of the water distribution system or review of water system operators' qualifications. Some states do not require documentation to back up inspections and survey results, and surveyors sometimes interpret results inconsistently. Problems were found to be especially severe in small cities. State funding was said to be inadequate to support the necessary programs.

Implications

- ✓ Kentucky communities will face the problem of paying for public water systems and may turn to the state for assistance.
- ✓ As the price of water rises, there will be increased demand for assistance in paying water bills for the needy.
- ✓ Questions about water quality may lead to additional demands on the Division of Water and local health departments.
- ✓ The cost of compliance in other environmental areas may aggravate the situation even more for local governments.
- ✓ Water conservation may emerge as one solution to the problem.
- ✓ Mechanisms to encourage conservation are likely to emerge. For example, the cost per unit of water used could be based on a schedule in which the per unit cost increases as usage goes above a certain basic level. This approach would also encourage better infrastructure maintenance in order to stop leaks.
- ✓ Some avenues of state assistance may be limited, since Kentucky's Public Service Commission does not regulate rates for municipal water companies.

Integrating Environment and Economic Development

Trend: There are a growing number of approaches for integrating economic progress and environmental concerns.

Background: Many new approaches are being tried to help address the need to balance and integrate economic and environmental concerns. The 1992 World Development Report, by the World Bank, focuses on the need to integrate environmental considerations into development policymaking. "The value of the environment has been underestimated for too long, resulting in damage to human health, reduced productivity, and the undermining of future development prospects." The report argues that continued, and even accelerated, economic and human development is sustainable and can be consistent with improving environmental conditions, but that this will require major policy, program, and institutional shifts. The report endorses a two-fold strategy : (1) aggressively exploiting positive "win-win" links between efficient income growth and the environment (e.g., by removing policies that encourage overuse of natural resources, expanded emphasis on population programs, better agricultural extension, and more local participation in development programs); (2) instituting strong policies to encourage corporations, governments, households, and farmers to adopt less damaging forms of behavior. The report indicates that costs of protecting and improving the environment may require higher investment rates in Less-Developed Countries (LCDs) by 2-3 percent of Gross Domestic Product (GDP) by 2000, but concludes that these costs are modest in comparison with their benefits and with the potential gains from economic growth.

A discussion of some new approaches for merging environmental goals with economic development follows.

Resource economics. Resource economics - figuring dollar values for wildlife, scenic views, and other natural resources - is a developing economic field that is growing rapidly and is becoming more mainstream. Resource economics combines classical economic theory with natural science, psychology, and market research. The most widely publicized use of resource economics was done in a study for Yellowstone National Park and released in 1992. The study focused on the value of bringing the gray wolf back to the park. As would be expected, the study included the economic effects of lost livestock and the loss of hunting big-game animals killed by wolves. But the study also included the effect of how much longer visitors said they would stay, or how much more often they would go to Yellowstone if they could hear the howls of wolves. The study concluded that there would be an \$18 million net benefit to the local economy in the first year. Resource economics has been used in such efforts as assessing damages from chemical spills, weighing the pros and cons of building artificial reefs, and allotting more pasture to deer and cattle.

Incentives. Environmentalists and the National Park Service have been pushing for natural repopulation of wolves in the West. Ranchers, however, are opposed to such efforts. One environmental group may have found a way to accomplish the goal, with the help of ranchers. The

group, Defenders of Wildlife, is offering to pay any private landowner \$5000 if the landowner can show that a litter of wolf pups was successfully reared on the landowner's property. The U.S. Fish and Wildlife Service will help with verification. This is a new approach for Defenders of Wildlife, who in 1991 sued the federal government to speed up wolf reintroduction in Yellowstone. In this case the environmental group is paying those who supply what it wants -- wolf habitat.

Pollution Trading Allowances. The Clean Air Act, enacted in 1992, set up the first large-scale system for trading pollution allowances. A recent General Accounting Office report concludes that economic and environmental benefit would result from water pollution allowance trading. However, the report suggests that specific statutory authority is needed and changes in EPA regulations and enforcement capabilities are needed. Nine hundred and fifty water bodies have been identified as having trade potential.

Recycled Product Commodity Exchange. There has been discussion of a commodities exchange for recycled products. The Chicago Board of Trade has shown interest in operating a commodities exchange for recyclable products, in much the same way as it does now for other commodities. Trade officials are meeting with members of the recycling industry and the public sector to determine interest and needs. The first step in such an endeavor would be to create a cash market, bringing buyers and sellers together. A future market for recyclable products might even be created. Such a market would mean standardization of contracts and stable prices.

Waste-to-Energy. Ethanol is usually made from such plants as corn or sugar beets, but this is expensive and wastes food. Two U.S. corporations, in a joint effort, are planning to build the first U.S. plant that produces ethanol from paper mill sludge and pulp. The \$20 million plant, in Moreau, New York, will use bioengineered bacteria to process the waste by fermentation. Instead of paying to haul their sludge to landfills, nearby mills have agreed to pay the facility to take it, and since the plant won't have to buy its feed-stock, the 10 million gallons of fuel it produces annually will be cheaper than ethanol made by other methods. Over the next five years, the company intends to build additional plants and increase production to more than 100 million gallons of ethanol each year.

Green Corridors. The campaign to save biodiversity is just beginning to use a wider assortment of techniques and tactics. Economic progress has in some cases meant loss of habitat. New emphasis is being placed on the value of wildlife corridors, and partnerships are developing between government and business to preserve them. Wildlife corridors are reserved for plant and animal communities - either to expand ranges and facilitate migrations or encompass shifting habitats under conditions of rapid environmental change, such as global warming. Wildlife corridors can be used to link together remaining wetlands and wildlife reserves, new restorations and nature development areas. Green corridors and associated buffer zones can be linked to form an extensive system of linear greenways to create a biological infrastructure for an entire region or country. When two or more fragments are linked, the whole is greater than the sum of its parts. Railroad and highway corridors may be used and may have biological as well as recreational values.

Implications

- ✓ States that take action to assist the private sector in responding to environmental concerns may improve their own economic development.
- ✓ Research activities in valuing resources are likely to increase and influence environmental and economic policymaking.
- ✓ The sustainability of some enterprises may become questionable as external environmental concerns are internalized. States may want to target economic development incentives toward industries with a clear future, or help existing industries adjust.
- ✓ When such unexpected sources as monetary agencies (like the World Bank) acknowledge that the value of the environment has been underestimated, resulting in damage to human health, reduced productivity, and the undermining of future development, the trend has become mainstream and more activity in this area from other sources is likely.
- ✓ Policies intended to promote environmentally sound economic development may need to be carefully constructed and monitored to be sure they have the desired effect.

Sustainability and Equity

Trend: Sustainability and equity are key words in defining future economic-environmental relationships.

Background: In November, 1992, a statement was signed by over 1500 scientists from 69 countries, including 99 Nobel Laureates, that voiced the concern that "human beings and the natural world are on a collision course." In January, 1993, the National Commission on the Environment, convened by the World Wildlife Fund, found that the natural processes supporting life are increasingly at risk. It found that if the status quo is maintained, environmental quality will continue to deteriorate and eventually the economy along with it. Both groups set out strategies that they think will lead to a sustainable and harmonious relationship between nature and the human species.

In June, 1992, the U.N. sponsored a conference on Environment and Development in Rio de Janeiro that became known as the Earth Summit. More heads of state attended the Earth Summit than any other meeting in history. There were 179 nations represented. *Agenda 21*, a document that set forth guiding principles and strategies for global sustainable development, was adopted. In May, 1993, Kentucky sponsored a national follow-up conference to the Earth Summit to examine state strategies for sustainable development.

KRS 154.01-020(1), adopted in 1992, sets out the mission of Kentucky's economic development system "to achieve the best quality of life for all Kentuckians through long-term strategic planning and implementation that fosters *sustainable* growth in jobs and incomes..." The Economic Development Partnership Board in its strategic planning process set as its mission "to create more opportunities for all Kentuckians by building an expanding *sustainable* economy." (emphasis added.)

Along with the concern for sustainability is a growing concern for environmental equity.

In August of 1992, a U.S. EPA report found that minority and low-income populations bear a disproportionate share of exposure to environmental hazards. The study states that there are "clear differences between racial groups in terms of disease and death rates" associated with exposure to environmental hazards. In June, 1993, the head of the NAACP expressed a need to address these inequities. An Office of Environmental Equity was established in the U.S. EPA during the last administration. The new administration has announced its support for environmental justice. Several states have considered legislation to require state environmental agencies to consider issues of environmental justice in their regulatory action.

Implications

- ✓ More and more legislation may be evaluated in light of its long-term impact and its sustainability. This will demand that a longer perspective be incorporated into decision-making.
- ✓ Increasing demands may be placed on the Kentucky Long Term Policy Research Center to provide a longer range focus.
- ✓ New mechanisms may be needed to provide for cabinets and legislative committees to collaborate and cross jurisdictional lines to determine a sustainable path.
- ✓ Research will be needed to provide data on which to make decisions.
- ✓ States and cities may face increased pressures to clean up pollution in poor neighborhoods and ensure that these communities have more of a say in future industrial development.

Farm Policy

Trend: Basic assumptions on which farm policy is made are being questioned. The prognosis for small farmers is not good.

Background: In a book published in 1992, *Sacred Cows and Hot Potatoes*, the authors (including two UK professors) give some advice to agrarian policymakers. They believe that current farm policy is based on some misconceptions. As summarized in *Future Survey*, their cautions are: never assume that agrarian values are simple; never confuse farming with rural America; never base decisions on the "average" family farm (due to difference in size, regions, use of inputs, and operators); never confuse production with productivity; never confuse farm prices with farmer's income; never forget that US agriculture depends on the world economy; never equate good farming with a healthy environment (farmers seldom realize when agriculture causes damage); never assume that farm programs are food programs (their primary goal is to support farm income); and never assume that a government program will do what it says. The authors provide some concluding guidelines for reform: (1) rural development can be farm policy if it broadens opportunities for small-scale farmers; (2) government benefits must be directed to particular classes of farms if they are to achieve any meaningful goals; (3) linking farm program benefits to production inflates land prices, encourages environmental damage, and makes U.S. agriculture less competitive in world markets; (4) an uncertain macroeconomic environment cannot be addressed through specific agricultural policies; (5) food programs should serve the poor and hungry, and not be determined on the basis of farm program goals.

In addition, there are some "megatrends," identified by another UK professor, that are likely to make the survival of small farms even more of a struggle, including the sale of farmland, as an aging population of farmers nears retirement; competition from eastern Europe and other global markets; biotechnology that may require large investments and result in lower prices; and the growing demand to minimize the negative environmental impacts of farming.

There have been two recent major efforts to study Kentucky's agricultural future. The University of Kentucky College of Agriculture, the Kentucky Farm Bureau, the Kentucky Department of Agriculture, the Kentucky Agriculture Resource Development Authority and all major commodity groups have worked together on an initiative called Ag Project 2000. They have developed specific action plans to increase agricultural receipts from the current \$3.1 billion to \$5 billion by the end of the century. The Governor's Agricultural Policy Task Force has developed recommendations to, among other things, maintain the traditional "family farms."

Implications

- ✓ The structure of farming will undergo change as major change agents favor industrial size farms.
- ✓ Agricultural policy at all levels operates with some misconceptions that can render the effectiveness of policies invalid and even detrimental to their original purpose.
- ✓ It may be timely to pursue the question of whether loss of small farms is a state public policy concern.
- ✓ If loss of small farms is a public policy concern, legislation needs to avoid treating all farms the same and target legislation to assist the small farmer.

Clean Coal

Trend: Efforts continue to develop clean coal technologies, but waste from these technologies is becoming a concern as well.

Background: Over the next year, the Tennessee Valley Authority (TVA) will test an experimental process, called gas suspension absorption, to clean high-sulfur coal emissions of electric power generating plants. The "apparent advantages" of the new process include lower construction and operating costs, since it is less complicated than current emissions scrubbers and also is more efficient. It has the potential to remove air toxins and it removes virtually all plume-causing components from the emissions. Unlike current scrubbing equipment, it produces no waste water streams or wet byproducts that must be further treated. The year-long test will be conducted at TVA's Shawnee Fossil Fuel Plant near Paducah, Kentucky, which has been renamed the National Center for Emissions Research. TVA will conduct additional cooperative research projects at the Paducah test facility.

Researchers at the U.S. Department of Energy's (DOE) Oak Ridge Laboratory, in conjunction with Martin Marietta, have developed a process to liquefy coal using enzymes. The enzymes are used as biocatalysts for coal conversion. In comparison to other coal liquefaction methods, this process is accomplished at relatively mild temperatures and pressures and, consequently, is cleaner.

The US. Department of Energy predicts that use of a pressurized fluidized bed combustion system to remove or prevent the formation of pollutants will become commonplace in the utilities industry. The system was tested in Ohio, where over 90 percent of sulfur was captured during the burning of high sulfur coal.

The Clean Air Act Amendments of 1990 and other environmental laws have increased significantly the number of scrubber installations for removing sulfur dioxide emissions from coal-fired facilities. A report recently issued by the Industrial Information Service says that as scrubber installations have increased, concern about the waste produced by these scrubbers has also increased. A typical scrubber creates about 358 tons of waste per MW scrubbed. Although some of the waste from scrubbers is sold as byproducts, such as gypsum, most is landfilled. The report notes that by the year 2000, scrubber waste generation in the Southwest region will be exceeded by scrubber waste generation in the South Atlantic, Mid-Atlantic, and Midwest regions.

Kentucky will have several new scrubbers. The Center for Applied Energy recently did a study on waste disposal of coal combustion byproducts, including scrubber waste as well as fly and bottom ash, and found that some Kentucky utilities have little on-site disposal capacity at their power facilities. Once they are forced to go off-site for disposal, it is likely that public concerns will surface. About a year and a half ago, because of public opposition, Owensboro

Municipal Power decided to discontinue its efforts to obtain a permit for a landfill solely for disposal of combustion waste.

The Natural Resources and Environmental Protection Cabinet has in process an administrative regulation to establish a permit program to regulate the disposal of coal combustion waste at coal mine sites.

Implications

- ✓ The market for coal will be impacted by the success of Clean Coal technology.
- ✓ The problem of waste from scrubbers could hurt the market for high-sulfur coal; Kentucky could have a problem with scrubber waste disposal.
- ✓ Utility contracts for Kentucky coal may be increasingly tied to producers' ability to take back and dispose of coal combustion waste.

Taxes and the Economy

Trend: Tax laws - as distinguished from tax rates - are having a serious effect on the economy, leading some to call for tax reform.

Background: The complexity of federal and state tax laws results in a huge drag on the U.S. economy, a Centre College economist argued in a recent *Courier-Journal* article. Tax compliance costs for all American businesses now total about \$100 billion a year, Bruce K. Johnson said. Individual taxpayers used about \$30 billion worth of their own time in preparing returns.

Safety and environmental regulations confer benefits along with their cost, but complex tax regulations do nothing but waste vast amounts of time and money that could be put to productive use, he argued. He pointed out that other advanced nations generally have higher taxes than the U.S., but they have much simpler rules and change them less often. Production and services costs in those countries are not raised by the necessity for corporations to hire large numbers of full-time employees just to handle tax paperwork.

States are always looking for new sources of revenue, but fears of harming the economy are discouraging them from enacting big increases in income taxes. Instead, some states are looking at a tax on services as a way to duplicate their success with sales taxes. A recent bulletin from the National Conference of State Legislatures says that sales taxes tend to be regressive--to take a larger share of low incomes than of high incomes--and that extending the tax to services may reduce the regressivity. The bulletin, however, noted that this depends on the choice of services to be taxed. The proper question may be not whether to tax services, but which services to tax.

Only three states--Hawaii, New Mexico, and South Dakota--have extended their sales tax to almost all services, including accounting, legal, and medical services. Most states still tax only a few services, if they tax any at all.

Implications:

- ✓ According to Bruce K. Johnson, cutting tax compliance costs at least in half would provide a far greater stimulus to the economy than federal jobs legislation. It would also create more employment.
- ✓ There are a number of technical difficulties in extending sales taxes to business services, as the NCSL bulletin points out. For one thing, businesses that can supply a taxed service "in house" might acquire a competitive advantage over other companies.
- ✓ Sales taxes on business services are likely to be passed on to consumers.
- ✓ Simplicity is one of the main arguments used by proponents of keeping the Kentucky and U.S. income tax codes compatible. We may see efforts to reconsider this issue.

Financial Institutions and Their Regulation

Trend: Banking is changing quickly, demanding corresponding changes in regulatory policy.

Background: The U.S. banking industry will continue to consolidate, says a New York University professor of management whose new book on the subject is quoted in *Future Survey*.

David Rogers predicts that the number of U.S. banks will shrink from 12,000 in the mid-90s to fewer than 8,000 by the year 2000. Employment in commercial banks will shrink from 2.3 million to 1.5 million, with severe impacts on the largest cities. But he says the remaining banks will be much better capitalized than those of today, while banks will pursue "more internal collaboration and synergies across business and product groups." New types of specialized banks will emerge, and effective merging will become a primary banking concern.

One of his predictions is that regulators will crack down on unsafe banking practices. Swift responses to changes in the industry will be necessary if situations similar to the savings and loan debacle are to be avoided. Two economists writing in the *Southern Economic Journal* claim that unwise policies pursued over a long period led to the massive collapse of S&Ls and the consequent heavy cost to taxpayers.

The final blow, they say, was the sudden deregulation of the financial services industry in the 1980s. But the groundwork was laid by long periods of prior regulation that protected S&Ls while inhibiting their evolution, and by changes in economic conditions without corresponding changes in regulatory policy.

In 1988 there were 250 state-chartered banks in Kentucky; that number has declined to 224 in 1993.

Implications:

- ✓ The rapid changes in the banking industry may divide banking into several tiers. David Rogers says that four types of banks are emerging: low-cost/high-volume providers of consumer banking services, middle-market banks that serve midsize corporations, small banks that provide quality service, and global merchant banks.
- ✓ Bank survival may not be possible without merging.
- ✓ The lesson of the S&Ls may be instructive to governments as they consider regulating various other markets, such as agriculture and health care.
- ✓ Regulatory policies that may be advantageous under one set of economic conditions may be disastrous under different conditions. Therefore, regulatory structures should be updated as changes occur.

Gambling

Trend: **Addiction to gambling is a problem that is growing as gambling opportunities increase.**

Background: The issue of gambling has mushroomed in the states. One aspect of the issue that is emerging as gambling opportunities increase is gambling addiction. Gambling promises to be the addiction of the 90s, as illegal drugs have been during the last two decades, says a writer in *The Utne Reader*. According to *LaFleur's 1991 North American Gambling Abstract*, in 1991, \$138 billion circulated through gambling activity, including casino gambling, lotteries, horse racing, and charitable gaming. Thirty-four states and the District of Columbia now sponsor lotteries. Twelve states have legal casinos. Gambling on Indian lands continues to grow. The largest gambling center between Nevada and Atlantic City is Minnesota, where 14 casinos are operated on Ojibway and Dakota lands.

The side effects of gambling were said to be getting more and more apparent. The article quoted studies showing that gambling is significantly higher among the poor. A survey in Chicago showed lottery purchases averaged \$76 in affluent neighborhoods and \$221 in poor ones.

The director of the Compulsive Gambling Center in Baltimore states that gambling already is costing as much in financial terms as the drug epidemic. Some states, such as Iowa, Texas, Wisconsin, and Minnesota, allocate funds for treatment of problem gamblers. But the amount spent on treatment in no way compares with the money spent for running and promoting the gambling industry.

Implications:

- ✓ There may be increased demands on states that permit gambling to spend money on treatment of compulsive gambling.
- ✓ The role of state and local government in authorizing, permitting and regulating gambling may come under scrutiny.

Municipal Bonds

Trend: **The issuance of municipal bonds is receiving increased scrutiny.**

Background: Municipal bonds are attractive to investors because they are exempt from federal income tax, and in some cases, state and local taxes as well. They represent one of the few remaining tax shelters for the individual. According to an article in *Newsweek*, "The amount of debt issued by municipalities has increased seven-fold since 1970, up to \$272.7 billion in 1992. Total debt outstanding is now over \$1 trillion". This rise is due primarily to inflationary changes in the value of the dollar. Debt outstanding as a percent of revenues has actually fallen from 110% in 1970 to 104% in 1988, and even more dramatically to 83% in 1990. Nevertheless, fiscal pressures on local governments from the recession and the increases in the use of complex financial instruments have caused the ratings of municipal bonds to come under increased scrutiny. Political and budget implications follow. Poor ratings may increase budget pressures through increased costs, leading to public debates over cost cutting or revenue generating measures. According to the article, lower bond ratings aren't just a blow to civic pride. They mean investors aren't as likely to buy such bonds, which makes it more expensive to borrow money. That, in turn, leads to budget cutbacks.

Implications:

- ✓ With revenue shortfalls at the local level, the use of municipal bonds could increase.
- ✓ The financial rating of communities, as well as state government, in Kentucky could fall if the projects for which the bonds are issued are not economically sound.
- ✓ Questions may be raised about the reporting and oversight of the issuance of municipal bonds and the local debt they entail.

Urbanization

Trend: As urban populations burgeon, problems relating to housing and crime are growing.

Background: Three out of every four Americans presently live in cities. Many urban environments are deteriorating. Residents are experiencing a diminishing quality of life and local officials are struggling to meet even the most basic needs of their communities. The urbanization phenomenon is a worldwide trend. By the end of this decade it is predicted that for the first time in history, more people will live in and around cities than in rural areas.

Crime is a serious problem in urban areas, so much so that private neighborhoods are now being walled to keep unwanted people out. An estimated 300,000 Californians live in barricaded enclaves, and more "private" towns are being developed. Barricades are being erected on Chicago's public streets in response to increasing crime. Security guards patrol, with the express purpose of discouraging nonresidents from entering the area. The idea of "defensible space" is being supported by some planners as a way to control one's neighborhood, and it is being incorporated in public housing as well as affluent neighborhoods.

There is growing concern that the problem of homelessness in cities is being institutionalized. According to the director of the National Law Center on Homelessness and Poverty, "Temporary solutions are becoming permanent. Shelters and soup kitchens are becoming our new national safety net. Programs to deal with the root causes of the problems, such as mental illness, lack of job training, and other social problems, are being lost, due to lack of funding.

Implications:

- ✓ As areas become more urbanized, attention, resources, and programs may shift away from rural areas to urban ones.
- ✓ Building a sense of community becomes increasingly difficult as more people live in walled off "private" towns.
- ✓ Inner city tax bases may continue to erode as these "private" towns are created beyond existing city boundaries, leaving the urban areas in further fiscal disarray.

State Economic Development Programs

Trend: Faced with tight budgets and questionable success of existing programs, states are retargeting their economic development efforts.

Background: State economic development programs are under fire, and have suffered from budget cuts in some states. In fiscally strapped states like Illinois and Michigan, the state economic development agencies have seen the state funded portions of their budgets cut by more than 70 percent since FY 1990. In part, agencies have been the target of budget cuts because of the perception that the vast number of existing development programs have failed to produce significant results. For example, state expenditures on foreign trade promotion quadrupled between 1984 - 1990. Much of the cost went to run new foreign offices, and a significant percentage went to pay for the travel itineraries of governors themselves. When challenged, these and similar programs have trouble documenting results, as opposed to activities. This makes them sitting ducks for state budget cutters. A popular federal program, the Small Business Development Centers, usually located at state colleges, also was threatened with elimination this year. Critics call the program a pork barrel, which benefits only the host colleges.

Faced with tight budgets, failures of some programs, and demand for accountability, states seem to be moving away from expensive programs which subsidize single firms, and towards more targeted, differentiated programs. David Osborne, who analyzed six state programs for his book, *Laboratories of Democracy*, concludes that industry recruitment, especially efforts to attract low-wage industries, brings limited benefits at high cost. Relocating firms are less likely to produce innovation and further expansion, and are likely to continue to move in an effort to find even lower costs. He also concludes that a low-tax strategy makes it impossible for a state to fund quality education and other amenities which are desirable to most businesses. William E. Nothdurft, writing in *Governing*, notes that successful European export programs target specific and customized assistance to individual firms which are ready and willing to export. Much of their assistance is provided indirectly through intermediary quasi-private sector providers, and general promotion activities are not emphasized. Some of these ideas, and new ways to track outcomes, are being adopted by states.

Targeting assistance to help small enterprises start and grow in lagging regions of a state is a strategy which may get more emphasis in the future. Small companies typically need technical assistance and relatively small amounts of venture capital to succeed. North Carolina's Rural Economic Development Center developed a microenterprise loan program to help entrepreneurs get up and running in their own businesses. It targets tiny but critical infusions of capital into start-ups, making loans so small most banks would spurn them. Closer to home, the Kentucky Highlands Investment Corporation has helped develop its region by providing venture capital to small, labor intensive businesses. While venture capital may remain in short supply in lagging rural areas, the venture capital industry appears to be picking up, making start-up capital more readily

available for new companies than it has recently been. Targeting support to business sectors, rather than individual firms, is a strategy employed by such states as Oregon and Pennsylvania.

States have begun to promote networking between the individual firms of local industries, as a way to provide technical assistance, upgrade production and develop markets. The Kentucky Wood Manufacturers' network is one industry group in Kentucky; it works to develop wood product manufacturing in the state and build on the existing primary wood industry.

Economic development assistance does not always move from government to private companies. In Newark, New Jersey, wealthy businessman Raymond Chambers is working to change the course of the city with a combination of philanthropy and shrewd business tactics. He has used seed money to get some efforts off the ground, used some profit-making programs to help support others, and leveraged his own money to develop an impressive list of community programs.

Implications:

- ✓ Public/private sector cooperation can be a way to find solutions that neither could manage independently.
- ✓ Businesses should be as free to propose joint public/private ventures in the interest of the community as the other way around. State and local government may have to rethink relationships in order to encourage these ventures.
- ✓ The continued difficulty of measuring the success of promotional programs may require adoption of improved evaluation methods, which lead to improved decisions regarding economic development policy.
- ✓ A long-run economic development strategy that may take some time to pay off could be difficult, politically, to maintain.
- ✓ The microenterprise approach may be cheaper than preparing huge incentive packages to attract mega-industry jobs (for which local residents may or may not qualify).
- ✓ If the problems of lagging regions of the state are not addressed, they can drag down the rest of the state, pushing up taxes and scaring away advanced industries looking for bright and skilled work forces.

International Trade

Trend: **International trade opportunities are shifting for US companies, who also are working to regain lost domestic markets.**

Background: U.S. trade with Southeast Asian and Latin American countries can be expected to grow rapidly, due to dramatic expansion of economies in these regions. While North American and European economies seem stuck in neutral, many Latin American and Southeast Asian countries are in high gear. Sales to Latin America increased 40%, to \$69 billion, between 1990 and 1992. Even more significant, according to Brad Edmondson, writing in *American Demographics*, there are signs that political and economic swings which crippled many of these countries may be ending, feeding hopes for stable, long-term growth. Southeast Asian economies also are booming; although they love American-style goods, they export to, but rarely import from, the U.S. Carol Conway, writing in the *Clearinghouse on State International Policies*, lays the blame for poor U.S. company performance in these markets on a lack of federal or state lending or informational programs targeting Southeast Asia, and the unwillingness of companies to do the homework they need to enter these unfamiliar markets.

Domestic automakers increased their share of the U.S. car and truck market in 1992 for the first time after decades of losses to Japanese and German labels. And a growing portion of the population seems to prefer American cars. A recent Gallup Poll found that 73% of Americans think American cars have the most comfortable interiors, and almost half rank American cars as the most trouble-free (48%).

The North American Free Trade Agreement (NAFTA) will have important effects on the U.S. economy and U.S. businesses. Analysts seem generally to agree that NAFTA will have a positive effect on the combined economies of Mexico, Canada, and the U.S., but the impacts on specific countries, regions, or industries are far less certain. Some say Canada's experience under the 1989 Free Trade Agreement between Canada and the U.S. is a warning to some of what may happen in the U.S. under NAFTA. Since 1989, Canada has lost 15% of its manufacturing jobs, Firms moved to the U.S., to take advantage of lower worker benefits and less unionization in the U.S. The U.S. International Trade Commission concludes that U.S. skilled workers and owners of capital services will benefit, while unskilled workers in the U.S. will suffer a decline in real income under the NAFTA. Conrol and Glasmeier, writing for the Aspen Institute, compare NAFTA to the European Economic Community. Unlike NAFTA, the European Community common market developed slowly through years of lengthy negotiation. Several compensation and adjustment funds were created (and still operate) to lessen the negative impacts on those regions, industries, and workers harmed by free trade. Conrol and Glasmeier recommend that the nations plan for long, open negotiations, and proceed only with transitional programs in place and operating. In strong contrast, Jerry Rosenberg, a professor at Rutgers University, proposes that we skip over NAFTA to extend the free trade area to all of the Americas.

Implications:

- ✓ The high-tech sectors of the U.S. are expected to win in NAFTA, with losers coming from the rural, less educated, low-skilled sectors. With "finished autos" and a few other isolated pockets of manufacturing as the only high-tech products from Kentucky, the state may rank low in the list of NAFTA beneficiaries.
- ✓ While Kentucky's agriculture is a potent economic force, farm gains from NAFTA may be small for the state's farmers. The Great Plains producers should benefit, as should seasonal fruit producers.
- ✓ The dramatic shift in attitude about domestic cars might be a sign that the painful restructuring in manufacturing during the past decade is paying off.
- ✓ Stronger economies in Latin America also could begin to relieve tensions in the area, including tensions between the U.S. and its southern neighbors.
- ✓ Kentucky's close association with Toyota, and the many tentative cultural/educational/business exchanges with Japan growing out of that, might be a springboard for moving into Southeast Asian countries.
- ✓ More emphasis is likely on improving state programs to assist exporters.

Communications Superhighways

Trend: **Telecommunications applications - and the infrastructure to support them - are mushrooming. Public policy decisions made in the next few years will largely determine the kind of networks we get.**

Background: Broadband technologies, which can carry huge quantities of information, are revolutionizing communications. Previously discrete media - telephone, computer data, movies, interactive video, operations sensors and control signals - now can be carried simultaneously on a single network. Not surprisingly, this is pitting different industries and companies against one another in a competitive race to build the high-capacity networks of the future. Telephone companies are investing billions of dollars to upgrade their networks with new technologies like fiber optics. Some cable TV companies are using their existing coaxial cable networks, and digital compression, to provide phone and data networks. The FCC recently ruled that telephone companies may transmit video programming. Microwave, radio and satellite systems also may provide voice, data, and video transmission. In addition to developments in the public arena, some large users are building networks exclusively for their own use.

The consensus is that the new "telecommunications superhighways" will be built by the private sector, not by government. But if public domain development is stymied, private, special-purpose networks will continue to develop to meet the private needs of those able to pay for them. A plethora of private networks, lacking universal standards and accessible only to a few, will not fulfill the social potential of those technologies.

Principles of universal service and equal access were at play as the nation's original telephone service was developed. Now, as the infrastructure of the information age develops, basic questions need to be answered again:

Should the new technologies be deployed everywhere?

Should everyone be entitled to basic service at an affordable price in the information age? If so, what is basic service and how will it be subsidized?

To what extent should government regulate the network providers?

What should be done to protect values of privacy and freedom of speech on the new networks?

The standards and configuration adopted for the super networks will affect their utility for various purposes. For example, a structure like today's telephone system, which largely is controlled by regional monopolies regulated as common carriers, would stress efficiency and limit competition and redundancy. A common carrier must serve everyone, under uniform rules, but it is the only carrier available. Another model sometimes mentioned is the Internet, the world's

largest computer network. This is a collection of networks around the world which have been connected using a highly flexible protocol. This network initially was built to allow academic researchers to have access to five supercomputing centers, and was designed to be very hard for terrorists, an enemy, or accident to disrupt. This model has the ability to service diverse end-use systems. This kind of structure would, according to some, promote continued competition and diversity of service offerings.

Implications:

- ✓ Will the information highway empower rural Kentuckians, or will it pass them by? If the development is largely privately driven, the state should become aware of the incentives that are driving that development.
- ✓ Kentucky state government may move to take advantage of the Internet, both in state agencies and in the school system.
- ✓ As networks integrate more and more (films via telephone, telephone conversations via broadcast, mail via FAX), regulators may need to reconsider the definition of utility, and the basis for regulating some of these industries and not others.
- ✓ The configuration of the state's announced "backbone network," which it wants to have built both for state agency and private use, could largely determine the organizational structure and control of future network development in Kentucky
- ✓ Encouraging development of information technology and ensuring public access to it will be, at times, conflicting goals.
- ✓ States, as large consumers of telecommunications and as regulatory policy makers, can play a large role in bringing the benefits of the information age in a timely fashion to rural areas, small businesses, and lower-income households.
- ✓ The information highway could bring with it significant opportunities to improve the lives of rural people through long-distance learning and tele-medicine.
- ✓ Access to "telecommunications superhighways" by rural, remote counties may level the economic development playing field, regardless of accessibility to major federal highways.

Restructuring Business

Trend: **The U.S. economy seems to be in a period of transition. Companies are being forced into fundamental change to survive.**

Background: New technology has spread around the world, trade barriers have come down, financial markets have been deregulated and consumer tastes have converged across borders. All these changes were once expected to give big firms even more scope to flex their muscles. Instead, they appear to have granted business opportunities to thousands of small and medium-sized companies, and exposed the bureaucratic inefficiencies and inertia of many corporate giants. Spectacular failures and layoffs at General Motors, IBM, Sears, and other large corporations have shown big firms to be frighteningly vulnerable to changes in their markets and to economic downturns.

While job displacement still is heavily concentrated in manufacturing and in goods-producing industries generally, displacements have shifted toward service and retail sectors during the 1980s. Information technologies are automating much routine office work.

Some see in these trends a fundamental shift towards smaller firms and plants. Smaller plants can shift from one product to another or change production schedules quickly. With fewer employees and fewer levels of management, but with the advantage of modern information resources, these small plants will be able to shift quickly to take advantage of new opportunities. A new book, *The Virtual Corporation*, envisions a future in which small companies move in and out of spontaneous partnerships, aided by high-speed communications networks, common standards, and informational data bases that will make it easier for companies to locate business partners. The result of these *ad hoc* partnerships is a "corporation" that may not exist on paper, but can accomplish much more than the individual companies could do separately. Another vision of future organizations, espoused in Charles Handy's *The Age of Unreason*, is a "shamrock" corporation. He predicts that the core of full-time workers will keep shrinking, as organizations farm out more work to contractors (the second leaf) and hire more temporaries (the third leaf of the shamrock).

The standard American job of previous years, with a forty-hour work week, medical benefits, and a pension at age 65, is disappearing for millions of Americans. Some views envision a major shift from full-time employment towards part-time, contractual and temporary workers. Job security continues to diminish. In the short term, at least, thousands of full-time jobs have been permanently lost through "downsizing." Part-time jobs and contract work are increasing as firms demand flexibility and seek to minimize non-wage costs (such as health benefits), and as workers choose the flexibility that comes with part-time work. Like many large companies in the

private sector, the Tennessee Valley Authority (TVA) has had to reduce its workforce from 34,000 to 19,000 since 1988. Instead of merely terminating these employees, however, the TVA retrained as many employees as possible, instead of recruiting new specialists, and created an employee-transition program to help displaced workers find a new job, train for a different occupation, or start a business. They have even offered low-interest business loans to employees.

Deeper changes may be required. Ray Marshall and Marc Tucker, in their book *Thinking for a Living*, argue that a revolution both in education and business thinking is needed to keep the U.S. from becoming a low-wage nation. Companies have skimmed on outlays both for worker training and operational improvements, and now are paying the price, according to these authors. Findings from a joint research project of the Harvard Business School and the Council on Competitiveness support the claim that these areas have been neglected. That report faults investors and managers for placing undue stress on current returns and stock prices, at the expense of fundamental company strength. The authors call for reforms, to increase "true" ownership throughout the system, so that board members, investors, and others actually have a stake in the long-term performance in the company. Proposed reforms include incentives for long-term equity investments, R&D and training, removal of subsidies for real estate investment and short-term stock trading, and expanding corporate disclosure to provide investors more meaningful information.

Officials concerned that present restructuring will lead to disaster can take some comfort from history. As editorial writers in the *Economist* point out, workers have been displaced by machines ever since the invention of the printing press, yet continuous economic advance has not meant ever-rising unemployment. While the jobs now being lost may be lost forever, new products and services are creating new jobs and opportunities.

Services for the elderly is one area that is expected to grow rapidly in coming years. Older Americans, now 13% of the population, are expected to account for 22% by 2030, and are expected to increase demand for many kinds of personal and health services.

Implications:

- ✓ If restructuring is a necessary phase into higher efficiency, prosperity and economic well being for the nation and its people, then the worst thing that governments can do is to retard this admittedly painful process with subsidies to obsolete industries, or protectionist barriers.
- ✓ A growing perception that Wall Street and board room excesses have hurt American corporations may signal changes to discourage investment strategies which concentrate solely on short-term shareholder gain.
- ✓ If investments of the state-administered pension funds are managed solely for short-term gains, then policies might be reviewed to make targeted, long-term investments without lowering long-term earnings.

- ✓ Kentucky may want to review its own tax system to encourage long-term savings and investment, and not subsidize unproductive speculation.
- ✓ Government might be called in to encourage company-financed transition programs for terminated workers, like the TVA programs. These programs carry "bottom-line" benefits - higher employee morale and public goodwill.
- ✓ A shift towards smaller companies reduces the potential returns from state recruitment of individual companies. However, a community with several smaller plants has less chance of experiencing severe hardship related to an individual company's poor performance than with one large plant.
- ✓ The narrowing of economies of scale, along with the general empowerment offered by information technology, serve as a sort of equalizer for small companies (and even for small states, like Kentucky, in attracting business). Making use of the opportunities requires aggressive management and an educated workforce.
- ✓ Management and workforce increasingly are one and the same, as organizations downsize and management structures flatten.
- ✓ Increasing rates of job displacement may increase public pressure for legislation that allows basic benefit programs, such as health insurance coverage and retirement contribution, to follow displaced employees.
- ✓ The shift in the labor market will affect government and taxpayers. As millions of Americans live by temporary work, with resources inadequate to supply themselves and their families with health care and retirement savings, the burden on public resources will grow.
- ✓ An article in *The Utne Reader* suggests that the increased use of contingent labor is exacting a huge social cost by increasing income inequalities and threatening the long-term productivity of the economy.
- ✓ Heavy reliance on contingent labor may violate the "social contract" between employers and workers. Employees with little stake in their jobs are unlikely to feel much loyalty to their bosses, and they cannot be expected to put out the same effort as full-time workers.
- ✓ Adequate unemployment insurance for contingent workers has been suggested as one means of making the arrangement less attractive to employers.
- ✓ Restructuring calls increasingly for workers to be critical thinkers and problem solvers who are flexible enough to adapt to ever-changing situations.

Education and the Disadvantaged

Trend: Innovative programs offer some hope of improving low-income students' access to education, but the portion of these students attending or graduating from college has not increased.

Background: College attendance and degree-attainment rates of youth continue to be closely correlated to the income of the student's family. A study released by the Democratic Study Center found that since the late 1970's, low-income students have not gained any ground on their higher income peers in the rate at which they attend college, despite the fact that a college education increasingly is needed for a middle-income salary. While the proportion of youth enrolled in two-year colleges was relatively even across income quintiles, twice the proportion of youth in the top quintile attended four-year schools, and nearly three times as many attended private colleges, as youth in the lowest income quintile. The program recently enacted by Congress to pay college expenses in return for national service is seen in part as a way to reduce this disparity.

Computers are proving very successful in several adult literacy programs. Because they are infinitely patient and not judgmental, computers have helped some people read who failed by conventional means. Also, since computers are controlled by the student, some students are able to improve reading skills much faster than by standard programs.

One way to bring better education to low-income children may be to take it home. A developer in Los Angeles has built a 46-unit apartment complex with an in-house education program. Resident tutors work closely with the teachers of the children living in the complex, and families receive waivers from the rent for good grades. The developer expects to recoup costs in part from lower maintenance, due to low vandalism and turnover rates.

Implications:

- ✓ The Kentucky Housing Corporation might want to experiment with in-house tutorial services, linked to the family and youth service resource centers or district adult education programs.
- ✓ Creative use of computer resources, such as computers obtained through education technology programs, may develop, requiring only additional software and administration.
- ✓ The state may want to review college recruitment and financial aid policy to better address the needs of students from low-income families.

Flexible Curricula

Trend: **Innovative schools and teaching methods are tailoring programs to individual student abilities.**

Background: Parents and teachers have long recognized that children do not all learn in the same way or at the same pace. Indeed, work over the past decade has established the idea of multiple intelligences, that intellect incorporates several kinds of abilities. School and IQ testing have concentrated on logical/mathematical and linguistic intelligence, which are easily measured and which are emphasized in standard curricula, to the detriment of other abilities, such as musical, kinetic, interpersonal, and spatial intelligences. Advocates of incorporating individual learning styles into school programs see the ideal school of the future as one which assumes that not all people learn in the same way, and which provides multiple curricula to match students' interests and abilities.

The importance of the "arts" - music, dance, drama, creating writing, and fine arts - to student performance in school is becoming increasingly acknowledged. Several recent studies have shown a link between artistic skills and overall school performance. Nevertheless, so far the arts are still the last program to be funded in many schools, and they have been dropped from many school curricula altogether. KRS 158.645 sets forth the intent of the General Assembly that students have "sufficient grounding" in the arts to enable them to appreciate their cultural and historical heritage.

Primary classrooms allow young students flexibility, not so much in curricula as in the pace of learning and timing of certain tasks. Twenty-five years of research into non-graded schools consistently favors these programs, and shows they especially help students who are underachievers in conventional school settings.

State legislators in many states are rallying around the concept of charter schools, as a way to offer choice to public school students. Charter schools legislation, pioneered in Minnesota and California and passed in at least 10 other states, allows teachers to sign a charter with their district to create their own schools, emphasizing some particular learning style or subject specialty. These schools are released from most state regulations, but must produce specific student results. The charter schools are one way to make various types of schools accessible to public school students

Implications:

- ✓ If the primary program proves to be as successful as it has been elsewhere, the school councils may eventually choose to extend them beyond grade 3.
- ✓ Telecommunications will offer practical tools to allow students more choice of curriculum.
- ✓ Realization that arts instruction is important to overall student achievement may lead to increased use of arts education in schools.

Voter Participation

Trend: More states are looking at ways to improve voter participation.

Background: Voter turnout in the U.S. continued to fall in the 1980s, and was second lowest among 20 advanced democracies. In Kentucky, 73.2% of registered voters cast their ballots in the 1992 general election, compared to 66.6 percent in the previous presidential election year, 1988. The turnout was 41st in the nation. (Kentucky's percentage of voting age persons registered ranked 24th in the nation, or about average for the country as a whole.) Kentucky general election turnouts in other recent years were 42.1 percent in 1991, 50.5 in 1990, and 48.7 in 1989. Registration reform often is cited as a help, but it is expected to increase voter participation by only about 15%.

Growing numbers of woman legislators are believed by some to have increased citizen access to policy making. Researchers at the Center for the American Woman in Politics found that women in office, compared with their male colleagues, are more likely to bring citizens into the process, are more likely to opt for government in public view, and are more responsive than their male counterparts to groups previously denied access to the policy making process.

Although it has been common practice to allow residents to vote before election day by absentee ballot, if they would be out of the county on election day or if they have a physical disability that would prevent them from going to the polls on election day, some states have recently allowed any resident to vote in person before election day at designated polling places, such as county clerk offices or board of election offices. In November 1992, three states allowed early voting - Colorado, Oklahoma, and Texas. In Texas, 73 percent of those registered voted in the general election, and 30 percent of those took advantage of the opportunity to cast their ballots before election day. Oklahoma and Colorado votes expected similar results.

Implications:

- ✓ The question of early voting is likely to be raised in Kentucky.
- ✓ Given the alleged use of absentee ballots to buy votes in Kentucky, any scheme for early voting would need to be designed with safeguards to prevent abuse.

Voter Demographics and Schools

Trend: **Voter demographics seem unfavorable to schools.**

Background: "The downward trending fortunes of public education in many communities" may be related to a sharp decline in the number of households with children under 18, says a Massachusetts legislator writing in *The Atlantic Monthly*.

The percent was 48.4 in 1960, 44 percent in 1970, 37.5 in 1980, and 34.6 in 1990. The author, Michael Barrett, said numbers like these are not rigidly predictive, but suggest a waning intensity of interest in improved schools. A related concern is the fact that voter participation is higher among the elderly than among people with school-age children.

Comparable household data regarding children under 18 is not available for Kentucky for the four census years. However, this information is available for families, which are a subset of households. For Kentucky, the percent of families with their own children under 18 years old was 56.3 percent in 1960, 54.8 percent in 1970, 53.2 percent in 1980, and 49.3 percent in 1990. As expected, these rates are higher than the national household rates, due to the exclusion of non-family households in the Kentucky data. However, Kentucky has experienced the same downward trend in the proportion of families that have children under 18 years old.

In Kentucky, of registered voters in the age groups that would include households with children under 18 years of age, 27% voted in the 1991 statewide primary, compared to 45% of registered voters over the age of 50. Similar results were recorded in the 1992 presidential election, with 63.3% of registered voters who might have school-age children voting, compared to a turnout of 80.9% of registered voters over the age of 50.

Implications:

- ✓ Efforts to provide additional funding for education will need widespread support.
- ✓ Efforts to develop a sense that everyone gains by an educated populace, linking education levels with economic development and community prosperity, will continue to be significant.

Health Care Costs

Trend: Health care costs continue to rise, leading to speculation about causes and solutions.

Background: For five decades, per capita medical expenditures in the U.S. have increased at about four percent per year (except during the 1960s, when their growth was faster). This rate far exceeds the general inflation rate over the same period. The share of the gross national product devoted to medical costs has been steadily growing.

The bulk of the rapid increase in health costs was the result of technological and scientific advances in medical care, according to a study in *The Journal of Economic Perspectives*. The advances included such things as new equipment and new procedures, including transplants and coronary bypass surgery. The rapid increases occurred in many countries with a variety of health-care systems.

Some of the blame for the rise in costs has been aimed at doctors who have a potential conflict of interest. *The Wall Street Journal* recently described two new studies indicating that the cost to medical consumers goes up when physicians have an economic stake in diagnostic and treatment facilities to which they refer patients.

The reports, one of which appeared in *The Journal of the American Medical Association*, come at a time when ownership of medical services by physicians and physician joint ventures are drawing close attention from legislators and government agencies. One of the studies showed that various tests were performed from 1.7 to 7.7 times more often on patients of doctors who owned the testing facilities themselves. The other study showed that physical therapy centers owned by physician joint ventures had much higher charges and utilization rates than independent centers. The independent centers also devoted much more time to their patients than did physician-owned centers.

One way to cut medical costs may be to increase the use of "advanced-practice nurses." *Business Week* says that nurses with education and clinical training beyond the two to four years of basic nursing education can provide 60 to 80 percent of all primary care, and they can do it for less money than doctors are paid. First visits to a nurse practitioner cost 12 percent to 45 percent less than such visits to a physician, the magazine says. Dr. Stanley Bergen, president of the University of Medicine and Dentistry of New Jersey, says, "There's going to be a concerted effort to get less expensive personnel to deliver care, especially primary care. And nurses are a natural."

There is a debate over whether rising health costs are hurting America's position in the world economy. An article in *The Harvard Business Review* says that business leaders blame health care costs for jeopardizing their global competitiveness. The authors of the article maintain, however, that "efforts to control health care costs are unlikely to improve America's competitive position." Health care represents only about five percent of total production costs, and most of

the rapidly increasing health cost is borne by workers, not passed along to consumers. "Even if health care costs grow 20 percent each year," the article says, "they will remain insignificant in terms of the prices and trade flows that determine global competition."

Implications:

- ✓ Cost control may mean more sharing of medical technology equipment between hospitals.
- ✓ The issue of use of nurses for expanded health care purposes will continue to be of importance.
- ✓ American companies may be forced to more closely manage their employee health plans. The *Harvard Business Review* article claims that corporate managers must stop blaming uncontrollable health care costs for their problems. Instead, they should "begin to view the management of health care as a strategic initiative." Ultimately, the authors say, companies will have to manage the health of their employees as meticulously as they manage their most precious product or service.
- ✓ Providers may be prohibited from patient self-referral if they own more than a certain percentage of the medical services.
- ✓ Cost control may lead to experimentation with selective contracting for certain types of services.
- ✓ There have already been substantial reductions in employee health plans through reduced benefits and higher deductibles, co-payments and other employee cost-sharing, and more of this is likely.

Poverty

Trend: **Statistics indicate that poverty in America is on the rise, especially if the measuring methods used are realistic ones.**

Background: The share of full-time workers earning low wages (defined as below poverty-level for a family of four) rose sharply during the 1980s, says a U.S. Census Bureau report. The number of such workers now stands at nearly one in five. Low-skilled workers, particularly young ones, are finding it more difficult to reach a middle-class lifestyle. The trend held true regardless of sex, race, or origin, but workers aged 18 to 24 lost the most ground. In 1979, 23 percent of these younger workers earned low wages; by 1990, the figure was 43 percent. Workers aged 25 through 34 didn't fare much better.

Even college-educated workers are feeling the pinch, two economists said recently in *The New York Times*. Their salaries reportedly have failed to keep up with inflation since 1989. But the economists said college-educated workers can at least usually get low-paid jobs, while those with less education frequently can find no work at all.

A recent report by the Census Bureau showed the nation's poverty rate increasing from 13.5 percent to 14.2 percent during 1991.

Children may be the worst victims of the increase in poverty. In 1991, according to the Census Bureau, 40 percent of the poor were children under 18. One in four children under age three was said to be living in poverty. The increased number of poor children caused many needless deaths from malnutrition and poor health care, according to a survey of pediatricians quoted in a recent *New York Times* article. The physicians said many of the problems could easily be addressed by a government willing to devote more of its resources to children.

As bleak as these statistics appear, some experts say they understate the problem. A new book, *The Forgotten Americans*, asserts that U.S. government figures grossly underestimate the number of Americans living in poverty. The book, by John E. Schwarz and Thomas J. Volgy, says that in 1989, 56 million Americans, or 22.8 percent of the population, lived in households with incomes that could not realistically provide for basic necessities. The authors assert that six million--not two million, as the government reported--full-time workers live in poverty.

The official level of poverty, they say, has fallen far from the level of reality. One reason given was that the formula was devised in 1963, using 1955 consumption data. At that time, the average family spent about a third of its budget on food, so the poverty level was set at three times the lowest realistic food budget. But by the early 1980s, housing costs had skyrocketed, and food had fallen to about a fifth of the average family budget. The problem was compounded by the fact that the government, in the late 1960s, pegged the poverty line to the consumer price index, which measures price changes in all consumer goods. But the price of necessities went up far more than that of other goods. A realistic formula, according to these authors, would have set

the 1990 poverty level for a family of four at about \$20,000, compared to the government's figure of \$13,000 a year.

Implications:

- ✓ An increase in the poverty rate is especially bad news for Kentucky. The 1991 Census Bureau figures show Kentucky with a poverty rate of 18.8 percent, compared to 14.2 percent for the nation as a whole.
- ✓ As poverty rises, fewer people can afford health insurance. The percentage of Americans without medical insurance increased from 1990 to 1991.
- ✓ Revising the U.S. government's methods of estimating poverty might put further strains on public and private programs to aid the poor.
- ✓ As poverty rises, more people live in substandard housing and more are at risk of homelessness.

Families and Child Care

Trend: Amid predictions of the breakdown of the nuclear family, we are seeing an increase in unconventional child-rearing arrangements, designed to provide stability.

Background: The isolated nuclear family is on the way out, said experts quoted in a *Time* magazine article examining trends foreseen for the early years of the next century. The traditional family, according to the article, could be replaced by "serial monogamy" and loosely knit clans. Institutions, employers, neighbors, and friends may take over roles once dominated by families, leading to battles over household turf, inheritance, and rivalries for affection.

One new system of child rearing that originated in Europe is being tested in Illinois and Florida. Children in groups of ten are given foster care by an unmarried woman in a "village" setting. The woman receives a wage, days off, and vacation pay. A "middle class" allowance is provided to buy consumer items. The goal is to simulate a family structure, build a bond between foster child and foster mother, and provide continuity that is absent in the present American foster care system. The programs are primarily funded through private donations. The foster mothers are paid \$18,000 to \$20,000 and asked to commit to the program for 10 to 15 years. Applicants have been plentiful, according to the National Public Radio broadcast that described the programs.

According to some experts, none of the new "family" arrangements can substitute for the traditional two-parent home. According to David Blankenhorn, head of the Institute for American Values, the absence of fathers in families is at the root of a long list of social problems--poverty, incivility, domestic violence against women, child abuse, lowered trust in social institutions, teenage suicide, and crime, among others. Columnist William Raspberry asserts that the most important predictor of criminal behavior "is not race, not income, not religious affiliation. It's father absence." The Progressive Policy Institute finds that "controlling for family configuration erases the relationship between race . . . or between low income and crime."

More blended families with stepparents and stepchildren are occurring. *The Utne Reader* carried a series of articles discussing the move away from traditional family structures. Parents are spending less time with their children, one article asserted, and this failure is hurting society, as well as the children themselves. Employers complain that young people show up for work without basic life skills. Communities suffer from delinquency and substance abuse, both of which are powerfully influenced by the degree of supervision children receive and by children's attachment to parents. One of the authors blamed many of society's ills, including a widespread sense of entitlement coupled with a weak sense of responsibility, on poor parenting. Others see that families are increasingly relying on outside child care. One factor that contributes to the lack of supervision of children by parents is the financial disincentive for one parent to stay home.

Some of the futurists consulted by *Time* predicted a bleak future for people who cannot meet family obligations or create a family structure. One author foresees hordes of unsupported children trying to survive in the streets, as is now common in Brazil. Some expected schools to

become 24-hour family support systems, offering child care, sanctuary for abused children, and shelter. To meet such developments, it was suggested, extended families might be allowed to incorporate themselves as businesses. This would qualify them for tax breaks for helping each other establish businesses, obtain education, and receive social services.

Implications:

- ✓ As baby boomers get older and more of them establish families, there may be a movement back toward traditional child-rearing arrangements.
- ✓ Efforts to allow extended families in Kentucky to incorporate might emerge.
- ✓ Reform of foster care may become an issue.
- ✓ Women with children are the fastest growing segment of the workforce. Child care is a necessity for these women, if they are to remain in the workforce.

Youth Violence

Trend: **Violent crime is increasing among young people. Perhaps as a result, American attitudes toward gun control are changing, early intervention in youth problems has been suggested, legislators have been asked to "get tough" on youthful offenders, and new techniques are being developed to fight street crime.**

Background: The rate of violent crime by juveniles in the United States increased more than 25 percent in the last decade, according to an FBI report. The rate of arrests of juveniles for violent offenses in 1990 was 430 per 100,000, a 27 percent increase over 1980.

The report showed a 79 percent increase in the use of guns by juvenile murderers over the period. Nearly three of every four youthful murders involved a firearm.

Guns are now the leading cause of death among children of high school age in the U.S., according to Alan Fox, dean of Northeastern University's College of Criminal Justice. About 100,000 students are believed to bring guns to school each day. On a typical day, 40 American children are killed or injured by guns.

Fox says the sharp increase in juvenile killings is the result of the availability of guns, the glorification of violence on television, and the breakdown of the American family. The FBI report claims that "much of the violence reflects a breakdown of families, schools, and other institutions -- with as many as seven of ten juvenile offenders coming from single-parent homes.

Other factors often cited as reasons for the increase in juvenile crime are the reluctance of school authorities to report crime in the schools; the inability of juvenile courts to have early effective intervention in juvenile problems; and the limited number of choices of incarceration and treatment alternatives for children in trouble.

Many states have recently passed legislation lowering the age at which children may be tried as adult criminals, adding adult type sanctions, such as youth prisons, prison boot camps, and other programs for juvenile offenders, revoking driver's licenses for crimes by juveniles, making juvenile crime reports (including names of the juveniles) public, and making juvenile court proceedings public. This may be an off-shoot of the "get tough" attitude that the public and many legislatures have applied to the adult offender.

Various polls have indicated support for stiffer controls on firearms; the Congress has passed the "Brady Bill," requiring a five-day waiting period for handgun purchases, background checks on purchasers of handguns, reporting of the sale of more than one handgun to the same purchaser to the police, and allowing for instant computer checks on handgun purchasers if the state installs such a system; various states have increased waiting periods, banned certain types of firearms, and limited the number of firearms that can be purchased, all in hopes of stemming the violence.

Implications:

- ✓ Kentucky has traditionally enjoyed a low incidence of violent crime among its youth. The spread of guns and gang culture may bring increased violence to our streets.
- ✓ There may be pressure on Kentucky's lawmakers to place additional controls on firearms sale and use.
- ✓ There may be pressure on Kentucky's lawmakers for such actions as requiring early intervention in juvenile cases, trying juveniles as adults at an earlier age, providing additional incarceration penalties for juvenile offenders, increasing the number of treatment and incarceration options for juvenile judges, making juvenile records and juvenile proceedings public, and transferring responsibility for secure juvenile institutions from the Cabinet for Human Resources to the Department of Corrections.
- ✓ There may be pressure on Kentucky's lawmakers to hold parents responsible for various acts of their children (they are already liable for damage to property and thefts from retail establishments).
- ✓ There may be pressure on Kentucky's lawmakers to require school authorities to report crimes occurring on school property, on school buses, and at school activities.

Prisons

Trend: **Prison overcrowding is fueling a debate about alternatives to incarceration and about the role of prisons in American society.**

Background: The number of people in state and federal prisons quadrupled between 1970 and 1990, much faster than any increase in the overall crime rate. Today, the combined state and federal prison population is approaching 1 million--not including the occupants of county and local jails.

Ten states have had increases of 150 percent or more in their inmate populations over the past 10 years. California's prison population has increased by 263 percent since 1970.

In Kentucky, the Census counted 2 1/2 times as many prisoners (9,023) in 1990 as in 1980 (3,588), while the number of serious crimes per 100,000 population actually declined from 3,434 in 1980 to 3,299 in 1990.

Because of prison overcrowding, public attitudes toward incarceration may be changing. The conventional wisdom is that the public is obsessed with the "lock 'em up and throw away the key" approach. But surveys in Alabama and Delaware have shown that public opinion is highly favorable to alternative corrections methods, if those methods are properly explained. When survey respondents are shown videos explaining options such as strict probation regimens, community service work, electronic monitoring, and "boot camp," prison is chosen only for a few of the worst offenders. Kentucky has authorized a wide variety of alternatives to incarceration.

The Kentucky Capital Planning Advisory Board included in its 1992-98 Statewide Capital Improvements Plan a recommendation that "the 1994 General Assembly review all mandatory sentencing statutes to determine if the sentencing requirements still meet the needs of the Commonwealth." This recommendation was based on projections of increased felon populations and the belief that the state "cannot afford to build its way out of the overcrowded prison situation."

Some experts in prisons and corrections believe that the bulging prisons are a sign that our society has given up on its lower classes. Americans may have decided that the problems of the urban poor are intractable, and that the only solution is to house such people in a vast network of prisons. Jail is where we provide young poor people with shelter, adult supervision, medical care, drug and alcohol rehabilitation programs, and balanced meals. Often, prison offers the best opportunity for job training and remedial education.

The prisons are full of the failures of our public schools. The realization that 70-75% of prisoners nationwide are high-school dropouts, and that most inmates perform several grade levels below the last grade they completed in school, has led many prison systems to offer a variety of educational programs to inmates. However, budgets have not kept pace, and programs

are being cut or canceled. One of the problems is that studies to date have not consistently shown clear, significant relationships between prison education programs, or educational attainment, and prison recidivism rates. Many experts believe that traditional attempts to educate prisoners will fail to reduce recidivism unless the programs are tailored to the non-traditional population and include focus on social skills and social thinking patterns. Faced with short budgets, prisons are turning to other innovations as well. California has invested heavily in computer-assisted programs, while Maryland is using inmates more heavily as teachers' aides and tutors.

When new prisons must be built, some states use inmates to do the work. North Carolina recently adopted South Carolina's policy of using state inmates to build more prisons. South Carolina began the practice in 1976 and estimates that it has saved \$7 million in the construction of 12 prisons. Some inmates are even hired as prison-construction supervisors when their terms are up. The experience is said to help others get jobs in the private sector.

Implications:

- ✓ Alternatives to prisons may become increasingly popular. In the past decade, at least 18 states have adopted legislation to establish community-based corrections sentencing programs.
- ✓ Some critics see a perverse irony in the fact that Americans are willing to spend enormous sums on prisons, but are angered when public money is spent on less expensive programs that might improve conditions for the urban poor and decrease the level of crime. This may change.
- ✓ Increased imprisonment is making little difference in the crime rate. A professor of law and criminology at the University of Chicago says the U.S. doubled the number of prisoners from 1980 to 1990, but the crime rate remained about the same.
- ✓ If cuts are made in Kentucky's prison programs, special attention should be paid to the educational programs and their effects on recidivism.
- ✓ The link between the lack of education and crime indicates that the added emphasis on keeping children in school is well warranted. Prison populations may be reduced if schools have fewer failures.

Alternative Legal Methods

Trend: Alternatives to trial and to the traditional lawyer-client relationship are changing the practice of law.

Background: The idea that technological unemployment may menace lawyers is a new one, but computers with the proper software are beginning to make a dent in the volume of legal work. For example, Metropolitan Life does not automatically call in its legal experts when it's ready to close a commercial real estate financing deal. Often, paralegals call up a software program that asks a series of questions, then produces within fifteen minutes a checklist of the documents needed to complete the loan. Meanwhile, Motorola envisions having its sales and administrative employees draft their own contracts with the aid of software. Sears already uses a program that tracks lawsuits, drafts summonses, and answers pretrial discovery requests. Other corporations are said to be pushing their law firms to take advantage of modern technology.

In Kentucky, some legal conflicts that would normally go to trial are being settled in a new way. The newly opened Lexington Mediation Center, based on a similar project in Atlanta, will provide a means by which Kentuckians who have non-criminal legal disputes can negotiate settlements without going to court. The center was recently reported to have mediated more than 120 circuit and district court cases, saving the parties and the court system time and money. Each party in a mediation pays a \$30 fee. The mediators, 75 percent of them lawyers, are volunteers, and they receive training to help them open lines of communication, clarify the issues of a dispute, and identify the options for the parties. The parties, however, arrive at decisions by themselves; the mediator has no control over the result.

Implications:

- ✓ Legislatures may be forced to consider whether the use of legal software constitutes the practice of law.
- ✓ Mediation may attract businesses because of its low cost and convenience.
- ✓ Mediation may help minorities and people with low incomes. In the mediation process, such factors as cultural differences, previous relationships, and patterns of behavior that might not be considered by a court can be taken into account.

Children

Trend: New theories are changing the enforcement of child support awards and casting doubt on the truthfulness of children's court testimony.

Background: Reform of child support laws can help end "welfare dependency" and increase the well-being of children living in single-parent households, experts say. The federal government and some of the states have begun changing laws on child support awards and the collection of payments.

The 1988 federal Family Support Act requires routine income withholding of child support payments--that is, collecting child support directly from the payer's paycheck. Two scholars writing in *Contemporary Policy Issues* conclude that income withholding is not enough, however. Marieka Klawitter and Irwin Garfinkel suggest three requirements for substantially increasing post-divorce income and child support: (1) more court cases must establish awards; (2) the amount of the awards must be greater; and (3) the collection rate for those who have awards must improve.

One state is trying a new method for prying court-ordered payments from delinquent parents who earn their living in occupations licensed by the state. California denies licenses or revokes existing licenses if child support payments are not made. So far, the program is said to be hampered by lack of coordination among state agencies.

In 1993, eight legislatures enacted the Uniform Interstate Family Support Act (UIFSA), which overhauls interstate child support enforcement rules. More states are expected to consider it in 1994. The mobility of the population has increased the need for effective interstate child support enforcement mechanisms.

Meanwhile, the veracity of children's testimony in court is being called into question. New studies at Cornell University have cast doubt on the truthfulness of testimony by young children under circumstances typical in legal cases. Researchers found that asking young children a question several times over a period of weeks typically causes them to begin fabricating memories of events that never happened.

After eleven weekly sessions in which children were asked whether a list of events had ever happened to them, more than half reported at least one false event as true. Some reported all the false events as true.

Videotapes made by the researchers showing children recounting both true and false stories were shown to more than 1,000 professionals who specialized in child abuse--lawyers, social workers, and psychiatrists. The experts' guess as to which children were telling the truth was found to be wrong more often than right.

Implications:

- ✓ If child support is to improve, the courts may have to take a more active role. Legislatures can pass laws encouraging payments, but courts must set more awards and must set them higher.
- ✓ With the testimony of children thrown into question, it may become more difficult to obtain convictions in child abuse and sexual abuse cases.

Job Skills and Training

Trend: Only skilled, highly trained workers are likely to succeed economically or to help America's economy grow. Businesses and governments are recognizing the need for job training.

Background: Skilled workers are holding their own in America's economy, but those without training are not. The income gap between college graduates and people with high school educations or less has grown from 30 percent to 60 percent in recent years, and it continues to grow, Secretary of Labor Robert Reich said recently.

The trend toward rising joblessness in the United States is mainly a problem related to lack of skills. In the *American Economic Review*, Robert Topel says that unemployment among those above the median of wage distribution is the same now as it was 25 years ago. But there has been a slackening in demand for less skilled workers, and their wages and time worked have fallen accordingly.

Economists believe that America needs highly trained employees to keep its place in the international economy. A well-educated labor force is now a requirement for full participation in international commerce, say Richard R. Nelson and Gavin Wright in *The Journal of Economic Literature*. Without adequate job training, they contend, "the United States may be in the process of slipping into second, third, or fifth rank in productivity and per capita income, and in terms of mastering the application of several important technologies."

The lack of trained workers is having an impact on southern states. A study by MDC Inc., an economic research firm in Chapel Hill, North Carolina, found that "a shortage of people who can read, write, compute, communicate and think critically has left the South in the jaws of a new economic trap." Southern employees and employers are likely to devote more time to education in the future, the study said.

A need for more trained workers does not necessarily imply a need for more college graduates. High school and vocational school students could receive better preparation for the job market than they get now. Some sources say our schools are guilty of concentrating on college preparation and ignoring the training needed by the majority of students. An article in *Smithsonian* points out that while fewer than 20 percent of young adults complete college degrees, secondary schools devote disproportionate amounts of time and effort toward those students and often forget those who have other goals. As a result, many students graduate from high school without either plans to attend college or any marketable skills. Columnist Neal Peirce says the "new message has to be that dignity, real jobs (and) promising careers await young people who pursue a paraprofessional route and stick with school long enough to learn the conceptual skills they'll need to keep on learning as jobs change over time."

This change may demand a new attitude toward vocational training. A report by the RAND Corporation indicates that the feelings of educators have changed little in half a century: "Most high school teachers and administrators do not think much of vocational education. They do not think very often of it, either. And when they speak of it, the phrase 'dumping ground' is often on their lips."

Some programs are trying to counter that image. *Smithsonian* describes a Pennsylvania pilot project in Williamsport, a city of 35,000 that depends heavily on manufacturing. The Pennsylvania Youth Apprenticeship Program was started last year in the metals trades. It already has been so successful that it is being expanded to other occupations and locales. Participants in the program work full-time three days a week and attend high school classes the other two days. The program is not targeted for slow learners, nor is it a dropout prevention program. It is for mainstream students who want a different type of opportunity. Applicants are interviewed and chosen by potential employers. They must have a C average or better and good grades in math and science.

Businesses are recognizing the need to keep their employees' skill levels high. A *Wall Street Journal* article cited the example of a Dalton, Georgia, carpet plant that was faced with the need either to move overseas and find cheap labor or to educate its workers so that they could operate a modernized plant. The Collins & Aikman company chose the latter course, making a large investment in providing high-school equivalency and other basic-skills training that employees did not get in the public schools. The *Journal* article cited similar programs at numerous other plants. Many companies are enlisting the aid of community colleges for the same purpose. Curricula include everything from workplace literacy to calculus and computer-aided manufacturing.

Teaching literacy in the workplace can be expensive, but it is very effective. Almost everyone who takes a workplace course completes it, whereas dropout rates can be very high in traditional programs. The "family literacy movement" combines reading instruction with classes in parenting. Parents and preschoolers may attend classes together.

State and local governments have begun to appreciate the value of worker training. Since 1990, 20 states and numerous cities have launched pilot apprenticeship programs. California's foresight in setting up a retraining program for skilled workers ten years ago is reaping benefits, now that the state's economy is in transition, says *State Legislatures*. The plan was financed by a levy of one-tenth of one percent on unemployment insurance premiums. The result has been the largest and most comprehensive retraining program in the country. The state requires its subsidized training schools to return the training money if a trainee cannot get a job and keep it for at least 90 days. About 150,000 workers have been retrained under the program. In 1993 Kentucky initiated a multi-agency study of worker training with a grant from the NCSL DeWitt Wallace Reader's Digest Fund. Under the auspices of the leadership of the Kentucky General Assembly the study will be completed by 1995.

Implications:

- ✓ Businesses and trades may return to apprenticeship as the best way to bridge the gap between education and employment. In Germany, 65 percent of the work force is trained through apprenticeship in 500,000 firms.
- ✓ While corporate America spends \$30 to \$40 billion a year on job training, only ten percent of it goes to the blue-collar workers, who have the greatest need. Businesses might profit by directing their training dollars to the people who need it most.
- ✓ Elderly workers, whose skills were acquired before many of today's jobs even existed, need retraining as badly as any other group. If economic forecasts are true, many Americans will have to work past the traditional retirement age. The average age of Americans is creeping upward, and society may not be able to support a vast cadre of dependent elderly people. Rather than having citizens retire at 65 and live 25 or 30 years longer at taxpayer expense, the country may have to develop policies that empower senior citizens and promote lifelong learning.
- ✓ Several European companies offer "career break" programs that keep an employee in touch with the company even during an extended leave. Instead of merely providing family leave or long vacations, these companies provide training and supervision to enhance the employee's skills while he or she is absent from work.

Retirement Benefits

Trend: Retirement benefits of today's working Americans are becoming less secure.

Background: The continued sluggishness of the economy, together with falling investment earnings, have created growing shortfalls in pension funds in both the public and private sectors. The shortfall in employee pension funds guaranteed through the federal Pension Benefit Guaranty Corp. increased by 25% in one year. In part this is because some companies operating under bankruptcy court protection have increased pensions for employees rather than raising pay. While the federal pension insurance fund is financed by payments from companies with pension plans, taxpayers must pay if the fund runs out of money. Some think this has the potential to be the next S&L crisis, if remedial measures are not taken quickly.

Several states and local governments have in recent years reduced payments to their public employee retirement systems by methods ranging from revising actuarial assumptions to withdrawing assets from the pension fund. Investment earnings were higher than anticipated during much of the 1980s, making pension assets attractive sources of savings for otherwise strapped governments. Now, however, some think it is doubtful whether pension managers can continue to achieve high returns. Unless payments are again increased, benefits under some plans may become insecure again.

Beyond concern over the solvency of existing pension plans, several trends point to lower retirement incomes for today's workers than the workers expect. Traditional "gold watch" pensions usually reward the long-term worker quite well, but today's workers are more likely to change jobs during their working lives than in the past, which reduces benefits under these plans. Also, stagnant incomes have made it far more difficult for workers to save than in the past. Retirees of today draw 40% of their current income, on average, from savings, not from Social Security or a company pension.

More and more companies are dropping the traditional pension plans altogether in favor of defined-contribution plans. In these plans, which include 401(k) plans, the worker or company puts in a specific amount of money each pay period, which is invested as the worker wishes. While these plans have the advantage of favorable tax treatment and portability from one job to another, the worker bears all investment risk. If the investments do not do well, if the worker doesn't save enough, if the money runs out before the retiree dies, the company bears no responsibility. These plans clearly are the market choice. The investment risks of the traditional plans are causing many employers, especially small ones, to drop traditional pensions and offer only defined-contribution plans.

Other benefits, such as health benefits, are changing as well. Many Americans who relied on health benefits given as part of their retirement package are disillusioned and angry, *The Wall Street Journal* reports. The former employers, "faced with exploding health costs, are reducing or

eliminating retiree benefits considered sacrosanct a few years ago." One employer is even suing its retirees in an effort to avoid paying the benefits.

Many workers will be affected. The William M. Mercer consulting firm reported recently that nearly half of the employers it surveyed had asked retirees to pay more of their medical-insurance premiums. A similarly large percentage had increased deductibles or co-payments. Nine percent had eliminated benefits for future retirees. Unisys Corporation is among the companies that intend to stop paying for any medical benefits for both current and future retirees.

In part, companies are cutting retirement benefits because the population of the country is aging. When a large percentage of people are retired, it is hard for those who are still working to provide them with a full range of benefits. This statistical dilemma has led a number of commentators to declare that the Social Security system will collapse when the baby boomers start to retire.

Two economists, however, argue in a new book that the problem has been overstated. In *Misused Statistics*, A. J. Jaffe and Herbert F. Spierer dissent from the view that tomorrow's working people will have an insupportable Social Security tax burden because of increasing numbers of elderly. As the population ages, they say, the percentage of children goes down. The number of dependents thus remains roughly the same, and the burden of supporting the elderly is lightened.

Implications:

- ✓ The General Assembly may want to assess independently the adequacy of present funding of KERS and SPRS.
- ✓ As a provider of last-resort social and medical services for those in poverty, the General Assembly may want to evaluate how it can best plan for future needs and reduce future disruptions which may result from underfunding of pension plans.
- ✓ The technical details of pension fund management have major long-term policy implications
- ✓ Much of the policy debate over public pension funds rests on assumptions about intergenerational equity, which is likely to come to the forefront of the debate. Decisions about intergenerational equity largely determine the overall structure of public pension fund management.
- ✓ The important question for society might not be how to pay for an increasing number of retirees, but how income transfer mechanisms should be adjusted to reflect the changing age distribution of dependents.
- ✓ Though the economy may be able to accommodate the support of an increasing number of elderly citizens, political opposition may be intense. Most assistance to those under age 20

is delivered by parents, within the family setting, while most assistance to retirees is delivered by institutions. The working-age population may oppose an increase in governmental capture of their resources, even though their net economic position, as a group, may be little changed.

High-Tech in the Workplace

Trend: **Computers and computer-based technologies are automating white collar work, creating efficiencies as well as large shifts in the work force. Some warn that the information technologies which offer so many educational and personal advantages will worsen working conditions for many. Inappropriate and excessive uses of technologies raise public and corporate concerns.**

Background: Information technologies continue to change the way information is gathered, analyzed, routed, prepared and used. The new equipment or software often promises to increase work efficiency many times, lowering costs. A relatively new process called "work flow automation" helps oversee and rationalize information flows through an organization. Since by one estimate the gathering and transferring of paper documents makes up as much as 90% of the time needed to finish typical office tasks, this automatic routing can save time, money, and headaches. Internet, a collection of computer networks which originally was developed for academic research purposes, is growing dramatically as government and corporate offices tie in. Through Internet, users can access data bases and library holdings around the world from their own computer.

Vary T. Coates, in an article for the *Annals of the American Academy of Political and Social Scientists*, notes that "The concept of the information age carries with it some paradoxes." Coates foresees that the economies which produce information technology and services can expect to enter a sustained period of robust expansion, and he agrees with enthusiasts that there is a nearly insatiable demand for information technology. Yet he also sees this causing a constraint on growth in white-collar employment and, in the long term, a possible decline. Indeed, there seems some consensus that many of today's teachers, secretaries, managers and other workers will be replaced by the spread and development in information technology. Like earlier forms of automation, office automation should eventually require fewer people to do the same amount of work, and it can be expected to simplify routine activities. This at least is generally believed, although, to mention another of Vary Coate's paradoxes, "it is hard to find empirical evidence as yet that information technology has made individual corporations more productive." Marvin Harris finds that many of the new jobs created using information technology are deficient in personalized and motivated relationships, which can lead to a decline in quality of services and information. In a similar vein, Peter Shaw, of the National Council on the Humanities, claims that computerization is decreasing the need for education for many low and mid-level jobs at the same time that it is reducing the need for a large number of innovators at the top.

What will happen to the people displaced by the latest wave of automation, assuming large displacements are occurring or are soon to occur? One vision is a future like that in Kurt Vonnegut's novel *Player Piano*. In this disutopian novel, Vonnegut describes a political economy that is quite adept at producing goods which, since labor is largely unnecessary, fewer and fewer

persons are able to purchase. Moreover, displaced labor is highly skilled and willing to work, yet machines have made their skills redundant and their hopes for employment illusory.

More optimistic authors foresee new enterprises and whole new industries unleashed by information technology. Lewis Perelman, in his book *School's Out*, sees moribund schools replaced by a commercial "hyperlearning" industry worth billions. He envisions much less emphasis on formal education and academic degrees, but his alternative is a flexibly-trained population and workforce. *The Economist* predicts that new technology and more international competition will eventually create more jobs than they destroy, as earlier cycles of innovation have done for the past two centuries. William Halal, writing in the *Futurist*, predicts increases in telecommuting, and working at home. As education, shopping, work and other activities are brought home, the home could even recover its traditional role as a center of production.

Questions regarding the proper uses of technology continue to be raised in various contexts. Wendell Berry, in one essay in his book, *What are People For?*, expresses the belief that computers, while they may let a writer increase output, do not increase quality. He argues for standards to guide a person or organization to adopt or reject any new technology. Toyota recently reported that it is scrapping many of its latest automation processes in Japan. The company's production engineers found that the last phase of automation drastically increased costs with no commensurate increase in quality or productivity.

The possibility of too much high tech also is a hotly debated issue in health care. A study conducted at the H. Lee Moffitt Cancer Center and Research Institute in Tampa, Florida, found that life-prolonging treatment for critically ill cancer patients costs a fortune but buys little extra survival time. In the Netherlands, moves to legalize physician-assisted euthanasia are reported to be widely supported by the population, as a defense against the increasing weight of medical technology, which often is used to extend life but in a condition that is no life.

Implications:

- ✓ Evaluating the benefits of high-tech intensive medical treatments is likely to remain an important health care issue,
- ✓ We need to begin to assess critically and thoroughly the fundamental assumptions and values that guide the technological treadmill.
- ✓ Implementation of technology as an end in itself may lead to greater waste and inefficiencies, particularly if underlying processes and assumptions are not evaluated prior to implementation.
- ✓ Prudent implementation of information technologies can lead to an explosion of educational opportunities. Simply applying these technologies to an existing educational framework may greatly limit its possibilities.
- ✓ To facilitate the distribution and availability of state government information, efforts to require agencies to maintain their generated data on an Internet site may develop.

- ✓ The capabilities of Internet may prove to be advantageous to Kentucky's school system. This benefit would involve addressing both the technical capabilities of the computer system, and the appropriate training of the educators.
- ✓ Work flow software could help automate many government offices.
- ✓ Are the economic development programs of the 1990s in tune with technological advances that will prevail in the next decade?
- ✓ What facilities are needed to make the students of the next decade part of the Information Technology revolution?
- ✓ If future employment is to be service-oriented, and if less training will be required for the next generation's workers, has Kentucky finally backed into a situation where the state might exploit past deficiencies and change them into future possibilities?
- ✓ The Hyperlearning revolution must be recognized by policy makers, as well as those in the private sector who benefit from its commercialization.
- ✓ Should the Long-Term Policy Research Center examine the social costs of technological progress?

Computers and Privacy

Trend: The expanded use of computers and electronic communications are raising questions of privacy.

Background: Many American businesses are wired for computers, and most systems have some capacity for sending and receiving electronic mail. Workers who communicate through computers may not realize how little privacy they have. Retrieving e-mail for use in court has become a popular ploy for lawyers, particularly in California's silicon valley, where e-mail has been used for years. Courts treat electronic messages the same way they treat letters and memos, but people are generally more frank when they are communicating by e-mail than when they are writing. And "deleted" e-mail can often be recovered. The instruction to delete usually amounts to nothing more than giving a computer permission to overwrite a message at some later time. On a large system, messages might not actually be destroyed for years, and programmers can easily retrieve them. E-mail is also vulnerable to tampering; on some computer systems the time and date of a message can easily be falsified.

Electronic snooping is widespread. During the 1992 presidential campaign, it came to light that U.S. foreign service officers were routinely listening in on the telephone conversations of their superiors. Detailed credit information on campaign workers was obtained for political rather than legitimate commercial reasons. In Canada, a recent referendum was defeated by the publicizing of an illegally intercepted call on a cordless phone. Then-Prime Minister Brian Mulroney's comment was, " In a technologically advanced age, I cannot think of a more lethal threat to civil liberty than electronic snooping." *New York Times* columnist William Safire says that secret taping should be stopped. He calls for state and federal legislation to forbid any recording of phone or computer transmissions when either party is unaware of being taped.

The increasingly sophisticated use of computerized public records, like driver's license records, for marketing purposes has led several states to restrict access to these by direct mail marketers. Iowa is moving towards at least a pilot project by 1995, using a "Governmental Services Card," a single card with a chip that a citizen can use for any governmental identification purpose. This card can replace a driver's license, library card, hunting or fishing license and university ID card, and allow electronic funds transfers to pay taxes or receive state payments. These developments promise increased convenience and efficiency, but raise privacy and ownership issues.

Implications:

- ✓ Laws have not kept up with technology. Electronic machines can do things that are not contemplated in state or federal legislation.
- ✓ The intrusion of electronic technology into business and private lives may already be so complete that we must inevitably accept a reduction in privacy.
- ✓ Public debate on privacy issues is likely to intensify.

Seed Money

Trend: Governments and philanthropists are finding that a little money, used correctly, can do a great deal of good.

Background: Lives can be changed and businesses can prosper if a small dose of help is given at the right time. In Booneville, Kentucky, low-income people have been starting their own businesses and becoming financially independent with the help of loans from a nonprofit organization called Workers of Rural Kentucky (WORK). The Booneville program, which was featured in *The Wall Street Journal*, is one of about 200 in 41 states that offer such assistance. Most programs are aimed at low-income women, who are the prime recipients of welfare. The businesses "haven't made anybody rich," but they "have transformed the lives of those involved with them," the article said.

Ten years ago, there were only two such operations in the nation. Since then, a number of well-known nonprofit organizations have begun funding and monitoring efforts like these. A recent Rockefeller Foundation study of self-employment programs found that it is too early to evaluate their economic impact, but that they have sharply improved the self-confidence, self-esteem, and abilities of the participants.

A program called Cleveland Works is helping people in that Ohio city get off welfare. As described by *State Legislatures*, the program gives welfare recipients the support they need to find and keep full-time jobs with health benefits. It includes extensive job training, legal advice, and child care, and it puts heavier demands on the participants than some similar programs. Tardiness is not tolerated, and students must be well groomed and neatly dressed at all times. The training is rigorous, including math and English, typing, and office skills. So far, 80 percent of those enrolling have finished the program and gone on to full-time employment, with an average starting wage of \$6.50 an hour. Of that number 80 percent stay employed and off welfare. Counting children, about 6,000 people have benefited from the program so far. David Roth, the executive director, says the effort has generated three dollars in welfare savings for every dollar it has cost. That doesn't count the benefit of having thousands more self-supporting citizens stimulating the economy.

New York state is encouraging small businesses to stay in the state by offering them seed money to hire consultants. The five-year-old Industrial Effectiveness Program is budgeted at only \$2.5 million a year and has helped 337 small manufacturers since 1988. The program is designed to enable businesses to hire specialists who can show them how to increase productivity. Typically, the state picks up a third of the bill for the consultant and helps with implementation of changes.

Implications:

- ✓ The way to break the cycle of poverty might be to encourage the sense of pride and self-worth that these seed grants can offer.
- ✓ Combinations of individuals and government ("private/public leveraging") might do a lot to help people and businesses become self-sufficient. Private startup grants, for example, coupled with government help in cutting regulatory red tape, could bring success to a lot of enterprises without using much money.

Workers' Compensation

Trend: Soaring workers' compensation costs are causing some states to try new approaches.

Background: In many states, there is a revolt against rising workers' compensation rates. Nationally, the costs have risen from \$22.8 to \$62 billion in the past decade, according to a *Reader's Digest* article. Much of the cost was blamed on fraud.

The *Kiplinger Washington Letter* recently gave a similar report, saying runaway medical bills represent 40 percent of the cost. Legal battling and fraud also were blamed. The letter cited costs as high as \$95 for every \$100 in payroll for employees who paint television towers in New Hampshire. Payments for mental stress and repetitive motion injuries also were reported soaring.

However, Oregon has been able to reduce premiums by 30 percent in the past three years. The cut is attributed to the use of surveillance units to deter fraud, a limit on lawyers' fees, and a requirement that claimants use managed-care doctors. Several other states, including Texas, Iowa, Wisconsin, Illinois, Indiana, and Michigan, were said to have made good progress through promoting safety in the workplace, streamlined appeals, and other steps toward speedy resolution of disputes.

Some employers are combining workers' compensation and health insurance. In California, an employee leasing company challenged the state's Labor Standards Division over the issue. The company defied an order to procure workers' comp insurance and instead combined its workers' comp program with its health insurance plan, to provide coverage both on and off the job--at a cost lower than the state's workers' comp rates. The company claimed this action was legal under the federal Employee Retirement Income Security Act of 1974 (ERISA). Meanwhile, California has launched a pilot program that allows five companies to merge health and workers' comp programs.

Employers in Oklahoma, Texas, and New Mexico have adopted programs similar to the one adopted by the California leasing firm, but some have failed under the weight of injury costs.

Implications:

- ✓ If unchecked, workers' comp rates will continue to increase dramatically. The *Kiplinger Washington Letter* says they will probably double between 1992 and 2000.
- ✓ The federal government will probably not come to the rescue in this matter. It is primarily a state issue.
- ✓ Workers' comp fraud may emerge as a bigger issue.

Working Women

Trend: Women are making gains in pay relative to men, and American attitudes toward working women are changing.

Background: Women made substantial gains in pay compared to men during the 1980s, according to a *New York Times* report. The median annual salary for men fell by eight percent, allowing for inflation, during the decade. Comparable salaries for women rose by ten percent.

The number of cents women earn for each dollar of men's earnings rose from 60 cents to a record 72 cents in 1990. The gain for younger women, and for women with higher levels of education and experience, has been even greater, according to several recent studies by economists.

Women have become very successful entrepreneurs. According to an article in the *Lexington-Herald*, while 80% of all new businesses fail within a few years, 80% of woman-owned businesses are successful. And while more women are starting businesses every year, 40% of all women business owners have now been in business at least 12 years. These facts, presented by a visiting consultant, Grace McGartland, indicate a solid presence of women in business. According to Ms. McGartland, women owners "aren't looking for start-up money these days. They're looking for growth and expansion money."

The unemployment rate for women in recent years has been consistently lower than that for men. Part of that effect was attributed to the fact that huge numbers of male blue-collar workers have lost their jobs, while employment has been stable or growing in the service jobs that still employ the majority of women.

American attitudes toward women have changed dramatically since 1977, says an article in *American Demographics*. Even the most conservative Americans now are likely to say that women can balance a career and motherhood, and that a woman's career is not less important than her husband's.

The most affluent Americans--those with a college education--were said to hold the most liberal views. The oldest and least-educated Americans were found to hold the most conservative views.

Implications:

- ✓ Greater earning potential might in time reduce the "inevitability" of poverty for female-headed families.
- ✓ Better opportunities to earn money might encourage families to stress education and training for young women as much as they do for young men.

- ✓ Businesses may re-evaluate advertising that pictures women in traditional roles. Images of independent, self-reliant women have appeal in all markets.
- ✓ The fact that women still make less than men for comparable work will continue to be an issue.
- ✓ Women's success in business should, with some time lag, translate into noticeable increases in female leaders in business fields.

Streamlining Government

Trend: Government agencies are streamlining operations and in some cases reducing their work forces. Principles of Total Quality Management are spreading beyond Corporate America into classrooms, law firms, and government offices, as agencies stress client-focused quality.

Background: Government agencies increasingly are being asked to prove their value and to do more with less. Fiscal constraints, of course, lead the list of reasons for this shift. But the national mood for change and efficiency in government also has had its impact.

Proposals to "reinvent" government have emerged at the national level, in the report of the National Performance Review led by Vice-President Gore, and in several states, including Kentucky. The Governor's Commission on Quality and Efficiency has drafted over 200 recommendations for Kentucky state government, including strategic planning tied to a performance-based budgeting process, and significant revisions in the state personnel system, such as job reengineering and reduction in the number of management layers. The Texas legislature has instituted an ambitious program of tying state appropriations to the accomplishment of program outcomes.

Legislative staff agencies have not escaped these pressures. California voters approved Proposition 140 in 1990, mandating a 40 percent reduction in the budget of the California legislature. While few other legislatures have significantly decreased their workforce, salary freezes, hiring freezes and other cost-curbing measures have become more common. A recent NCSL survey revealed a more fundamental trend in legislative staffing: Staff directors in 26 states reported they have undertaken "a significant re-examination " of their operations. Teamwork, improved communication, staff involvement and the delegation of responsibility are said to be common threads in the new approach to legislative staffing.

Total Quality Management - known as TQM - has swept through U.S. corporations in recent years, and is finding some applications in government and academia as well. The Wall Street Journal reports that some law firms and universities are adopting the principles of TQM in their operations, often under pressure from their corporate clients. While many legislative agencies have rejected TQM as inappropriate for their operations, the Maine Legislative Council is developing an operational plan based on these principles, responding to a near unanimous resolution from the Legislature. The main tenet of TQM is to learn what your customers need, and constantly improve your processes to deliver it consistently. In their book *Reinventing Government*, David Osborne and Ted Gaebler assert, however, that TQM cannot be applied to governments without refinements that recognize that governments are driven by elections rather than the profit motive, are financed primarily by taxes, and are usually monopolies. They propose changes in the basic incentives that drive public institutions, in order to produce new, entrepreneurial governments.

Where tight budgets meet growing work demands, creative solutions are needed. In Texas, legislators demanded uniform regions for state government, so they could track where state dollars go and how they are spent. The state comptroller's office said 36 agencies used 69 different regional configurations, making it nearly impossible to track revenue and expenditure data. State utility regulatory agencies are increasingly challenged by the complexity of communications issues, due to rapidly changing technology, services, and competition. Georgia and Connecticut employ consultants to help. Iowa tries to hire employees with a combination of professional skills, so they can handle the broad range of issues, but finds this hard within prescribed salary limits. Both New York and Tennessee lengthened their rate review cycles for communications utilities to lighten workloads.

Implications:

- ✓ The problem of hiring qualified employees in state government may not be limited to utility oversight agencies
- ✓ Many argue that the tenets of TQM are not new, but that in both the private and public sector, layers of bureaucracy and years of habit have removed and insulated workers from their ultimate objective of satisfying customers. Public dissatisfaction with government and chronic fiscal constraints may cause this to change.
- ✓ All agencies of Kentucky state government, including the legislative staff, are likely to continue to experience financial restrictions because of the tight state budget.
- ✓ With agreement on program goals and appropriate outcome measures, performance-based budgeting may strengthen client services and the legislature's capacity to oversee program performance.

Maintaining Community

Trend: Faced with the seemingly intractable problems of a persistent underclass, destructive social behaviors, ethnic and class divisions and citizen apathy, some call for renewed focus on fundamental values and structures.

Background: Twenty-five years ago, the Kerner Commission issued its scathing report on the urban riots of the 1960s. The commission blamed the ghetto riots on white racism, which it said caused the racial isolation, inferior education and limited economic opportunity of African-Americans. Much has changed since then, and many of the commission's recommended reforms have been adopted. Employment opportunities, education and income have improved markedly for African-Americans as a whole. Yet it is arguable that conditions in some big city neighborhoods are worse now than in the late 1960s. Glenn Loury, writing in the *Wall Street Journal*, argues that the essential problems of today's urban ghettos are the ingrained patterns of destructive social behavior involving criminality, unwed childbearing, low academic achievement, drug use, and gratuitous violence, which destroy a person's ability to seize existing opportunity. Accepting that these are not the kinds of problems government can handle, he calls for strengthening the sources of moral and cultural authority in these communities. He says spiritual issues must be at the core of effective change, and human behavior must be seen as central, not as just the result of economic conditions.

Social problems are not confined to the urban ghettos. Immigration and the resettlement of refugees in the United States creates stresses which are likely to continue. Wars, ethnic and civil strife within nations, and widespread environmental degradation have combined to create the largest number of official refugees, over 18 million, ever tallied by the United Nations. A much larger number of displaced people do not meet the official criteria to be called refugees. This situation creates tremendous pressure on the industrialized nations to absorb or assist growing numbers of desperate and displaced persons. In response to the flood of immigrants, nationalist and anti-immigration movements have appeared or grown in many countries.

Mickey Kaus, writing on a different social concern in the *Washington Monthly*, suggests that Americans are far less concerned with economic inequality than with increasing class segregation. The wealthiest Americans are "seceding" into separate suburbs, where they rarely even meet members of non-wealthy classes. He proposes initiatives to create more institutions which are shared by people of all classes, to prevent money inequality from translating into social inequality. His proposals, which he calls the "civic liberal alternative," include reinstating the draft, or a mandatory year of civilian service, where youth perform in such roles as teachers' aides and police aides; instituting universal health insurance; and creating communal and work-place day care centers. The purpose of these initiatives would be to create institutions where people from different walks of life meet, and where public obligations apply equally to all, regardless of income.

Educators in many parts of the country have begun to require some form of public or community service of students as part of their high school or college curriculum. While this has

been mandated by individual colleges, schools or school districts in the past, Maryland is the first to adopt a statewide requirement, beginning in the Fall of 1993. To graduate, all students must perform at least 75 hours of community service during high school.

Telecommunications may be eroding the common experiences of our culture. Computers and other high-tech gadgets are here to stay, and their effect on our society will be profound. George Gilder, in a book called *Life After Television*, argues that the television age is already giving way to the computer age, and that this change will inevitably affect our view of the world and the community. Television, he asserts, has defined the national experience and consciousness more than any other force in America. But it has so far been limited to one-way news and entertainment. It has not been able to cater to widely divergent special interests. It has had to appeal instead to the masses.

Gilder's book says the telecomputer's impact on American culture will be just as significant as television's has been. Telecomputers already can do anything today's television can do, but they also have interactive powers. Rather than exalting mass culture, telecomputers may enhance individualism. Moreover, they promote creativity rather than passivity. Gilder believes telecomputers will serve to further the cause of democracy.

Implications:

- ✓ The belief in equal opportunity is central to American's self-image. Creating or revitalizing civic institutions might help eliminate barriers between classes and ethnic groups, and help preserve equal opportunity.
- ✓ Kentucky ranks at or near the bottom in its percentage of women legislators. Also, Kentucky has a poor voter turnout rate for state offices
- ✓ Ethics legislation may force candidates to look to citizens for campaign finances, so campaign donations may well be spread more equitably between incumbents and challengers, bringing more new faces into the arena.
- ✓ The "motor voter" bill may increase voter participation by making registration more convenient.
- ✓ The assumption that we understand the complexities of human behavior to such a degree that we can simply "engineer" it toward its proper expression is likely to be found false.
- ✓ It is important to recognize the role of individual choice and responsibility in dealing with destructive behaviors, and the place of church, family, and other moral leadership in teaching virtuous behavior. It is also vital to recognize the importance of economic conditions and public policies in structuring environments which influence behaviors and outcomes. The responsibilities of both the individual and the society may need to be addressed.

- ✓ Not everyone agrees that the telecomputer's effect will be positive. Historian Arthur Schlesinger, Jr., in his 1992 book *The Disuniting of America*, concluded that the American people already have become more heterogeneous in recent times, and that this "makes the quest for unifying ideals and a common culture all the more urgent." Professor E. J. Hirsch argued in another recent book, *Cultural Literacy*, that American education has been failing to impart the body of common knowledge that a nation needs if it is to have shared ideals and a unified culture.

Electricity

Trend: Electric service as we know it is being transformed, in response to competition, conservation opportunities, and environmental concerns.

Background: Radical change is predicted for the electric industry, as power markets are opened to competition. The 1992 Energy Policy Act will oblige existing companies to make their transmission grids available to competitors with low-cost power but no grids of their own. Large industrial users want state utilities commissions to let them shop for power, too - bypassing the local utility. The pace of change, according to an article in the *Economist*, will depend largely on whether utilities grasp the opportunity to compete for business on the basis of power cost, and whether state regulators encourage or hamper the process. Some utilities, including Kentucky's largest companies, have set up unregulated subsidiaries to build power plants and sell electricity to other companies outside their traditional service area.

Some utilities also are experimenting with new ways of providing electric service, often aided by state regulators. Rather than building new generating plants to increase their power sales, they are earning a return on investments in efficient customer equipment, such as highly-efficient motors or lighting.

The Kentucky Public Service Commission recently approved a plan by Louisville Gas and Electric to weatherize homes of low-income customers, establish a low-income inclining block rate for high-use customers, and a commercial energy audit program.

Some analysts fear that increased price competition will endanger such programs, termed demand side management, since, at least in the short run, they raise the cost of a kilowatt of electricity above the simple cost of selling power. Yet, even as new competitive strategies of independent power producers might constrain environmental and conservation programs conducted at ratepayer cost, utilities and their more flexible affiliates are moving into these technologies in other ways. The giant American Electric Power Co. is financing development of a new, low-energy light bulb with the potential to cut sharply into energy consumption. A consortium of 24 electric utilities offered a \$30 million award to the manufacturer with the best super-efficient CFC-free refrigerator. The contract, recently awarded to Whirlpool, will be paid on a per-unit basis as the refrigerators are sold in the participating utility's service territories. The hope is that this approach will lower the cost and speed commercial acceptance of the new product. Through the industry-funded Electric Power Research Institute (EPRI), utilities are financing improvements in electric cars and demonstrations of their use, research on biomass, and photovoltaic developments, typically in partnership with government agencies or private companies.

Electric utilities are not the only businesses investing in conservation. Wal-Mart has developed a prototype store plan which will use only half the energy of a typical Wal-Mart and feature solar-electric signs and lighting. Adolph Coors Company recently purchased a photovoltaic technology company. Several computer manufacturers have joined with the federal

EPA in an initiative called "Energy Star," to increase the market share of energy-efficient computers. Some timber workers in Washington are being retrained as energy conservation specialists, because labor experts predict that demand for individuals in the energy conservation field will flourish during the next decade.

Electric generation from biomass could hold opportunity for Kentucky farmers. While current biomass projects depend mainly on wood industry waste, greater production will require crops grown for that purpose, creating new cash crops, such as switchgrass. Experts at the U.S. Department of Energy and the Electric Power Research Institute (EPRI) believe biomass could become a significant energy resource by 2010.

EPRI is proposing turning 50 million acres of cropland now sitting idle under the federal subsidy programs (the Conservation Reserve Program and the Acreage Reduction Program) into productive energy farms.

Finally, after decades of selling power from large generating plants to dispersed customers, utilities have begun to experiment with on-site power service. Idaho Power Company now will design, install and maintain photovoltaic systems for customers in locations remote from existing power lines. The fixed monthly service fees are designed to recover all capital and operating costs over 10 years. Small-scale, dispersed electrical systems, such as rooftop solar voltaic panels, are still cost competitive only in remote locations, but technology could shift competitive advantages quickly. Currently, development work is being conducted on a new solar electric material with a much higher theoretical efficiency than current photovoltaic cells. If it meets expectations, arrays made with the new material could produce electricity at a fraction of current central station generation costs. Not surprisingly, the utility industry, through EPRI, is part of the development team.

Implications:

- ✓ Cheap, efficient solar cells could transform the electric industry by shifting most electricity production to the point of consumption, and by making electricity affordable across the world. The market for electricity-consuming products would expand.
- ✓ Involving utilities in solar or renewable systems is one way to expand the market, since the user can avoid high initial capital costs and the risks or headaches of selecting the right system and maintaining it.
- ✓ Utility operation of dispersed, small-scale systems in more remote locations would make it unnecessary to extend utility lines and would hasten commercialization of dependable systems.
- ✓ Energy conservation initiatives in Kentucky could help replace jobs being lost in traditional industries. Training programs should be considered
- ✓ Renewable energy developments could negatively affect coal markets, but increased use of electric vehicles could increase utility coal consumption.

- ✓ Biomass development could create a significant new agricultural market for Kentucky.
- ✓ Competition will tend to equalize prices between companies and regions. High-cost producers may find they cannot sell their power. Coal-fired generating stations typically are quite competitive, and this region's utilities could increase exports to high-rate areas.
- ✓ Legislative changes have given electric utilities greater flexibility to compete through unregulated sister subsidiaries of a holding company. There is some danger that the new freedom could lead to excesses like those before the Great Depression, and that companies will try to subsidize or bail out speculative ventures through utility rate increases. Regulators will need to be very watchful.
- ✓ Eventually, electric customers may "shop around" for their power purchases the way customers of long-distance phone companies do today.

Railroads

Trend: **Passenger trains are enjoying a return to popularity, and new ways to ship freight by rail are being found.**

Background: After years of decline, rail passenger travel is making a comeback. Despite the reduction in federal support during the Reagan-Bush years, *The Utne Reader* reports, ridership increased from 16 to 22 million between 1971 and 1991.

The National Association of Rail Passengers reported that an estimated 200,000 passengers had to stand on Amtrak trains last year. Sleeping cars on some trains were booked solid for ten months in advance.

The new administration has plans to build high-speed rail infrastructure. Amtrak's fastest route, from Washington to New York, captures 42 percent of the market, more than any airline.

Meanwhile, the use of rail-truck combinations for shipping, also known as intermodal transportation, is growing. *The Wall Street Journal* reports that Pennsylvania lawmakers recently authorized up to \$34 million "to help build what transportation planners are promoting as the truck routes of the future." These efforts are aimed at modifying the state's rail system to accommodate trains with double-stacked containers. "By stacking containers two high on low-slung rail cars," the *Journal* reports, "railroads can move freight long distances at savings of as much as 30 percent, compared with over-the-road trucking."

Trucking companies are investing in containers that can be used on the highways or double-stacked on rail. Smoother-riding rail cars and a shortage of truck drivers are making the use of rail transportation more attractive.

Implications:

- ✓ Expanded rail transportation can ease highway and airway congestion. It might also cut energy use and air pollution.
- ✓ If passenger trains keep gaining popularity, Kentucky travelers might once again be served by a network of railroads.
- ✓ Intermodal transportation is currently competitive only at distances greater than 800 miles. Experimental methods, however, might make this method profitable at smaller distances. CSX Corporation plans to test a new system that avoids the need for expensive terminals, cranes and reinforced containers: trucks will drive on and off an "Iron Highway," which will consist of a continuous platform on wheels rather than detachable rail cars.

Electric and Ultralight Vehicles

Trend: **The debate over electric cars intensifies.**

Background: Electric vehicles have their strong supporters and detractors. A new study by the U.S. Department of Energy and the Electric Power Research Institute finds that electric cars, in addition to their contribution to this country's energy independence, can significantly reduce air emissions in cities. Not only do they produce no direct emissions, but, since they use no energy while idling in city traffic, they are considerably more energy-efficient than conventional vehicles. The emissions are produced at power plants, where they are better controlled and where they can do less harm to the air of a city.

According to the study, electric vehicles contribute less to greenhouse gases than conventional vehicles, given the present fuel mix for electric generation, and the current lead batteries are almost totally recycled. California and several other states will require zero-emission vehicles to make up two percent of all new car sales by 1998, and electric vehicles are touted as the only zero-emissions vehicles available.

The 1992 Energy Policy Act requires states to begin including some alternate fuel vehicles in their fleet purchasing in 1995, increasing to 75% after 2000. This category includes electric vehicles, along with vehicles powered by natural gas, propane, LP, and hydrogen. The Act also authorizes numerous research, development and demonstration programs to foster commercial application of alternative vehicles, particularly electric vehicles.

Those who weigh in on the other side of the debate include Amory Lovins, a nationally-known expert on alternative energy sources. In a letter published in *The Electricity Journal*, he strongly criticizes the promotion of electric cars as zero-emissions vehicles. Instead, he calls them "emissions elsewhere" cars, because, while they emit no exhaust, they use power produced by polluting central power plants.

One of the factors that make pure electric cars impractical, Lovins says, is the heavy weight of the required batteries. He asserts that a much better prospect is offered by hybrid vehicles that are driven wholly or mostly by electricity, but manufacture the power on board, as needed, by burning any convenient fuel in a tiny engine, gas turbine, or fuel cell. A small storage device recovers excess energy to power hill-climbing and acceleration.

Such cars, he says, cut the weight of the power system by more than 75 percent, and drive further, last longer, and cost less than the pure electrics. The technology can be adapted even to very large vehicles. Clean-burning alternative fuels, including hydrogen, can be used.

Implications:

- ✓ Clean air laws may encourage the use of electric vehicles nationwide and worldwide.
- ✓ The question of battery disposal will continue to be raised by those who oppose electric cars.
- ✓ Even with new technology, the idea that everyone should have unlimited access to personal transportation may be impractical.
- ✓ Producing electricity for vehicles could mean a new market for Kentucky coal.
- ✓ States that take advantage of available federal demonstration funds may become leaders in this field.