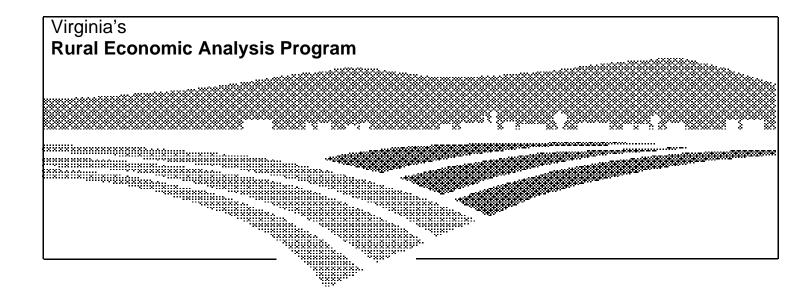
RURAL VIRGINIA: PROVIDING for the FUTURE through CHANGING POLICY

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BACKGROUND

As the Commonwealth anticipates a new century, many areas of rural Virginia are being left behind. The symptoms are numerous. Rural median income in Virginia is \$7,000 below urban median income; unemployment is 6.7 percent compared to 3.9 percent in urban areas; and rural citizens are more poorly educated (31 percent of persons over 18 are not high school graduates compared to 20 percent in urban areas). With rural poverty rates almost double those in urban areas (15.3 percent versus 8.7 percent), recent changes in federal and state welfare programs may further exacerbate rural problems. Yet, the 1.47 million rural Virginians own and manage 63 percent of the land and resource base of the state.

Federal policy is moving towards a stronger role for state and local governments, but leaders in some rural areas are unable or reluctant to address the problems in their communities. Part of the problem is the capacity to address critical issues, and part is the local will to do so. *Because of the diverse makeup of rural communities, sustained rural development that improves the quality of life will only be realized when local capacity to solve problems and to plan for rural development is created. A state rural development policy should be designed to achieve this goal.*

Furthermore, because of the diversity of the communities and their problems, policies at the state and federal levels have the potential to affect communities in different ways. A new policy for Virginia must recognize rural diversity and build upon the base of knowledge about how rural economies develop. Both rural and urban Virginians stand to gain from a policy that benefits rural areas, since rural dwellers are the stewards of the state's land resources, and urban residents are directly affected by the quality of this stewardship.

A central focus of a rural development strategy should continue to be job creation and economic competitiveness and growth, but the vision should be broad enough to include other means of improving the quality of life. Research at Virginia Tech shows that citizens and local development staff in Virginia place a higher value on an industry's commitment to the community, the quality of its jobs, and environmental compatibility than they do on the number of jobs created through an economic development program (Cox, Bailey). There is evidence that the most consistent explanation of successful development depends on factors as difficult to identify as "sense of community," "entrepreneurial spirit," and "local leadership" (Flora and Flora). These findings suggest that it is important to avoid policies and programs that prescribe the same approaches or solutions for all communities.

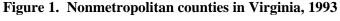
This paper contains a proposal for a state policy for Virginia's rural areas. The policy should contain two major thrusts. First, it is imperative that an environment be created whereby communities can effectively address the problems they face. Second, specific assistance to rural localities should be provided where necessary.

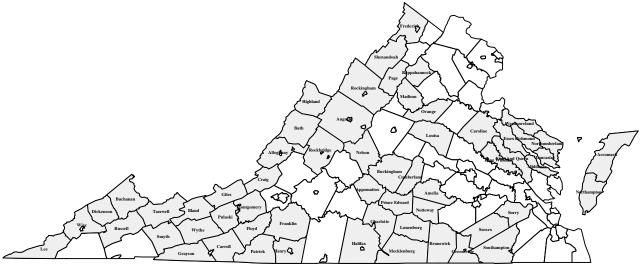
CHARACTERISTICS OF RURAL VIRGINIA

Of Virginia's 135 local jurisdictions (counties and cities), 59 are in nonmetropolitan¹ (nonmetro) areas of the state and have 22 percent of the state's population (Figure 1). This rural or nonmetro

¹ Metropolitan (metro) is (a) a municipality of 50,000 or more people, or (b) an urbanized area of 50,000 or more people, regardless of the size of the largest city, so long as the metro area as whole would have at least 100,000 people. Adjoining counties are added to the central county or counties so long as they meet certain tests of "metropolitan character" and workers commuting exchange with the central counties. Nonmetropolitan (nonmetro) is all counties not meeting the definition of metro (Beale).

population manages 63 percent of the land area of the state and the associated natural resource base. This area provides the foundations for Virginia's vaunted natural beauty and splendor, as well as its safe drinking water and clean air.





Lee, Wise, Dickenson, Buchanan, Tazewell, Russell, Smyth, Wythe, Bland, Giles, Pulaski, Grayson, Carroll, Patrick, Floyd, Montgomery, Franklin, Henry, Craig, Alleghany, Bath, Highland, Rockbridge, Augusta, Rockingham, Shenandoah, Frederick, Page, Rappahannock, Madison, Orange, Louisa, Nelson, Buckingham, Appomattox, Cumberland, Prince Edward, Charlotte, Halifax, Mecklenburg, Lunenburg, Nottoway, Caroline, King and Queen, King William, Essex, Richmond, Westmoreland, Northumberland, Lancaster, Middlesex, Amelia, Brunswick, Greensville, Southampton, Sussex, Surrey, Northampton, Accomack.

In the past, characterizing the economic and social conditions of rural Virginians was relatively easy because most of them were in some way tied to farming and production agriculture, with people in a few counties engaged in mining. Rural policy was, thus, closely related to agricultural policy. Farming's dominance as a source of employment and income has fallen dramatically in the past 50 years, however, and would be an inaccurate characterization of the economy of rural Virginia today. "Agriculture," which includes farming and all the processing, inputs, employment, and services (agribusinesses), related to farming, is much broader than "farming." Directly and indirectly, agriculture accounts for approximately 11 percent of the state's economy and 14 percent of the state's jobs. It accounts for more than 20 percent of labor and proprietor income in only Cumberland and Highland counties (Johnson and Wade). It is, of course, important in the livelihood of about 43,000 Virginia farm families and those people supplying inputs and services to these farm businesses. The dominant economic force in rural Virginia today is actually manufacturing, with some 21 rural counties dependent on a variety of manufacturing activities for over 20 percent of labor and proprietor income.

Many economic forces besides manufacturing and farming influence the lives of rural people and rural places in Virginia. Virginia has nonmetro counties that are classified as economically dependent on farming, mining, manufacturing, government employment, services, and non-specialized (those nonmetro counties not fitting one of other categories). The number of nonmetro counties in Virginia by economic type and the percent of the population in those counties are shown in Figures 2 and 3, respectively. A definition and the location of each economic type is given in Appendix A.

Figure 2. Number of Virginia nonmetro counties by economic type.

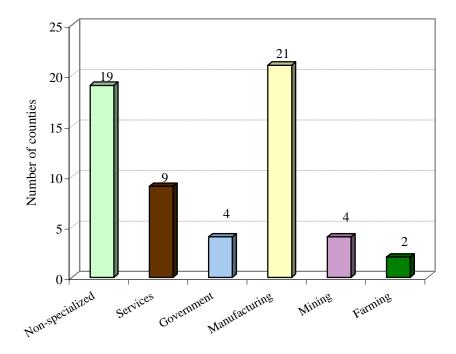
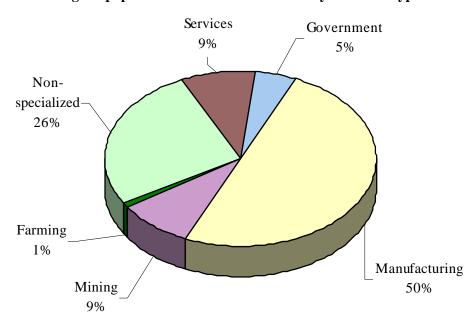


Figure 3. Percentage of population in nonmetro counties by economic type



Rural counties are also classified by whether they are retirement destinations; have large amounts of Federal lands; have large numbers of commuters; have many families dependent upon transfers of money from the federal, state, and local government (transfer-dependent); or have a history of persistent poverty. These attributes are considered to be "policy types." It is immediately apparent that rural Virginia is buffeted by a number of economic forces, and that different policies will affect

each area in different ways. For instance, changes in federal entitlement programs will have major affects on the transfer-dependent counties. The number of counties and people subject to these descriptions is shown in Figure 4. The definitions of these classifications and the location of specific counties are given in Appendices A2 and A3, respectively.

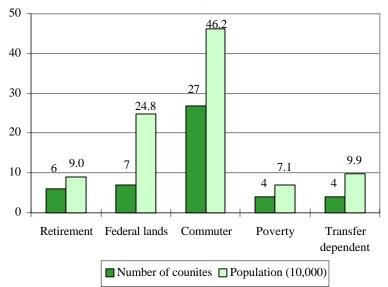


Figure 4. Nonmetro counties by policy type: number of counties and population

DIVERSITY OF RURAL PROBLEMS

The general health of a community can be measured by examining a broad range of socioeconomic indices. Population changes are one good indicator. Population shifts result from public and private investment decisions, employment opportunities, changes in state and federal policies, and other underlying economic forces at work in the community. Consequently, the specific factors causing population growth or decline have to be identified case by case. This diversity argues for a rural policy approach that is flexible and that encourages local involvement in the solution process.

The concerns of the people and the remedial actions taken will be different depending on these underlying causal factors. Communities experiencing slow population growth or declines face, as a group, some similar issues. Likewise, communities with rapid population growth have common problems. Over the 5-year period from 1990 to 1995, 22.0 percent of the nonmetro counties have faced greater than average increases in population; 62.7 percent have had lower than average increases in population, and of those counties, 35.1 percent have had either decreases in population or no change at all; and 15.3 percent have had average increases in population (5 to 7 percent). (Figure 5).

Growing Areas

Rapidly growing rural counties such as Frederick or Halifax face problems with growth management, increased congestion, open space and land-use management, and dramatic increases in service requirements, among other pressures. These areas need information, tools to evaluate options, assistance in designing strategies, and flexibility to implement these strategies. One strategy being used by Virginia Beach in dealing with its growing population is to attempt to protect agricultural land by encouraging farmers to keep existing farmland in agricultural production. To accomplish this

goal, Virginia Beach is in the process of carrying out a program to purchase the development rights on agricultural land. The approach has merit in Virginia Beach, but may have only limited or no application in other communities also facing growth-related problems.

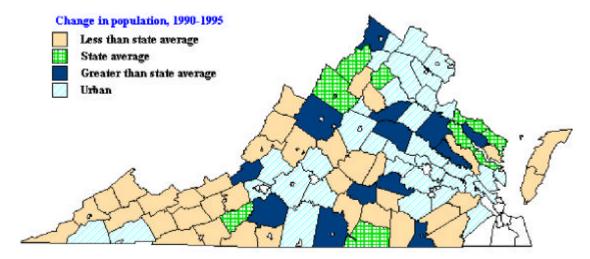


Figure 5. Population changes in nonmetro counties

Declining or lower than average growth areas

Communities experience population loss for a variety of reasons. Declining population in rural communities is often attributable to locational disadvantages and a history of poor public investment decisions which lead to poorly trained work-forces and crumbling public services. Economic forces exacerbate and build on these problems.

Locational disadvantages and poor public investments create economic rigidity so that the areas of decline cannot adjust to and benefit from global economic forces. An important economic force facing rural Virginia, especially after the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariff and Trade (GATT), is greater competition. Those Virginia firms depending on unskilled or semi-skilled labor face increased competition from places like Latin America, eastern Europe, and Asia. Economic development strategies in Virginia based on unskilled labor will be less likely to succeed as a result of this competition. Globalization has helped boost economic growth in many rural areas, yet the opportunities it creates have largely bypassed declining areas. The result is a relative deterioration of declining areas vis-à-vis the growing areas. This deterioration leads to out-migration, a subsequent loss of the tax base and political power, and an increase in policy issues to be addressed.

Specific Problems

The problems of rural Virginia are diverse. They range from the problems faced by Loudoun, Fauquier, and other counties as they deal with growth to those faced by other communities as they lose textile and sewing plants to increased world competition. They also include a broad spectrum of other problems. Of this broad spectrum, only a few are enumerated here.

• Water and sewer systems are essential for minimum public health standards and are important conditions for many kinds of economic development. Rural communities often

feel frustration and financial stress related to water and sewer infrastructure. Some feel financial burdens resulting from the federal Safe Drinking Water Act testing and purification requirements. Others lack the resources for system maintenance, much less for upgrading or expansion. Often the problem is lack of information about innovative financing or decision tools to evaluate financing options (Hunter).

- Welfare and health-care reforms have dramatic implications for rural areas, but this impact has not been carefully assessed. Most rural localities have no means of dealing with problems such as the financial stress on a small hospital caused by decreased Medicaid or Medicare funds. Requirements that welfare recipients begin to work potentially have negative implications for rural areas. Although these areas have traditionally had lower rates of participation by their poor families in public welfare programs, rural job growth is slow and unlikely to keep pace with the number of people coming off welfare rolls.
- Leadership in some rural communities is either unable or reluctant to identify the sources of conflicts over decisions, to use information to inform all the parties concerned, or to use other means of finding solutions that will reduce conflict. Where citizens do not feel local leaders hear them, the citizens are not supportive of other issues that require their approval. Of particular concern are the short-sighted decisions that result when a community will not support operating funds or long-term investments in educational facilities. Such problems never go away and short-run "fixes" usually result in a deterioration in the quality of schooling and in the desirability of the community as a place for people to live and do business.
- Development in rural communities requires greater **flexibility** in the use of state economic development funds and increased local input into the process of economic development than is currently provided.
- Many of the problems and opportunities facing rural Virginia fail to honor existing political boundaries. **Spillover** occurs when decision making is carried out in a unit of government or the private sector that does not encompass the geographic area that experiences all the benefits or costs of the decision (Olson). When such spillovers occur, there are incorrect incentives that lead to over- or under-investment in services or over- or under-uses of resources. Thus, national defense is financed and debated only at the federal level. By the same logic, localities make rational decisions when they choose to spend less on schools than they would otherwise because they believe that they are paying for more schooling benefits than they capture locally. Thus, if higher educational attainment leads to out-migration because of limited local opportunities, then localities will invest less in education than they would otherwise. In such cases, the rest of the Commonwealth suffers because certain localities are not investing in education at the rate that the entire Commonwealth would desire. The quality of schools in a community is an important development issue and an important attraction for new residents and firms.
- The opportunities and challenges accompanying **rapid suburbanization of rural areas** adjacent to metropolitan areas are significant. A classic situation involves the urban homeowner who has moved to the country expecting peace and tranquillity only to discover the noise, smell, dust, and chemicals that are often associated with modern farming. The resulting clash of values has generated what might be termed the "conflict at the edge" syndrome.

• State government invests little in **creating information** from the data available for use by state and local governments. These data are widely available but need to be analyzed to create information. Such information is necessary for sustained rural development.

CURRENT POLICY AFFECTING RURAL VIRGINIA

While many existing policies benefit rural and urban areas, there are some key policies that do not.

- Virginia's Dillon rule constrains local communities' ability to respond to changing market
 conditions and increased competition. The Dillon Rule means that Virginia's counties, cities,
 and towns can exercise only those powers the legislature specifically authorizes. This
 additional legal barrier increases the cost of decision making relative to the time required. And
 even if state approval is expected, it allows for the possibility that state approval will be denied.
- For years **collaboration** has been touted as a means of reducing service costs and competition between communities. Despite the successes enjoyed by selected Virginia localities (the revenue sharing agreements involving Albemarle County and Charlottesville, and Pulaski County and the City of Radford, as well as the numerous service agreements involving a broad range of local government programs), many rural communities continue to believe that constituent services can only be delivered locally. Indeed, some rural localities believe Virginia's adherence to the Dillon Rule actually precludes inter-jurisdictional cooperation.
- Virginia's local governments have depended upon the real property tax as a primary source of revenue. As a mechanism for financing local governments it is anachronistic in the late 20th and early 21st centuries. When Virginia was a more agrarian society, land ownership was more directly related to wealth and income, and the value of land was more related to its productivity in agricultural or forestry. Land values were thus an acceptable means of measuring the ability to pay for local services, which is not true today. Reliance on the property tax has altered local decisions made with respect to settlement patterns, local schooling and other service spending, agricultural and forest production decisions, and land-use planning for much of the twentieth century. In like fashion, Virginia's network of counties has been precluded from utilizing the sources of revenue available to the Commonwealth's cities and towns.
- Some state programs and mandates require unrealistic and outdated **regulations and standards** that impact on local government practices and that are impediments to development in rural communities. Examples include applying federal and state standards for highway bridges to some country road settings and mandating uniform waste recycling levels across the state. The ability of a rural locality to petition Virginia Department of Transportation (VDOT) to relax construction standards in rural subdivisions, an action sanctioned by the General Assembly in 1997, is representative of the mindset change that must accompany the next century.
- **Local land-use plans** have historically been developed with little or no consideration shown for surrounding localities.
- The domain of decision making on **education** by federal, state, and local governments is a critical issue because of the tradition of local autonomy in educational decisions. The quality

of schools in a community is an important development outcome in attracting new residents and firms; educational benefits tend to be captured locally. But the entire Commonwealth suffers if a locality rationally under-invests in education because it cannot capture all the benefits of such investments.

- The existing **Opportunity Virginia** discusses production sectors, such as industry and transportation, without detailed analysis of many critical supporting sectors such as education and health. Nor does it address critical institutional constraints, such as the effectiveness of the educational effort because of class size or tax base.
- Current Virginia economic development policies are limited primarily to industrial recruitment and creation of a business-friendly environment, without input from local citizens regarding their preferences.
- There is currently no **rural health-care** policy in Virginia.

WHAT IS KNOWN ABOUT WHAT WORKS TO SOLVE RURAL PROBLEMS

Sources of Economic Growth

Land, labor, capital, and management expertise have long been recognized as primary factors of production. The quantity and quality of these factors employed in an area determine economic well being. Economic growth results from investments in people and places. Investments in people such as K-12, adult, and workforce education and improvements in access to health care increase productivity and stimulate economic activity. Investments in places—infrastructure such as roads and telecommunications—make areas more productive by linking them to markets. Investments in people and infrastructure increase returns to private investments and stimulate business creation. Private capital is the engine that will drive sustained development throughout the Commonwealth.

Increased production can be accomplished by:

- Improved management and efficiency of existing production. Increased efficiency requires good information, modern infrastructure, and identification of outputs for which firms have a comparative advantage.
- Introducing new technology via new firms--whether they are old firms in a new location, newly created firms, or expansions of existing firms. Technology is also the product of the major state research universities in Virginia and modern research institutions such as the Virginia Center for Innovative Technology (CIT) and Research Triangle Park, North Carolina. Research at such institutions spills over into economic growth that benefits the entire surrounding region and generates high returns for each dollar invested (Norton and Johnson).
- Returns to size (scale) and specialization. These are related to the ability of a firm to find a specialized market niche and are part of what is frequently called "agglomeration"

economies." They are determined by access to information and spillovers that result when "critical masses" of knowledge accumulate in areas. For example, in the furniture manufacturing areas of North Carolina there is a knowledge base among workers, suppliers, sub-contractors, and even accountants about the furniture business that makes it easier for another furniture manufacturing firm to open there. The same is true of computer related activity in the "Silicone Valley" of California. Thus, some kinds of businesses coming into a Virginia community will have greater economic impacts than other types, depending on how complementary they are to existing economic activity.

More clues about improving local well-being can be found by examining how regional income is generated. Total income in a region equals the revenues from production exported from the region, minus the amount spent for imports, plus income generated by purchases of the people within the region. Using this basic equation for regional income, Pulver suggests that there are a limited number of strategies that can be used to improve employment and income in a region. He identifies the following:

- attract basic employers to the community (industrial recruitment),
- encourage the formation of new businesses locally,
- work with existing businesses to improve their efficiency and profitability,
- assist local businesses in identifying and capturing markets, and
- increase the earning power of residents by enhancing their productivity.

The concept of regional income can be expanded to include government services, government taxes leaving the region, higher levels of government grants or spending in the region, and private inflows such as retirement and investment income. With such an expansion, the following two strategies emerge:

- re-acquire dollars taxed away by the broader units of government; and
- improve the performance and efficiency of local government in its production and delivery of services.

There are many specific strategies to increase jobs and incomes, including industrial park development and industry recruiting, programs to identify problems that existing firms face in the community, retail market surveys to identify potential import substitution opportunities, and many more. Successful implementation of these strategies requires significant local input to craft solutions to meet local needs. The balance between local autonomy and state authority must be found and maintained so that sustained rural development occurs.

The Efficacy of Economic Development Strategies

There is continued debate among people, politicians, and even economists about the role of government in the process of economic development. Most economists agree that government should be relied upon to provide public goods (those goods which the private sector, for one reason or another, will not provide adequately, such as police services or education) or to address cases of market failure. Market failure occurs when the market does not work effectively. Underdeveloped areas are manifestations of market failure, as are unsightly areas affected by urban sprawl. The main question that remains is how can government enhance local ability to solve development problems?

Most research concludes that "hard" economic variables, such as the incentives available to communities, access to infrastructure, and the distance from metropolitan areas or an interstate highway, are not the most reliable variables for explaining successful development (John, Batie, and Norris). "Soft" variables like "community leadership" or "sense of community" more consistently explain economic development success.

Unfortunately, generating "community leadership" and "sense of community" is elusive and difficult to legislate. It is harder to create these factors in communities than to offer tax incentives, build shell buildings, or grant water quality permits. However, it is also clear that incentives and capital investments work better in the presence of strong, knowledgeable community leadership and a strong sense of community. Where these principals have not been applied, problems have arisen.

The principle of spillovers is the rationale for state and federal investments in, and regulation of, local schooling, pollution control, and a host of other services. However, in each case the question remains as to whether the financial and decision-making burdens are being borne at the appropriate level. In cases where they are not, less than optimum decisions result. This inequity is part of the complaint about "unfunded mandates" between various levels of government.

Compartmentalization of programs in one agency without coordination with other programs leads to centralization of responsibility and less flexibility. For example, one of the prominent efforts of state government contributing to economic development has been the successful industrial recruitment and industrial development activity of the Virginia Economic Development Partnership. That program, with its associated assistance in developing industrial sites and shell buildings as well as other incentives for industrial attraction, provides state-level leadership in recruiting of new industrial plants to Virginia's communities. It has led to large, visible payoffs such as the Toshiba plant in Prince William County, but also to failures such as the Disney project. There is substantial evidence that rural communities value different outcomes of development differently (Box 1) than do the state decision-makers who run the programs. Thus, state policy designed to attract firms providing large numbers of jobs may by-pass many of the firms most attractive from the viewpoint of the rural communities (Bailey, Cox).

A decision-making process for the disbursement of state economic development funds that assures the incorporation of local goals, objectives, and preferences while assuring that state-wide goals are met is necessary. This process must assure the use of scarce state resources for maximum development potential. For example, while the development of a "Silicon Dominion" may have future positive spillovers that lead to wide-spread benefits, there is considerable risk of failure. Diversity in conditions argues for diversity in approaches. Existing development plans, such as "Opportunity Virginia," focus too much on identifying target sectors and do very little for localities that identify opportunities that do not correspond to those pre-selected sectors. By recognizing the diverse needs of localities, creating an enabling environment whereby leadership has the power to act as it sees fit, and intervening to provide information and decision-making tools as necessary, the state helps localities build the "soft" variables that help ensure success.

Box 1: Research on Local Preferences for Development Outcomes

Recent research conducted through the Rural Economic Analysis Program (REAP) at Virginia Tech shows that leaders from different rural counties in Virginia valued outcomes from economic development efforts differently. In case studies in Bath and Halifax counties, community leaders and citizens, when attracting industry into the area, displayed a strong preference for defending environmental quality even at the cost of fewer local jobs. In Montgomery County, job quality received the highest weight. In all three counties, the number of jobs created by a new firm was less important to county officials and residents than the quality of jobs, cleanliness of the industry, and commitment of the firm to the area through long term capital investment (Cox).

A survey of economic development authority officials in all 130 counties and cities showed that, in general, economic development officials in rural Virginia counties place a much higher value on the quality of jobs created by a firm, local investments of firms, strengthened commitment of the firm to the local area, and environmental quality than they place on the number of jobs created (Bailey).

Cox's research also shows that desired impacts (development outcomes) vary depending on local conditions and local goals. Cox's and Bailey's research both show that local preferences matter and suggest that local input is necessary to maximize the effectiveness of an economic development program. And they both demonstrate that local decision-makers have dramatically different preferences for outcomes than do state and federal decision-makers.

Industrial and business recruitment are important, but sustained development is a broader concept. It includes improvement of workers' skills and education, encouragement of entrepreneurship and small business development, enhancement of the fabric of local society that encourages people to work together to solve local problems (social capital), expansion and retention of existing businesses, and training and developing of local leadership, among others. Unless these issues are considered during the process of industrial recruitment, long-run prospects for economic development are compromised.

Rural leadership needs to develop the ability and will to plan, especially with respect to long-term issues such as land use and economic development strategies. The state should be active in setting out model plans and ordinances, as well as promoting their adoption. The state has such a role because decisions made in one community have implications for citizens in other communities and often for the entire Commonwealth. For example, failure to plan land use effectively can lead to runaway growth (sometimes called suburban sprawl). Such growth affects all who value scenic beauty and open space, and it influences the costs of providing public services in the communities involved.

ROLE OF THE LAND-GRANT INSTITUTIONS—VIRGINIA TECH AND VIRGINIA STATE

Sustained rural development requires the effective participation of local organizations. The strategy requires continual interactions between state agencies and rural organizations. Rural leadership needs to be developed and provided with tools to make decisions. Virginia Tech and Virginia State through Virginia Cooperative Extension can form the bridge between state agencies and rural organizations.

Improved information and decision-making tools are needed at all levels of government. The communications revolution leading to the "information superhighway" increases access to data. Those data need to be converted into meaningful information. Information generation (research), classroom education (teaching), and youth and adult education outside the classroom (Cooperative Extension) are central to the mandate of land-grant universities.

In addition to generating technologies in agriculture, engineering, and other areas that will be the engines of growth, Virginia Tech and Virginia State need to accomplish the following specific functions related to rural development:

- carry out systematic policy analysis of problems affecting rural Virginia using existing knowledge and data;
- carry out supporting research on problems of rural Virginia to generate new knowledge and new information for use in policy development and analysis;
- create and maintain the necessary tools for use at state and local levels to support new
 information generation, such as standardization and refinement of the models currently used
 in economic impact analyses; and
- develop, refine, and expand the capacity of extension staff to train local officials in the use of analytical tools and information and in leadership and conflict resolution.

At the present time at Virginia Tech, REAP is being expanded to focus attention on the problems of rural Virginia by inaugurating the Program for Community Vitality. Its mission is to strengthen the capacity of Virginia's leaders, residents, organizations, and institutions to improve their quality of life. The ability of REAP and Cooperative Extension to respond as fully as possible is constrained by a shrinking resource base.

TOWARD A NEW RURAL POLICY

The goal of a new rural development policy should be to help communities develop strong human resources, good public infrastructure, and flexible leadership so that communities can prosper in today's global economy.

This holistic approach to rural development policy will span many state agencies, sectors, and regions and coordinate and collaborate closely with federal programs. The conflicts between local authority and heavy reliance on local funding versus state objectives mean that clear state policy and progressive leadership are essential. Resolution of educational issues is related to the ability to use other sectors or agencies to solve rural problems. Proposed changes in federal welfare and health-care programs will have important economic impacts on some rural communities, particularly those counties with persistent poverty and heavy dependence on transfer payments. Such impacts must be included when developing policies in various agencies, such as the Virginia Economic Development Partnership, State Board of Education, and VDOT. At the same time, communities dependent on manufacturing or commuters will be subject to other influences in the state and national economy. Fragmentation of programs affecting rural areas must be overcome. Agencies must engage in dialogues among themselves and with their clients—the communities they serve.

The state must adopt and promote a community-based rural development strategy that represents a broad segment of the community, recognizes community assets and liabilities, capitalizes on the

unique resources and skills of areas and residents, and recognizes community goals (Fitzgerald). Elements that should be incorporated into a new policy framework for sustained development in rural Virginia include:

- An executive department of rural affairs or other state-level agency should be created to bridge the gap between state agencies, rural communities, and citizens. It should facilitate coordination and efficiency of programs for state agencies whose activities impact on rural areas. It should also have oversight authority and responsibility to review state spending in rural communities, including school aid and economic development assistance. This department must represent and advocate for rural communities in rule changes, in administrative procedures in the application of rules, and in identifying and developing legislation necessary to enhance the policy environment for rural development. It should seek the assistance of the state land-grant universities, through Virginia Cooperative Extension, Virginia Agricultural Experiment Station, and REAP, to provide research and educational assistance for solutions to the problems of rural Virginia and for policy analysis. The department of rural affairs would direct funding to promising rural initiatives which make maximum use of market mechanisms while assuring that larger state and regional interests are represented.
- Substantial input by local governments into development decisions and state policy is
 necessary to enable local decision-makers to enact their own strategies and to make their own
 decisions. Because spillovers occur, state policy needs to set broad standards. State policy
 makers must consider such spillovers carefully and decide upon the appropriate areas where
 guidelines and standards are needed. They must also recognize that standards might need to
 vary within the state. State agencies should more directly operate through local mechanisms
 and seek dialogue on all major development issues.
- It is crucial that Virginia's rural localities fully appreciate the principles and practices associated with inter-jurisdictional cooperation. Issues involving traffic management, water supply, solid waste disposal, crime, as well as economic development and employment practices, will not be solved by localities working in isolation from one another. Viable solutions will require inter-jurisdictional collaboration. Education, information sharing, mentoring programs, and partnerships between state and local government and among local governments is necessary so that spillovers from financing and decision-making will be minimized and better solutions for local problems will be found.
- "Bottoms up" coordination and decision making for the disbursement of state economic development funds is necessary to assure the incorporation of local goals, objectives, and preferences while maximizing local involvement and responsibility. A department of rural affairs can accomplish this goal by establishing a state rural development council which would consist of broad-based representation from groups concerned about rural Virginia. To this end, the department should collaborate with federal and regional agencies such as the United States Department of Agriculture (USDA) Office of Rural Development for Virginia.
- In many respects, rural Virginia's future will be a function of decisions made relative to land use. Harmonizing the needs of agriculture with those of the non-agricultural population will require a delicately balanced response. Comprehensive land-use planning and the efficient application of zoning, subdivision, and capital improvement programming policy can help resolve the conflict. A state agency on rural affairs will, of necessity, work closely with other state agencies, such as the Virginia Department of Agriculture and Consumer Affairs (VDACS) and the Department of Forestry, to develop viable land-use policies and programs.

- Changes in technology, in business and economic systems, and in state and federal policies governing land use, are awakening Virginia's rural localities to a world where interdependence has replaced independence as the operative norm. It is critical that local planning efforts acknowledge the regional setting and the impact or contribution a locality's comprehensive plan will have within the region as well as the plan's impact on neighboring jurisdictions. It is essential that local land-use plans become tools of inter-jurisdictional coordination during the next century.
- It is in the Commonwealth's best interest to develop model plans and ordinances that accommodate the needs of the agricultural, forestry, and wood-products industries. In addition, criteria and a discrete planning methodology outlining the needs of agriculture should be developed and included as part of local land-use plans. Developing a regional strategy or plan for agriculture should also be given a high priority.
- Elements of model regional strategies should be developed and shared with Virginia's rural communities.
- Existing powers and legislated authority that exist under the Dillon Rule should be examined. The central question is whether strict adherence to the Dillon Rule will be in rural Virginia's best interest as the Commonwealth prepares for the new century. Careful study and analysis, detached from overt political orientation and tied to specific areas of influence and concern to rural Virginia, should be conducted. The goal of the study would be the examination of rural Virginia's specific opportunities and challenges and the identification of revenue and service delivery options best suited for Virginia's rural localities.
- The next century will necessitate that all Virginia localities be afforded the same options with
 respect to sources of local revenue as are available to towns and cities. The ability of
 counties to borrow money and float bonds by a vote of the county governing body, rather
 than a public referendum, will enable Virginia's rural counties to move forward during the
 next century.
- Data are widely available but need to be organized and analyzed to provide the meaningful information necessary for sustained rural development. Furthermore, provision must be made for the creation of improved data and information systems accessible to rural communities. To allow for informed decisions to be made, that data must be analyzed and provided to localities. Policy must assure that a local capacity to use the information exists by providing training and education (leadership, computer literacy, internet use, information management, and so forth) for local officials.

The policy challenge is to create an environment that will help build community leadership through training, information, and decision tools, and then enable this leadership to act to achieve local objectives. Local leaders can then begin to focus on the factors affecting income growth. State policy should aggressively seek to train local decision-makers through outreach and continuing education because shortcomings in local leadership will be magnified with the increasing transfer of authority and responsibility to local government.

CONCLUSION

Successful rural communities will be those with the human resources, infrastructure, and ability to adjust that allow them to contribute the most value to the global economy. Communities must face these challenges and move forward.

The diversity between urban and rural areas is obvious. The diversity within rural areas is just as great although less obvious. What will work as a rural development plan in a community with a growing population has a high potential for failure in a community with a slowly growing or declining population. This dichotomy results from the underlying economic forces at work. In order to meet the needs of rural communities, a policy for economic development must be flexible enough to allow for these fundamental differences.

The diversity of problems implies a need for a greater involvement of local leaders and citizens in finding solutions to local problems that may have statewide implications. At the same time, there is a constant struggle in balancing local or regional interests with state and federal interests. These interests change depending on the characteristics of the problem or the service involved. For example, there are benefits from schooling that accrue to families, to local areas, and to state and national economies. The same is true for the control of pollution to maintain air and water quality or the establishment of standards for the building or maintenance of infrastructure. Different interests will develop different solutions. To have solutions that satisfy both state and local interests require that there be a true partnership in the development of those solutions.

For reasons of equity and enlightened self interest, rural Virginia cannot be left behind the rapidly growing metropolitan areas of the state. Rural people manage the resource base of the state and deserve to share in the prosperity of Virginia. Increased state investment in rural people and places would pay dividends to everyone. The state must remove burdensome and unneeded constraints on local actions, help enable local governments to make better informed decisions, and create a bridge between rural areas and state agencies to ensure over-arching issues will be properly considered. The proposed policy and program give rural communities more control and hold them more responsible. It is a "hand up" not a "hand out" to rural people that every Virginian can support.

REFERENCES

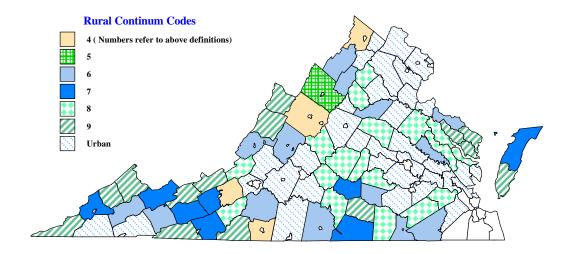
- Bailey, Thomas. "An Analysis of Firm Desirability among Virginia's Counties and Cities." Unpublished MS Thesis. Virginia Tech, June 1996.
- Beale, Calvin. Email reply to request for definition, June 18,1997. cbeal@MAILBOX.ECON.AG. GOV.
- Cox, Anna M. "Proactive Industrial Targeting: An Application of the Analytical Hierarchy Process." Unpublished MS Thesis. Virginia Tech, July 1996.
- Cox, Anna M., and Jeffrey Alwang. *Measuring Retail Trade: An Example from Wytheville*. Virginia Tech Coop. Ext. Pub. 448-223/REAP R025, 1996.
- Fitzgerald, Eileen M. "A Community-based Strategy for Rural Development," *Horizons*, Vol. 4. No. 4, July/August 1992.
- Flora, Cornelia B. and Jan L. Flora. "Developing Entrepreneurial Rural Communities," *Sociological Practice*, Vol. 8, 1990.
- Hunter, Janet. "An Analysis of the Ability of Virginia's Water Systems to Finance System Improvements." Unpublished MS Thesis. Virginia Tech, September 1995.
- John, DeWitt, Sandra S. Batie, and Kim Norris. "A Brighter Future for Rural America?" *Strategies for Communities and States*. Washington, DC.: National Governors Association, 1988.
- Johnson, Thomas G. "An Economic Perspective on Target Industries for the Radford Army Ammunition Plant." Paper for the New River Valley Planning District Commission. June 1995.
- Johnson, Thomas G. and George Norton. "Virginia Agriculture and Returns on Investments in Research and Education." Summary sheet.
- Johnson, Thomas G. and Ernest Wade. *The Economic Impact of Agriculture in Virginia*. Virginia Cooperative Extension Pub. 448-217/REAP R019. 1994.
- Orden, David. Personal conversations. Dept. of Ag. & Applied Econ., Va. Tech.
- Olson, Mancur, Jr. "The Principle of 'Fiscal Equivalence": The Division of Responsibilities Among Different Levels of Government." Papers and Proceedings of the 81st Annual Meeting of the American Economics Association, *American Economics Review*, Vol. 59 (2), p.479-487, May 1969.
- Pulver, Glen C. "A Theoretical Framework for the Analysis of Community Economic Development Options." Gene F. Summers and Arne Selvik, eds. *Nonmetropolitan Industrial Growth and Community Change*. pp. 105 -118. Lexington, Mass.: Lexington Books, 1979.
- US Dept. of Agriculture. 1989 Revised county typology for Virginia. Econ. Research Service. http://www.econ.ag.gov/...olog/ustypo.map?385,147.

Nonmetro continum codes (Figure A1.)

Nonmetro counties:

- 4 Urban Population of 20,000 or more, adjacent to a metro area
- 5 Urban Population of 20,000 or more, not adjacent to a metro area
- 6 Urban Population of 2,500 to 19,999, adjacent to a metro area
- 7 Urban Population of 2,500 to 19,999, not adjacent to a metro area
- 8 Completely rural or less than 2,500 urban population, adjacent to metro area
- 9 Completely rural or less than 2,500 urban population, not adjacent to a metro area

Figure A.1. Virginia county classification: County Continuum Codes.



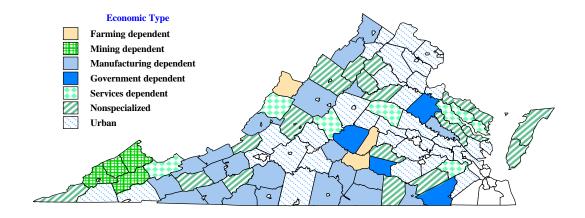
ERS classified counties that were designated by the Office of Management and Budget as nonmetro in 1993 into one of six, non-overlapping economic types: farming-dependent, mining-dependent, manufacturing-dependent, government-dependent, services-dependent, and non-specialized. (See definitions [Figure A2.].) Counties are also classified into five overlapping policy types: retirement-destination, Federal lands, commuting, persistent poverty, and transfer-dependent. Of the 2,276 US nonmetro counties, 2,259 were classified into 1 of the 6 economic types, and, as applicable, 1,197 counties were classified into 1 or more of the 5 policy types [Tables A1 and A2]. . . . Descriptive profiles of the different county types are provided to contrast differences between the types in population, levels of economic well-being, and the patterns of economic and population change during the 1980's. (USDA, ERS)

DEFINITIONS

Economic types [Figure A2]

- **Farming-dependent**: Farming contributed a weighted annual average of 20 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.
- **Mining-dependent**: Mining contributed a weighted annual average of 15 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.
- **Manufacturing-dependent**: Manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.
- **Government-dependent**: Government contributed a weighted annual average of 25 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.
- **Services-dependent**: Service activities (private and personal services, agricultural services, wholesale and retail trade, finance and insurance, transportation and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.
- **Nonspecialized**: Counties not classified as a specialized economic type over the 3 years from 1987 to 1989.

Figure A2. Rural Virginia counties by dominant economic activity.



Policy types [Figures A3 and A4]

Retirement-destination: The population aged 60 years and over in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands: Federally owned lands made up 30 percent or more of a county's land area in the year 1987.

Commuting: Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent poverty: Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, 1990.

Transfers-dependent: Income from transfer payments (Federal, state, and local) contributed a weighted annual average of 25 percent or more of total personal income over the 3 years from 1987 to 1989.

Figure A3. Policy types

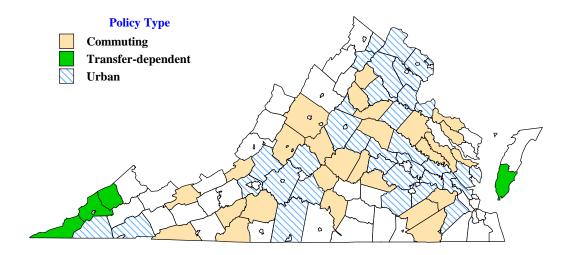
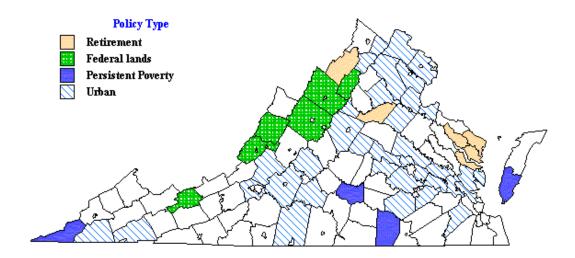


Figure A4. Policy types, con't.



Source: Economic Research Service, USDA. http://www.econ.ag.gov/epubs/other/typolog/TYP89VA.TXT. Economic Research Service, 1989 Revised County Typology for Virginia

Table A.1 Selected characteristics of Virginia counties by economic type

							Non-	Va.	US
Item	Unit	Farm	Mining	Manufacturing	Government	Service	specialized	nonmetro	nonmetro
Number of Virginia counties	Number	2	4	21	4	9	19	59	2,276
Total pop. these counties, 1990*	Thous.	10	121	707	72	134	369	1,414	50,898
Average population, 1990**	Number	5,230	30,360	33,660	18,124	14,909	19,403	23,968	22,363
Population change, 1980-90**	Percent	-5.5	-12.0	1.8	4.2	1.0	5.6	1.8	0.6
Persons per square mile, 1990**	Number	16.3	70.6	71.0	36.9	43.3	48.4	55.3	36.3
Per capita income, 1989**	Dollars	12,112	12,667	13,795	13,660	15,544	14,472	14,137	13,580
Per capita transfer income, 1989**	Dollars	2,624	3,069	2,415	2,671	2,682	2,723	2,623	2,636
Poverty rate, 1990**	Percent	14.7	23.1	13.9	16.8	15.4	15.5	15.5	18.3
Total jobs, 1989*	Thous.	3	50	375	27	64	169	687	23,950
Total job change, 1979-89*	Percent	2.1	-2.7	16.4	5.9	8.1	16.5	13.5	10.6
Earnings per job, 1989*	Dollars	15,506	22,705	18,314	17,793	18,388	16,699	18,212	18,444
Earnings per job change, 1979-89*	Percent	24.8	-16.9	1.6	16.8	-7.3	6.4	-0.4	-6.5

^{*}Values are aggregated data or calculated from aggregated data.

Source: All measures were calculated by the Economic Research Service, USDA, using data from the Bureau of Economic Analysis and the Bureau of the Census

^{**}Values are unweighted county averages.

Table A2. Selected Characteristics of Virginia counties by policy type.

Item	Unit	Retirement	Federal lands	Commuting	Poverty	Transportation	Va. nonmetro	US nonmetro
Number of Virginia counties	Number	6	7	27	4	4	59	2276
Total pop. these counties, 1990*	Thous.	90	248	462	71	99	1,414	50,898
Average population, 1990**	Number	15,267	35,442	17,103	17,716	34,749	23,968	22,363
Population change, 1980-90**	Percent	10.8	2.4	5.8	-2.2	-9.3	1.8	0.6
Persons per square mile, 1990**	Number	60.9	51.9	37.8	49.1	69.7	55.3	36.3
Per capita income, 1989**	Dollars	17,337	14,353	14,456	11,661	12,410	14,137	13,580
Per capita transfer income, 1989**	Dollars	3,161	2,544	2,519	2,748	3,257	2,623	2,636
Poverty rate, 1990**	Percent	12.2	11.2	13.5	25.4	25.8	15.5	18.3
Total jobs, 1989*	Thous.	44	134	194	30	40	687	23,950
Total job change, 1979-89*	Percent	22.9	17.4	15.0	1.2	-0.9	13.5	10.6
Earnings per job, 1989*	Dollars	16,959	19,103	17,937	14,452	19,694	18,212	18,444
Earnings per job change, 1979-89*	Percent	6.8	-1.6	5.4	1.7	-13.4	-0.4	-6.5

^{*}Values are aggregated data or calculated from aggregated data.

Source: All measures were calculated by the Economic Research Service, USDA, using data from the Bureau of Economic Analysis and the Bureau of the Census

^{**}Values are unweighted county averages.