: the surrounding mountains, dumping the soil and rock from above ıe coal seams into nearby hollows and streams and creating vast acreʒes of level land. A small portion of the mined land was set aside for ıdustrial parks and other anticipated development, but the vast maırity of the barren plateaus were reserved as "wildlife sanctuaries." ocal residents complained about the destruction of the water tables, ıe pollution of well water, the contamination of creeks, and the deruction to homes and fields from blasting and high levels of dust, but ıe mines operated twenty-four hours a day, providing fuel for the ation's growing energy demands. Overloaded coal trucks hauled their roduct to nearby railheads or low-country generating plants across ıe Appalachian corridor highways that also carried rural workers to ıbs and services in distant growth centers.

In Hazard, the president told a crowd of almost five thousand that ppalachia and other poor places in America needed more help from overnment and more investment in private industry if they were to hare the prosperity of the rest of the nation. "If we, with the most rosperous economy of our lifetimes, cannot make a commitment to nprove the economy of poor areas," he said before departing for Lexıgton, "we will have failed to meet a moral obligation, and we also vill have failed to make the most of America's promise."[70] People in he crowd were enthusiastic and polite as they "sat on the hot streets ıf Hazard . . . drinking bottled water and wearing Old Navy," but nost had heard these promises before.[71] The town, of course, had hanged—it now boasted a new regional hospital, a fine community ollege, a Wal-Mart shopping center, dozens of retail outlets, and even everal modern housing developments—but not far away, up the holows and in the dying coal towns, was another Appalachia, one that ustained the old stereotypes of poverty and backwardness. That Apıalachia persisted in the shadows of the new.

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THE NEW APPALACHIA

In the heart of the mountains and along the northern and southern fringes of the region, the new Appalachia and the old survived side by side. During the years since the War on Poverty and the creation of the special program for Appalachian development, some communities had prospered and grown, while others had languished and declined. Everywhere the region's people were drawn into the web of a more modern and complex world. Growth centers and hollows alike had developed a greater dependence on the national economy and culture, although some communities had benefited from government-sponsored programs more than had others. Despite the transformation of places like Hazard and significant improvement by almost every gauge of region-wide socioeconomic performance, Appalachia still lagged behind the rest of the country in measures of income, health, education, and job security.

At the close of the twentieth century, the region was a much more diverse place. The modern highways, vocational schools, health facilities, and other public infrastructure projects funded by the ARC had altered the mountain landscape, reshaping much of Appalachia in the pattern of American consumer society. Appalachian teenagers wore the same clothing styles and listened to the same music as their counterparts in the rest of the nation, and local Wal-Marts carried an abundance of cheap, internationally made goods. Hidden within this new society, however, were old Appalachian problems that government initiatives had failed to address. An inadequate tax base, a low-wage economy, environmental abuse, civic fraud, political corruption, absentee landownership, and corporate irresponsibility continued to eaken the region and to limit the lives of its residents. The physical :struction of the mountains, rising drug dependence, and the loss of aditional values and culture, moreover, threatened to destroy those ings that had made the region distinct. Appalachia was rapidly joing the cultural and economic mainstream, and that prospect raised a :w set of uncertainties.

In the popular mind, Appalachia continued to represent the other merica—an isolated place of backwardness and poverty ironically :h in romance and tradition. President Clinton's trip to eastern Ken-.cky, media fascination with mountain culture during coal mining agedies, and the persistence of stereotypes in plays, television, and ovies continued to dramatize the popular belief that Appalachia was ımehow different from the rest of the country. The mountains and ountain people had served as counterpoints to American identity for /er a hundred years, and the failure of the War on Poverty and eco-ɔmic expansion to abolish the perceived differentness of Appalachia ıly reinforced old images and perceptions. The idea of Appalachia as place in, but not of, America continued because Americans needed to :lieve in Appalachia's existence as part of the ongoing debate over ıtional identity itself.

Modern Appalachia, however, increasingly reflected the social disions and the divergent dreams of the larger society. The growing ıp between mountain middle-class and working-class people, beveen rural places and suburban communities, and between local milies and neo-Appalachians raised troubling questions about the rection of American culture and the equity of unregulated development. The new Appalachia was as tied to material consumption and ass culture as was any part of the country, but in rural areas one ɔuld still find people who kept gardens, visited neighbors, and atnded family churches. In the shadow of the new artist colonies, golf ɔurses, and gated communities that increasingly dotted the hillsides : the Great Smoky Mountains and the Blue Ridge stood the trailer ɔmes of families who struggled to hold on to farms that had nurtured ıeir ancestors. Some of the wealthy newcomers admired mountain usic and supported local craftspeople, but much of the talent and ıtural wealth of the region continued to flow out of the hills, along ith many of the native youth.

Appalachia had been drawn closer to the rest of America, but the fundamental problems of the region remained: issues of land use and ownership, taxation and public responsibility, environmental quality, economic security, civic leadership, human rights, and respect for cultural diversity. Despite decades of behavior modification strategies, welfare management practices, and infrastructure development, the gap between the rich and the poor within Appalachia and the loss of land and community by longtime residents continued. In part, these public strategies designed to address the "Appalachian problem" failed not only because they did not confront the structural inequities behind the conditions but also because Appalachian problems were fundamentally those of the rest of the nation.

The Appalachian economy, for example, had always been tied to national markets, despite popular images of the region as isolated and underdeveloped. The postwar effort to modernize the mountains came at a time of rapid transition in the national economy, but politics and misperceptions of the region's history limited the actions of planners and policy makers to playing games of economic catch-up rather than to designing a sustainable, place-based economy for a changing world. During the 1970s and 1980s, as promoters of Appalachian development were building industrial parks, supporting the expansion of coal mining, and chasing runaway branch plants, the United States was undergoing a fundamental change from a manufacturing-based economy to a service-based economy. At a time when Appalachian leaders were struggling to recruit labor-intensive, low-wage manufacturing plants to an underdeveloped region, technology and globalization were moving these older forms of industrial growth abroad. Traditional industrial recruitment strategies not only perpetuated the long pattern of wealth flowing out of the mountains but also failed to provide a sustainable economic foundation or to protect the region's sensitive environmental resources. Branch plant economies provided jobs but created little permanent wealth in the communities where they operated. As the rest of the nation invested in expanding higher education, improving environmental quality, and encouraging creativity for a higher-tech and more service-based world, the core communities of Appalachia remained tied to the old, extractive economy.

This pattern of economic change without the benefits of diversity, forethought, and social equity was apparent throughout the region, but nowhere was it more evident than in the central coalfields. Despite the short-lived boom of the mid-1970s, employment in the coal industry continued to decline steadily throughout the final decades of the twentieth century. The introduction of new mining technologies, the depletion of easily accessible coal seams, competition from western U.S. and South American mines, and government regulation of air quality standards combined to restructure coal industry ownership and to shift production from underground mines to surface operations. Rural communities that had survived decades of uncertain employment in deep mines now found those remaining jobs disappearing, probably forever.

At least part of the decline in coal mining jobs was the result of the utilization of new technologies, especially robotics. Just as automated cutting and loading machines had displaced thousands of miners in the years immediately after World War II, the introduction of continuous mining equipment and remotely operated longwall machines revolutionized underground mining, allowing for increased production with still fewer employees. By the early 1980s, larger, more heavily capitalized companies were adopting the new technologies. Smaller operators, less able or willing to invest in the latest machinery, found it difficult to compete. In an era of energy industry consolidation, scores of smaller, locally owned companies sold out. Many operators moved their families and their wealth to Lexington, Roanoke, Knoxville, and other urban centers within the region.

The introduction of modern mining machinery reflected fundamental changes in the ownership structure of the coal industry, as a few large energy conglomerates came to dominate Appalachian coal production. Big operating companies such as Massey Energy, Arch Coal, and Consol Energy could afford to invest in the latest equipment, but the arrival of the energy corporations gave new meaning to the long legacy of absentee ownership of Appalachian resources. Less productive mines could be closed with little regard for local economies, and the application of new technologies was disproportionately weighted to increase production rather than to improve the health and safety of miners. Distant corporate executives and international stockholders were even less concerned with the future of declining coalfield communities than their predecessors had been.

As a result of globalization, technology, and the extension of the federal Clean Air Act in 1970, coal production within Appalachia shifted heavily toward the lower-sulfur coalfields of southern West Virginia and eastern Kentucky and toward cheaper surface-mined coal. With the decline of the American steel industry as a result of offshore competition, demand for metallurgical coal dried up, and production overwhelmingly shifted to steam coal. Older metallurgical mines in central West Virginia, southwest Virginia, and some areas of eastern Kentucky closed, leaving thousands of underground miners unemployed. In 2002, Appalachia still produced nearly 40 percent of the nation's coal, enough to generate about half of the electricity used in the United States, but region-wide production levels were on the decline, and the industry was concentrated in a few counties.[1]

The restructuring of the coal industry was especially hard on southwest Virginia. Coal production dropped so rapidly in Buchanan, Dickenson, and Wise counties during the 1990s that the total number of coal miners reached an all-time low of 6,900 in 1996, fewer than half of those employed in 1982. In nearby eastern Kentucky, the number of mining jobs declined from 35,000 to 15,000 during the same period. In counties where mining was once the dominant, if not the sole, source of employment, coal mining accounted for less than 15 percent of the jobs, behind construction and general trade positions. Harlan County, which had supported nearly 20,000 miners earlier in the century, employed only 1,200 in 2002. During the last two decades of the twentieth century, the number of coal mining jobs throughout all of Appalachia declined by 70 percent, falling from 159,000 to 46,000.[2]

Miners had lost their jobs before in the coalfields, which had always endured booms and busts in the coal market, but the disappearance of jobs in the 1980s and 1990s was permanent. Not only had technology altered the demand for underground miners, but the industry had already tapped the best seams of coal, and the deeper, thinner seams were more expensive to mine. Geologists in government agencies and universities increasingly predicted that the supply of mineable coal in Appalachia was running out and that declining reserves would limit future production. The Kentucky Geological Survey, for example, reported in 1989 that minable coal in some areas might be exhausted in twenty years. In many places, companies were already down to mining seams that had narrowed from seventy inches to as little as twelve inches, and these thin seams were full of impurities.[3] Despite the confidence of engineers that they would develop new technologies to reach deeper and thinner seams and the assurances of mine owners that the geologists were wrong, miners began to recognize that the era of big coal was gone and that fewer of the region's workers would again find employment in the industry.

The declining number of miners reflected changes in the politics and environment of coal communities. The once powerful UMWA almost disappeared as a political force in some areas of Appalachia, replicating the decline of union membership generally throughout the United States. After the election of Richard Trumka as president of the UMWA in 1982 and the ascendancy of conservative, probusiness interests in the Reagan White House, the union adopted a policy of supporting selective strikes rather than launching national strikes to shut down the entire coal industry. Trumka hoped to bring stability to the coalfields and to preserve jobs by helping American companies compete more efficiently with imported coal, but this policy of cooperation failed to halt sliding union membership. Then the A. T. Massey Coal Company in 1984–1985 and later the Pittston Coal Company in 1989–1990 broke away from industry-wide agreements in order to advance lower-wage and nonunion operations. The latter confrontation erupted as a spontaneous strike in southwest Virginia when Pittston refused to sign the union contract and brought in strikebreakers to replace picketing UMWA members. The strike resulted in the arrests of thousands of miners and their supporters and spread to more than fifty thousand miners in eleven states before reaching a compromise settlement. Pittston was permitted to continue to employ nonunion miners and to set a twenty-four-hour-a-day, seven-day-a-week work schedule. The Pittston strike signaled to smaller mining companies in Appalachia that they too could break their union contracts, and nonunion mines proliferated.[4]

The loss of jobs in underground mines and the decline of union membership sucked the economic lifeblood from scores of rural mountain communities. Few of the coalfield communities had benefited much from the infrastructure and industrial development efforts of the 1970s, and the limited service jobs and branch plants that had come to nearby towns and villages paid significantly less than a miner's wage and often provided no health or retirement benefits. A small number of miners found employment driving coal trucks and bulldozers at surface mines that began to expand in parts of southern West Virginia and eastern Kentucky, but many more left their homes seeking work in the new growth centers or in towns on the perimeter of the region. Those who were able to find work in the remaining nonunion deep mines labored under deteriorating work conditions and declining enforcement of federal mining laws, with fewer health benefits.

Even the landscape itself was altered by the changing structure of the coal industry. In the heart of the coalfields, the expansion of surface mining leveled thousands of acres of mountaintops, filling in the valleys between ridges and covering the heads of creeks with rubble. Blasts from these massive operations polluted or destroyed the well water of nearby homes, cracked foundations, and raised clouds of dust that settled everywhere. The new mining technique, known as mountaintop removal, emerged through a loophole in the Surface Mining Control and Reclamation Act of 1977 that allowed mine owners to circumvent regulations requiring the restoration of land to its approximate original contour if the reclaimed land could be put to "a higher and better use." The coal industry was quick to recognize the potential of mountaintop removal as a cheap and efficient way to create level land for economic development, and in an era when policy makers were feverish for industrial recruitment, the promise of flat, developable land in the mountains was enough to ease mining permits through the state regulatory agencies and the Army Corps of Engineers. With few exceptions, however, the promised developments never materialized, and communities were left with miles of deserted, treeless plateaus, poisoned water tables, and a permanently altered landscape. Most mountaintop removal sites were remote, and in the small number of cases where strip-mined sites were located close to population centers, the construction of shopping centers, hospitals, hotels, and small manufacturing facilities on old mine sites often ran into problems with unstable, shifting land.

Aside from the environmental destruction, increased production from surface mining generated few jobs, destroyed the area's potential for sustainable timber and tourism development, and pushed another generation of Appalachian youth out of their rural communities. By 2000 almost half of the coal mined in Appalachia came from mountaintop removal, but the growing industry's appetite for land seemed unlimited. As environmental writer Erik Reece put it, there were "now enough flattened mountains in Eastern Kentucky to set down the cities of Louisville and Lexington."[5] Despite the efforts of industry and government officials to recruit manufacturing plants to these so-called industrial parks, most remained abandoned or were later designated as wildlife sanctuaries. One site became the location of a federal prison, and another the home of a herd of elk transplanted from the western United States.

Local, state, and federal governments heavily invested public funds in making some of these mining sites suitable for development. At one valley fill location near Hazard, Kentucky, for example, more than $209 million in grants, tax credits, and local bonds were committed to build a fabricating plant that utilized timber from other surface mining sites in the production of glued wood trusses. Contractors spent $1 million of that amount to dig twenty feet down to find ground that was solid enough to build the facility.[6] Several years later, the commonwealth provided another incentive package to construct a four-thousand-square-foot aluminum building for a Florida-based computer call center, which left in 2003 after the tax abatement expired, taking its 393 low-paying jobs to El Salvador.[7] The wave of mountaintop destruction that swept across the central Appalachians as a result of growing urban demands for cheap electricity generated few jobs for mountain people but left a permanently scarred and wasted landscape.

As coal employment withered, attempts to recruit manufacturing facilities to the coalfields and nearby rural Appalachian communities intensified. Anxious government leaders diverted millions of dollars of public resources into the effort, but their plans were generally met with disappointment in an era of national economic transition. After taking advantage of incentive packages and tax rebates, most of the branch textile, shoe, food processing, and other small plants attracted to Appalachia in the 1980s and 1990s left the region by the end of the century, shifting their production to offshore, even-lower-wage facilities in Latin America and Asia. A study conducted for the ARC concluded that manufacturing in Appalachia, relative to the rest of the country, looked much the same in 1992 as it had in 1967—lower wages, lower productivity, and much more reliant on branch plants.[8]

The fever for manufacturing recruitment, of course, was not limited to Appalachian leaders. State governments across the South expanded their marketing programs and incentive packages to bring outside jobs into rural communities. Most of the funds and the employment opportunities, however, flowed into the more prosperous regions of those states rather than into the distressed mountain counties. A study of North Carolina's economic development programs in 2003 revealed that only 7 percent of the state's industrial recruitment funds were invested in western North Carolina, despite the loss of 6,700 regional industrial jobs in that year alone.[9] A similar investigation in Kentucky found that barely more than 6 percent of the corporate income tax credits granted by the commonwealth for rural economic development between 1990 and 1997 went to eastern Kentucky.[10] Nevertheless, Appalachian leaders were often among the strongest proponents of these incentive programs, and by the mid-1990s, almost every mountain county had developed its own industrial park in hopes of succeeding in the increasingly competitive hunt for runaway companies.

Enthusiasm for industrial recruitment was especially strong in Appalachian Kentucky, where local officials hoped to combat job loss by attracting low-wage industry. Under the leadership of Paul Patton, a former coal operator and Pike County judge executive who was elected governor in 1992, eastern Kentucky counties launched aggressive campaigns to develop industrial sites on flat, often strip-mined land and to build speculation buildings at public expense. Patton's statewide incentive program allowed recruited companies to keep their corporate income taxes and the state income taxes paid by their workers, but even these incentives failed to fill industrial parks or to retain many of the businesses that agreed to relocate. Frequently these companies fell short of the number of jobs specified in their contracts with the state, or they closed after a few years of operation.

Harlan County's experience with industrial recruitment was typical. Beginning in the early 1990s, the state approved more than $11 million in tax breaks and incentives to recruit manufacturing companies to the county in the wake of declining coal employment. Four of the seven companies that received subsidies closed or never opened, and two more employed far fewer people than projected.[11] One North Carolina company, United Glove, defaulted on its promise to provide 100 jobs after securing a $1 million tax credit and left the state. Another plant, the Sunshine Valley Farms biscuit factory, opened in 1994 promising to create 106 jobs. After employing only 7 people five years later, the company was sued by the state to recover the public's half-million-dollar investment.[12] Sunshine Valley Farms was owned by two Kentucky nonprofit corporations created during the War on Poverty, the Kentucky Highlands Investment Corporation (KHIC) and the Christian Appalachian Project. Other questionable coalfield development schemes involved investments by local politicians, business leaders, and even coal-related interests. A Harlan County sock factory that had received more than $1.5 million in grants and loans failed soon after one of its owners was elected to the state senate in 1998. In Governor Patton's Pike County, the state spent $15 million over a decade to recruit, and lose, seven manufacturing facilities at a forty-three-acre industrial park, including one short-lived company that built aluminum dump trailers for hauling coal.[13]

The frenzy for industrial recruitment spawned dozens of private, nonprofit organizations across Appalachia designed to reduce the region's poverty by offering venture capital loans for plant construction and relocation. Among the most successful was KHIC, which, despite its Sunshine Valley Farms failure, helped to bring dozens of small plants to southeastern Kentucky in the 1980s and 1990s. Launched in 1968, KHIC initially utilized federal grant money to provide loans to companies that would create jobs in poor communities. In the 1980s it transitioned into a venture capital investment corporation, and in 1994 it wrote and received one of three Clinton administration rural empowerment zone (EZ) grants for $40 million. The only EZ grant awarded in Appalachia, it provided the pretext for Clinton's poverty visit to eastern Kentucky in 1999.[14]

According to one of the chief architects of the federal EZ program, the goal of the initiative was to "move beyond categorical investments in infrastructure and businesses inside the community boundaries to

building rural communities themselves, through holistic and integrative strategies."[15] Although the EZ philosophy emphasized community building through widespread participation in the planning and implementation processes, KHIC had little experience in community organizing. The Kentucky Highlands EZ was initiated, drafted, and managed by the staff of the KHIC in collaboration with a cadre of local officials who were more than happy to participate. Consequently the $40 million proposal reflected primarily the development interests of the corporation and a few powerful leaders in the three scattered rural counties.

Most of the federal investment in the EZ went to infrastructure, "downtown improvement," job training, and the Kentucky Highlands EZ Venture Fund for loans to industry. A planned 113-acre lake failed to materialize in severely distressed Jackson County, but the EZ recruited more than 3,000 jobs, mostly in Clinton and Wayne counties, south of Lake Cumberland. Employers in the latter included a number of luxury houseboat manufacturers and Cagle's-Keystone Foods, which employed more than 1,500 workers in a chicken processing facility.[16] Critics charged the EZ with using public funds to bring low-wage, dangerous jobs to the area and with employing large numbers of Hispanics and other workers from outside the county, but KHIC pointed to Cagle's-Keystone and to plants like the Mid-South Electronics facility that President Clinton visited in Jackson County as evidence of successful economic development.[17] Five years after Clinton visited the Mid-South plant, however, the company closed its Appalachian operations following a fire, leaving 700 employees without work.[18] Such plant closings were repeated again and again throughout the region as textiles, leather, and other small manufacturing operations abandoned the United States for cheaper offshore production.[19]

Despite the booming national economy in the 1990s, rural Appalachian communities struggled to keep pace with changing global markets. The decline of coal mining and manufacturing employment and the loss of supplemental income from tobacco farming left rural mountain families with few options in an era of rising consumption and technological change. Some families opted to commute long distances to service and trade jobs in regional growth centers. The new interstate and Appalachian corridor highways were clogged each morning and evening with workers from rural communities streaming to and from low-paying jobs elsewhere. Other mountain families chose to subsist on Social Security or disability assistance in hollows and coves that were populated more and more by older residents. Many individuals, especially the young, migrated permanently to the education, employment, and social opportunities of distant cities.

Government policies that encouraged short-term growth at the expense of more sustainable development, that facilitated investment in some communities over others, and that allowed a few private interests to feed liberally at the public trough continued to fuel the growing inequities between the new and the old Appalachia. Rather than investing limited public resources in community-based educational improvement, sustainable agriculture, small-business enhancement, and the development of a regionally integrated economy, policy makers diverted millions of dollars to the creation of jobs that were disappearing in the rest of the nation. Rather than focusing civic energies on the improvement of housing, higher education, culture, recreation, and health facilities that would enhance the quality of life for local workers and encourage creativity and entrepreneurship, leaders continued to look to external models of development that perpetuated old dependences on outside markets and absentee capital.

At one level, of course, government growth strategies achieved measurable success. Poverty rates for the ARC region as a whole were cut in half between 1960 and 2000, and the gap in per capita income between Appalachia and the rest of the country narrowed. In 1960 nearly one-third of the region's residents lived in poverty, compared with one-fifth of all Americans; by 2000 poverty rates in Appalachia had declined to a regional average of only 13.6 percent, compared with 12.3 percent for the rest of the nation. Per capita income in the Appalachian region at the turn of the twenty-first century reached almost 84 percent of the national average, unemployment rates declined, and the number of severely distressed counties fell from 223 to 89.[20] With equally impressive improvements in the number of health care and education facilities, government agencies such as the ARC were proud to point to the evidence of progress that had been made in reducing the gap between Appalachia and the rest of the nation.

These cumulative data, however, obscured the reality of economic differences within the region. Measures of economic distress improved significantly across the United States between 1960 and 2000, but improvements in central Appalachia lagged behind the rest of Appalachia and the nation. While poverty rates in northern and southern Appalachia were only 12.8 percent in 2000, slightly above the national average of 12.3 percent, rates in the heart of Appalachia were 22.1 percent, almost twice the national average. Eastern Kentucky and southern West Virginia contained five of the poorest twenty-five counties in the United States, counties where one in three residents lived below the poverty level. In Martin County, Kentucky, for example, where President Johnson had tried to rouse support for the War on Poverty in 1964, the per capita income had risen from 34 percent to 55 percent of the national level. The majority of the counties on the ARC distressed counties list were in central Appalachia, and eighty-five of the counties that were economically distressed in 1960 were still listed as distressed four decades later. In contrast, Appalachian sections of six ARC states (Alabama, Georgia, Mississippi, New York, North Carolina, and South Carolina) had poverty rates in 2000 that were lower than those of the non-Appalachian counties in their states.[21] Appalachia was still one of the poorest places in the United States, and the deepest and most persistent poverty was still concentrated in the core of the region in amounts that far exceeded national averages.

Such measures of economic well-being also obscured social inequalities that cut across the region. Throughout Appalachia the income gap between rural communities and metropolitan communities widened significantly. Most of the new jobs that came to the mountains in the late twentieth century were in services, retail trade, and government, and the majority of these were located in or adjacent to the metropolitan areas, the growth centers connected by ARC corridors and interstate highways. Family income in rural Appalachia in 1999 averaged only 70 percent of that in metropolitan areas of the region and 65 percent of family income in the United States.[22]

Like the rest of the country, moreover, the gap between the rich and the poor grew substantially in the last decades of the century, as those with greater access to education, capital, and political power prospered in the growing service and retail centers of the region. Most evident in the nonmetropolitan counties adjacent to major cities and in the tourist-based counties of the Blue Ridge, the new mountain professional class thrived on the expansion and relocation of education, health, retail, and government services in the larger towns. In some places a growing population of nonnative retirees added to the income disparity, further increasing the demand for public services and driving up land values in rural areas. The gated housing developments, ethnic restaurants, BMWs, and Volvos that one could increasingly find in some mountain counties were ever present reminders of the gap between those with the resources to succeed in the new Appalachia and those without them. According to a study by the Center on Budget and Policy Priorities, in West Virginia the incomes of the richest families climbed substantially between 1980 and 2000, while the incomes of the middle- and lower-income families saw only modest increases. The growth in income inequality between the richest 20 percent and the poorest 20 percent of the population in the Mountain State was the sixth largest in the nation.[23]

Women and children carried the heaviest burden of poverty and income disparity. Although mountain women were quick to take advantage of the job training programs and community college facilities, many of the new jobs that opened up in the service sector paid low wages and were usually located far from workers' home communities. Child care was difficult to find, public transportation nonexistent, and maintaining a car expensive. Women in Appalachia, as elsewhere, had substantially lower incomes than men, earning on average about two-thirds of men's income. The highest poverty rates in the region were among female-headed households. In the most persistently distressed counties of central Appalachia, nearly 70 percent of female-headed households with children under six years old had incomes below the national poverty level in 2000.[24]

When Congress enacted welfare reform legislation in 1996 with the goal of moving individuals from welfare to work, the initiative was met with widespread skepticism in Appalachia. Low educational levels, the lack of available jobs, and the distances to child care and other public services made the implementation of the act difficult in most rural mountain communities, where poverty and disability rates were already high. Despite these challenges, welfare caseloads were reduced

by over 70 percent in Appalachia over the next decade as thousands of families were squeezed into an already glutted workforce or onto government disability programs such as Supplemental Security Income. The lack of available jobs and the migration of public services to the larger towns and villages placed a double burden on the rural poor, contributing to the persistently high rates of unemployment, underemployment, and poverty.[25]

Efforts by public and private agencies to ease poverty and income disparity in Appalachia met with some success in the 1990s. Under the leadership of Jesse White, the ARC adopted policies to encourage local entrepreneurship, job training programs, and the clustering of higher-tech industries that would advance regional competitiveness in the global economy and wean policy makers from their reliance on branch plant recruitment. The Ford Foundation launched a $10 million national effort, the Rural Community College Initiative, to help a dozen community colleges in Appalachia, the Delta, the Southwest, and Native American communities to become catalysts for local community development. A number of small, nonprofit organizations established programs to train and support local entrepreneurs, and one, the New Opportunity School for Women, won national recognition for its efforts to improve the educational, employment, and financial status of low-income Appalachian women. Such programs expanded the income potential for hundreds of individuals across the region, but they were usually underfunded, and they failed to alter traditional structures and patterns of development in the most distressed counties. By the turn of the century, for example, there was only one facility in all of central Appalachia designed to incubate small businesses and encourage creativity, in contrast to dozens that had been established in the more affluent northern and southern sections of the region.

The uneven benefits of economic development not only limited the opportunities for some individuals but narrowed the options for alternative patterns of community development as well. The absence of public and private initiatives to encourage locally owned small businesses and the marketing of regionally produced goods and services left mountain communities even more tied to global markets than they had been earlier in the century. Policies that recruited outside industries and utilized former mine sites for megacorporate chains such as

Wal-Mart not only facilitated the transfer of wealth out of the region, contributing to the decline of smaller, community-based businesses, but also drained public resources that might have nurtured local entrepreneurs and encouraged innovative, sustainable alternatives to the delivery of goods and services. In a region desperate for better housing, health care, education, and cultural amenities, community-based solutions for development were often bypassed in favor of externally controlled businesses and institutions that were more interested in growth than development.

This bias in favor of traditional, market-based solutions to regional problems was not limited to state or federal policy makers; it also influenced the economic visions of local mountain elites and shaped their attitudes toward the poor. Most Appalachian leaders welcomed growth of any kind, hoped to replicate mainstream symbols of material progress in their own communities, and were defensive about media portrayals of Appalachia as backward and distressed. Having benefited directly from the government investments that had helped to create the new Appalachia, mountain business leaders and professionals were proud of the transformations that had reshaped their communities, and they were sometimes indignant at suggestions that Appalachia was still a land of the poor.

During President Clinton's visit to eastern Kentucky in 1999, the economic and ideological gap between the rich and the poor was manifest in the response of local leaders. Most dignitaries and public officials who met with the president were honored to have the nation's leader in the mountains promoting the need for private investment in Appalachia, but some were insulted that his visit was part of a poverty tour. "I'm a Republican, and I really think he did us a good honor," Hazard mayor Bill Gorman told a *New York Times* reporter. "The greatest problem I've seen with people [in the mountains] is the lack of hope. You give them hope and they will conquer the world." Gorman, who had been mayor for the past twenty-three years and whose brother was a leading banker and coal operator in the area, had invited the president two months earlier to visit Hazard to demonstrate how well Appalachia was doing in the new economy. "Appalachia has a lot of problems," he informed reporters as they toured the local Wal-Mart and the new off-track betting facility, U Bet. "But the quality of life

here is no different than it is anywhere in the country." Charlie Hammonds, another Hazard official, added, "We're just the same as most places." But he worried that "the president spent a little too much time in places where the old stereotypes of Appalachia persists [*sic*]—on rural roads, out where families have little education or work."[26]

The faith of local leaders in the potential of postwar models of growth ignored historical and systemic inequities that continued to divide the region. The truth, of course, was that too many Appalachian families still had inadequate education, little hope for employment, and insufficient health care, and the institutional structures that had evolved since the 1960s had done little to alter existing class and political relationships. The loss of jobs to mechanization and global competition and the rise of technology and a knowledge-based national economy left many older, uneducated farmers, miners, and unskilled workers with nowhere to turn. Opportunities expanded for individuals who were positioned to take advantage of the new economy, but the reduction in federal job training programs during the 1980s, the lack of start-up capital and technical assistance for small businesses, and the anxieties of interacting with impersonal bureaucracies in distant growth centers forced many rural residents to fall back on old survival skills and the support of the extended family.

The politics of growth in the mountains, who won and who lost as a result of government investments, was nowhere more evident than in the arenas of education and health care. Long a weakness in Appalachia, public education underwent revolutionary change as a result of state and federal initiatives in the post–World War II years. The region's schools were modernized and restructured at every level, and measures of education from literacy to college graduation rates improved. By 2000 the old one- and two-room country schools had been replaced throughout the mountains by new consolidated schools, and access to higher education had expanded with state and federal investments in community and technical colleges. The percentage of Appalachian adults who had completed high school rose steadily, reaching 77 percent in 2000, compared with 81 percent for the rest of the nation, and the percentage of those who had attained college degrees reached almost 18 percent, compared with 25 percent nationally. Edu-

:ational gains, however, like economic gains, were not distributed :qually across the region. While metropolitan areas and the northern ınd southern subregions made gains that sometimes exceeded national ıverages, central Appalachia and rural areas throughout the moun-:ains continued to trail far behind national averages. In 2000 only 64 percent of adults in central Appalachia and 65 percent of adults in rural areas within the region had completed high school. Moreover, the gap in postsecondary education levels between Appalachia and the United States actually increased as the rate of college graduates in the rest of the nation grew faster than that in Appalachia.[27] The gain in college graduates was slowest in the coal counties and in other rural areas, in part because of the continued gap in per capita income in those communities but also because of the growing challenges of transportation and cultural alienation in the new education system.

As with strategies for economic development, efforts to improve education in Appalachia usually followed the pattern established by national and urban norms. The closing of rural community schools and the construction of modern consolidated schools with better classrooms, laboratories, and vocational training facilities not only provided an environment that looked like schools in suburban America but offered a broader variety of courses and the promise of more successful sports programs and extracurricular activities. By the new millennium, Appalachian schools looked much like those of the rest of the nation. Most of the consolidated high schools, however, were centrally located near county seats or metropolitan communities, requiring rural children to be bused (sometimes up to three hours a day) to and from school and limiting their participation in after-school activities.

Rural communities often paid the highest price for the consolidation of county schools. It was more difficult for students and their parents to participate in school programs, and the rural community lost a center for community life, pride, and identity. Modern, technical approaches to learning that rewarded individual competition rather than collaborative work; large, impersonal classes; and a school culture that emphasized access to consumer goods rather than traditional values and culture frequently distanced poorer, rural youth from the education system. Rural children, rather than their urban classmates,

were among the first to drop out of school after the ninth grade, and those rural students who finished high school were less likely to move on to higher education. Time and again, those who did succeed in the new system were drawn away permanently from their home communities to colleges, universities, and jobs elsewhere. From the perspective of some rural parents, improved educational facilities at the new consolidated schools enhanced the economic opportunities of county officials and their families but only facilitated the exodus of talented students from rural areas.

Many of the young people, especially women, who adapted to the new secondary education system took advantage of the modern community colleges that opened across the region and secured degrees as computer programmers, nurses, accountants, and other mid-level technicians for expanding government agencies in nearby towns. A few attended four-year colleges and universities, but many who did failed to return to the region because of the lack of employment opportunities in their specialty fields. Thus for larger numbers of mountain young people, higher education became a real possibility, but for many it also became another highway out of the mountains. Rather than serving as an economic engine that might power creativity, security, and innovation as it did in other areas of the nation, higher education in Appalachia too often served to sustain the existing system or to drain away the region's human assets.

Despite the opening of a law school in Grundy, Virginia, and a new medical school at Pikeville College in eastern Kentucky, for example, graduate and professional schools and institutes for scientific and medical research were scarce in central Appalachia, leaving most of the region's professionals to be educated outside the mountains and denying localities the economic and civic benefits that such institutions provide to dynamic communities. During an era when job creation was often linked to information exchange, knowledge management, and innovation, there was not a single rank-one research university in all of central Appalachia, between Morgantown, West Virginia, and Knoxville, Tennessee, and between Blacksburg, Virginia, and Lexington, Kentucky. Large research institutions on the perimeter of the region and a number of excellent small colleges and regional universities expanded their linkages with the rural interior counties during this period, but the intellectual and economic impact of higher education on Appalachia remained limited.

The mixed benefits of improvements in education were mirrored in health care, which also underwent dramatic change in the last decades of the twentieth century. The expansion of emergency facilities and primary care clinics provided better access to medical care, but income and transportation barriers often limited the use of these facilities by the rural poor. Although primary care facilities were available within thirty miles of almost every Appalachian family by the turn of the century, access to higher-level care usually required travel to a distant university medical center or urban facility. The advent of medical helicopters improved the travel time for emergency treatment, but the economic benefits of advances in health care flowed to the external medical centers rather than expanding the local economy and institutional base. Specialized care, particularly in mental health and obstetrics, was sparse in central Appalachian communities, leaving most rural families to seek advanced services or treatment outside the region.

As a result of federal programs to recruit health professionals to rural counties, the number of primary care physicians serving Appalachia increased between 1965 and 2000, but two-thirds of mountain counties were still listed as "health professional shortage areas" at the turn of the century. The shortage was especially severe in the rural, economically distressed counties of central Appalachia. Those counties were least likely to have full-service hospitals, and the primary health care needs of residents were most often served by federally subsidized community health centers. Many small hospitals in the mountains closed during the 1980s, after the federal government altered the Medicaid-Medicare reimbursement formula to favor larger, urban hospitals, and in the 1990s one in four hospitals in Appalachia was facing severe financial challenges. Rural counties suffered from shortages of dentists, obstetricians, and substance abuse treatment centers as well.[28]

As in other areas of the United States, life expectancy increased and infant mortality and maternal death rates decreased significantly in Appalachia during the last decades of the century, but such measures, which are often used to assess health status, hid disparities that

continued to place mountain residents at greater risk than other Americans. Inadequate health insurance, higher levels of poverty and unemployment, and lack of education and of preventive care led to higher instances of illness and death from some diseases in Appalachia, especially those related to diet and stress. Mountain residents were more likely than other Americans to suffer from heart and other cardiovascular diseases; diabetes; cervical, breast, and lung cancers; and work disability. Moreover, rural Appalachians suffered higher mortality rates from these conditions than did urban Appalachians.[29]

While the prevalence of a disease among any population group may have complex origins, there is little doubt that poverty contributed to the persistence of these health disparities in Appalachia. As one researcher observed, lower-income people in the mountains experienced "a combination of decreased access to health care, increased risk to occupational and environmental hazards, and a greater tendency toward lifestyle habits that correlate with a low sense of control over one's destiny."[30] Income uncertainty and the lack of job opportunities, for example, elevated levels of stress, anxiety, and feelings of powerlessness that sometimes resulted in drug dependence, obesity, and depression. The maladies of heart disease, diabetes, and lung cancer in Appalachia were linked to persistently high rates of tobacco consumption, which was in turn associated with stress and with the region's rural heritage. West Virginia and Kentucky had the highest rates of heart disease in the nation, and eastern Kentucky, where 43 percent of adults smoked, led the country in lung cancer mortality rates.[31]

Emphysema, asthma, and other lung-related illnesses remained particularly high in coal counties. Within the region, coal mining had always been the most dangerous form of employment. Disability and poor health had gone hand in hand with work in underground mines. The passage of the Federal Coal Mine Health and Safety Act of 1969 and the Black Lung Benefits Act of 1972 increased hopes that the health and survival of miners would improve, but as late as 2007, a national study found severe black lung disease on the rise among younger miners in eastern Kentucky and southwestern Virginia. The report concluded that a lack of enforcement and compliance with dust-control regulations was placing larger numbers of miners at risk. Black lung disease was still listed as the underlying cause of death for an average of more than six hundred former miners each year in Appalachia between 1999 and 2004, more than thirty years after the passage of federal mine safety laws.[32]

Despite state and federal mine safety legislation and the precipitous decline in coal employment in the last decades of the twentieth century, coal mining remained one of the most hazardous occupations in the United States. Between 1996 and 2005, 320 workers were killed in American coal mines. An even larger number were injured or permanently disabled by mine accidents. Most deaths and injuries occurred in individual incidents of roof falls, equipment misuse, or ventilation problems, most of which, one study claimed, could have been avoided if existing regulations had been followed.[33] Only when multiple lives were taken by dramatic mine explosions did the nation's attention refocus on mine safety issues. After 16 miners died in unrelated explosions in three mines in West Virginia and eastern Kentucky in the spring of 2006, three separate Labor Department reports accused the Mine Safety and Health Administration of overlooking obvious violations and of failing to take serious enforcement actions against the coal companies involved.[34] Critics charged the Mine Safety and Health Administration and state regulators with a long history of failing to enforce legislation, issuing nominal fines, and ignoring unsafe roof conditions, inadequate ventilation, and deficient safety procedures.

Just as coal mining continued to be hazardous to miners' health, living in the new Appalachia also brought a rise in tobacco, alcohol, and drug abuse usually associated with suburban and inner-city life. High rates of accidents and disease, elevated levels of worker disability, persistent unemployment, income uncertainty, and the growing availability of prescription painkillers contributed to rising levels of drug dependence in many mountain communities. An older population with more chronic disease and more chronic pain increasingly pressured medical providers for pain prescriptions, and more and more young people, lacking hope in the future of their own communities, turned to illegally obtained prescription drugs as a means of escape. According to one study, drugstores, hospitals, and other legal outlets in central Appalachia received more prescription painkillers than did any other area of the country.[35]

By the 1990s the illegal use of prescription narcotics such as OxyContin and Vicodin had become an epidemic. Marketed by national drug companies as less addictive and less subject to abuse than other drugs and almost casually prescribed by scores of mountain doctors, these narcotics rapidly became the drugs of choice among illegal drug traffickers and users in Appalachia. Possession and sales of these illegal substances jumped 348 percent from 1997 through 2001 in eastern Kentucky, and from 2000 to 2002, more than 1,300 drug-related deaths occurred in the mountains of the Bluegrass State. The *Lexington Herald-Leader* labeled that area "the prescription-painkiller capital of the United States." With parts of Appalachia experiencing drug-related deaths at four times the rate of the rest of the country, even the ARC became involved, helping to fund the regional Coalition on Appalachian Substance Abuse Policy and encouraging states to strengthen drug abuse programs and to build more treatment facilities. "Not only is substance abuse a public health problem," an ARC report pointed out to Appalachian policy makers, "studies show it impacts education, economic development and family life."[36]

The rise of the prescription drug culture in rural Appalachia was a tragic symbol of the arrival of modern America in the mountains. The new highways, shopping centers, consolidated schools, and industrial parks had reduced the perceived otherness of Appalachia, but the new economy failed to provide security, hope, and meaning for the lives of many of the region's residents. Persistent disparities in income, education, and health status limited the life possibilities of young and old alike and hastened the disintegration of the once strong Appalachian family and culture. As the region entered a new century, communities throughout Appalachia again confronted the dilemmas of modernization: how to define progress, how to grow with equity and fairness, and how to change without losing the strengths of identity and tradition.

Debate over growth and development had divided mountain communities for generations. At least since the late nineteenth century, some in Appalachia had advocated growth through industrialization as the way to enhance individual opportunities and wealth, and they looked to the greater connections with mainstream society and marets as the paths to regional progress. Others sought to sustain a more ommunal way of life that valued stability, security, and independence. ıfter a century of economic change, first as a result of private and cororate investment in the region's resources and later as a consequence f government initiatives, the old debate remained. Many communities, aced with job losses and the out-migration of youth, searched for alterative ways to survive; a few, confronted with rapid growth, looked to ontrol the process of change and to protect fast-disappearing cultural nd natural resources. Most places struggled with conflicting ideas bout the good life and with differing notions of the role of government ı shaping that life.

The character and strength of that struggle intensified in the new ıppalachia, in part because of the consequences of technology and lobal change and in part because of educational opportunities preented by government programs. The growth of world markets, he shift of manufacturing jobs abroad, and escalating demand for heap energy added to existing pressure on the economy and the land. 'he expansion of the professional class, rising numbers of neoıppalachians who migrated to the mountains in search of alternative festyles, and higher education levels among native residents increased he civic capacity and the diversity of critical voices within the region. Greater access to higher education in the 1960s and 1970s, moreover, roduced a new generation of cultural and political leaders that was nore educated and more willing to challenge existing power strucures. A few began to look beyond the old economies of coal and ranch plant manufacturing for more sustainable, alternative strateies for development. Coalitions of the new leadership often came ogether around issues related to the environment, health care, and ultural heritage, but their ideas frequently met resistance from instiutions and politicians comfortable with the status quo.

Ironically, the political culture that had evolved with the arrival of ndustrialization decades earlier now proved to be the greatest barrier o structural change. Mountain residents had always felt a sense of eparateness from mainstream society that reinforced their passion for reedom and independence. This pride in things local and familiar was nore than just a defensive reaction to outside stereotypes, for it fueled cooperative community spirit that allowed families to survive during

hard times. It also provided a pretext, though, to resist change, and eventually it was utilized by mountain elites to maintain long established political dynasties. A certain deference for authority, for example, sustained by religious traditions and gender roles, strengthened the power of influential local males, who often controlled access to jobs and family security, and it contributed to an acceptance of the political process as an extension of private economic interest. In a world of uncertainty and economic insecurity, challenging existing patriarchy could be especially risky. The good old boys who still dominated much of Appalachian economic, cultural, and political life at the end of the twentieth century disdained criticism, innovation, and wider participation in civic life just as much as those who had controlled the political system on behalf of outside corporate interests decades earlier. They continued to use patronage, fear, and prejudice to maintain privilege and power in their modern little kingdoms.

Most Appalachian families tended to separate public from private life unless some imminent threat challenged their fragile security. As a result, the old cadre of power brokers continued to dominate local governments and institutions, too often utilizing the public sector to achieve personal gain or to reward relatives and friends. Despite increased oversight by state and federal authorities, corruption and election fraud persisted in many mountain counties, and advocates of political and economic reform found their efforts repeatedly frustrated. Programs to improve the quality of leadership and enhance civic participation blossomed in the 1990s and met with some success in bringing women, youth, and minorities into the public process. The ARC even added civic capacity to its list of regional development goals, but these programs were limited and slow to alter the prevailing political culture.

Fraud, corruption, and self-interest were not unique to Appalachia, but in a region plagued with persistent social and economic inequalities, the paucity of honest and creative leadership added an additional barrier to systemic reform. Politicians in some of the most distressed counties of the region were accused regularly of complicity in tolerating poor schools and social services to maintain their control over the local job market, which in turn assured their own political survival. The consolidation of schools and the growth of federal human service programs provided an ever expanding pool of patronage jobs and government contracts that could be channeled to friends and family, and control of the law enforcement system afforded additional cover for other profitable but illegal activities. Mingo County, West Virginia, for example, attracted national attention in the late 1980s when sixty-two local officials were indicted for corruption within a two-year period. Among those convicted of drug trafficking were two sheriffs, a police chief, and the fire chief. Federal prosecutors charged another local leader, who served as the president of the school board and the director of the poverty program, with drug conspiracy, obstruction of justice, and fraud. The man had personally handed out more than 2,400 jobs in a county where the total number of jobs was 8,700.[37]

In other mountain counties, elected officials were charged with bribery, the illegal use of public funds to pave private roads, nepotism (including the extension of no-bid contracts for county services to relatives), and theft of public property, but the most frequent indictments were for election fraud. A grand jury in Appalachia, Virginia, in Wise County, indicted the mayor, a council member, and twelve others for buying votes to elect three members of a five-member council. Once in office, the new council members had helped to appoint the head of a police department that trafficked drugs and took money and personal possessions from residents.[38] Across the border in Knott County, Kentucky, the county judge executive was convicted of voter fraud and sent to jail. Two years later the county was under new leadership, but the Kentucky state auditor accused the new Knott County fiscal court of gross mismanagement of public funds. An audit found more than $13 million of questionable expenditures for illegal activities ranging from the use of public money to pave private roads to the overpayment of contractors, some of whom were related to county officials.[39]

In spite of the persistence of corruption and the continued power of special interest groups such as coal and banking, a few of the new leaders were able to rise above the quagmire of mountain politics and, for a time, attempted to chart a different direction. One former coal miner in Letcher County, Kentucky, Carroll Smith, brought door-to-door recycling to county homes and union representation to county employees when he was elected county judge executive in the state's

fifth-largest coal-producing county. Soon after taking office, Smith, a Republican, proposed an ordinance to limit logging that was damaging county land and roads. He also proposed a bottle recycling bill, an ordinance to ban smoking in public buildings, and a bill to raise the minimum wage above the federal level. None of the latter proposals won the approval of the fiscal court, but Smith developed a strong regional reputation for independence and for his efforts to promote open government and economic diversification. Unlike other politicians in the area, Smith refused to take donations from the coal industry.[40] He was narrowly defeated by a coal-supported candidate in 2006 after three terms in office.

Community leaders like Smith increasingly challenged the old political structures in Appalachia at the turn of the twenty-first century. They represented a rising number of residents who were frustrated with poor schools, insufficient job opportunities, inadequate health care, and deterioration of the environment. Many were professionals: doctors, lawyers, teachers, and artists. Some were new to the mountains, but others were native sons and daughters who had been educated outside the region and returned home to raise their own children. A few ran for office, but frequently they chose to avoid the sullied political process and to join citizen-based associations for change. For example, after the fifth congressional district in southeast Kentucky was identified as the least-educated congressional district in the country, more than 1,500 local people joined Forward in the Fifth, a grassroots organization established to work with teachers and children to improve educational outcomes in the schools.[41] Others joined multi-issue groups like Western North Carolina Tomorrow, Kentuckians for the Commonwealth, and the Kentucky Appalachian Council. Many focused their efforts on protecting the region's fragile and threatened environment, forming multistate networks such as the Southern Appalachian Forest Coalition, the Ohio Valley Environmental Coalition, and the Citizens Coal Council. More and more these organizations provided countervailing voices to the calls for growth at any cost, and they helped to draw public attention to the neglected problems of the region.

Nowhere was opposition to the old order greater than in the arena of the environment. Land, water, and forest resources had always shaped he quality of human life in the mountains, and this relationship was ven more evident at the end of the twentieth century. Nothing brought out ideological conflicts over the future of the region more than disputes about land use, and nothing reflected old disparities of income, health, and political power quite as vividly as efforts to enforce environmental regulations. As America confronted the challenges of global warming, energy dependence, and urban sprawl, the mountains of Appalachia once again provided a stage for national debate.

The pursuit of quick and easy profit and the insatiable demand for cheap energy and developable land fueled the physical devastation of the mountains at an even more rapid pace than earlier in the twentieth century. The rising cost of foreign oil and the escalating demand for electricity increased the price of coal and expanded production from surface mining across central Appalachia. The growth of regional service centers and shopping facilities, the spread of suburban neighborhoods, and the explosion of recreational and second-home development intensified pressure on traditional land use practices and threatened sensitive ecosystems. Efforts to preserve the landscape and to protect the natural environment challenged head-on the modern values of growth, individualism, and consumption. Environmental battles often pitted giant corporations against private individuals and community groups, but more often than not the conflicts cut across class lines. In Appalachia, as much as in any other part of America, the false choice between jobs and the environment divided communities, pitting personal economic interests against the common good, short-term gain against long-term survival.

Some of the most dramatic examples of this conflict over land use occurred in the wake of the heavy rains that periodically drench the region. One of the oldest and most diverse forest ecosystems in the world, the Appalachian range contains the headwaters for most of the streams that drain the eastern United States. Blanketed by a forest that includes more species of deciduous trees, other plants, and wildlife than any other region of North America, the Appalachian woodlands functioned for thousands of years as a natural sponge that filtered and harnessed water resources and moderated runoff and soil erosion. The impact of industrial development in this temperate rain forest during the past century left increasingly large portions of the landscape cutover by logging, strip

mined for coal and other minerals, and paved over for roads, housing, and suburban growth. Flooding became a major problem in mountain communities after the turn of the twentieth century and played a role in the establishment of the national forests in Appalachia during the 1920s, the TVA in the 1930s, and the special Appalachian development programs of the 1960s. The absence of logging regulations on private land, the lack of zoning ordinances, and the expansion of strip mining, however, led to persistent disasters from periodic flooding and revealed deep social and political anxieties about environmental protection in a growth-oriented economy.

The great Appalachian flood of 1977, for example, contributed to the passage of the federal Surface Mining Control and Reclamation Act, but the compromise legislation did little to slow the destruction of mountain hillsides, and the act contained within it the seeds of an even more devastating mining practice, mountaintop removal. Coming just five years after the Buffalo Creek disaster in Logan County, West Virginia, that killed 125 people, the April 1977 flood ravaged four Appalachian states, destroying more than 1,700 homes and displacing almost 25,000 residents. Striking fourteen counties in the middle of the coalfields, the record flooding was most severe along smaller tributary streams at the heads of hollows where strip mining was most intense, but state and federal officials were reluctant to attribute the loss of life and property to mining practices for fear of alienating the coal industry. Governor Julian Carroll of Kentucky acknowledged that silt and debris from mining might have clogged up the streams and reservoirs but claimed that "farming, housing development, and the wind, which scatters soil" had contributed equally to the flooding.[42] An intensive investigation by the group Appalachia—Science in the Public Interest later found that strip mining had played "a significant role" in the latest disaster, especially on tributary streams where heavy sediment and the absence of vegetation had caused floodwaters to rise faster and without warning.[43]

Twenty-five years later, residents of the coalfields still complained about the ineffectiveness of the 1977 legislation, and the region continued to suffer from the destructive effects of mining on mountain water resources. After another massive flood ripped through the central Appalachian coalfields in the spring of 2001, killing six and wrecking

4,600 homes in West Virginia alone, that state's governor, Bob Wise, ordered state authorities once again to investigate how much of the devastation was attributable to rapid runoff from mining and timbering sites. Ten months later, after flood waters had ravaged poor communities in McDowell County, West Virginia, for a second time in a year, reporters found that legislators had refused to attend the committee hearings that Wise had established and that state regulators had resisted federal requirements mandating flood runoff protection on mining sites for the past twelve years.[44]

The failure of regulators to enforce existing mining laws was tragically illustrated again in October 2000, when a 2.2-billion-gallon coal slurry pond in Martin County, Kentucky, collapsed, spilling 300 million gallons of sludge into two neighboring creeks and creating what the Environmental Protection Agency (EPA) called one of the worst environmental disasters ever in the southeastern United States. One of hundreds of coal slurry ponds constructed in the mountains to hold residue from washing coal before shipment, the Martin County impoundment was similar to the earthen dam that collapsed at Buffalo Creek in 1972. After the Buffalo Creek disaster, the Mine Safety and Health Administration had begun regulating the design and maintenance of these coal waste dams, which contained toxic heavy metals and which frequently leaked or overflowed. The Martin County impoundment, owned by a subsidiary of Massey Energy, broke through the abandoned mine over which it had been constructed and spewed toxic, black sludge up to eight feet deep along tributaries to the Tug Fork and the Big Sandy River, contaminating drinking water for eighty miles downstream. The spill was twenty times larger than the 1989 *Exxon Valdez* oil spill in Alaska. Investigators later determined that Massey Energy had failed to follow up on recommendations to repair the slurry pond after a smaller leak in 1994, and regulators at the Mine Safety and Health Administration had failed to enforce their own recommendations. Although the coal company claimed that the accident was an unfortunate "act of God" and denied legal responsibility for the disaster, a team of engineers appointed by the Mine Safety and Health Administration afterward to investigate the spill found sufficient evidence to issue citations against the Massey subsidiary for willful and criminal negligence. Before the investigation could be completed, however, the new George W. Bush administration replaced the team leadership and narrowed the scope of the investigation. A final report eventually cited the company for two minor violations and issued a fine of $100,000. A judge later reduced that fine to $55,000, but not before a member of the original investigating team, Jack Spadaro, revealed the government negligence and the cover-up of the violations to the national media. Spadaro, who had served as an investigator following the Buffalo Creek flood in 1972, was demoted from his position as head of the National Mine Health and Safety Academy and forced out of government for his criticism of the administration and the coal industry.[45]

Environmental disasters like those at Buffalo Creek and Martin County dramatized the growing tragedy of surface mining in the mountains and the unwillingness of most politicians to challenge the power of the coal industry or to confront the real costs of energy consumption in the United States. The lack of oversight by regulators, the collusion between the industry and political leaders, and the growing demand for coal as a replacement for foreign oil exposed the mountains and mountain people to some of the worst environmental devastation in the history of the region. Even the massive deforestation of Appalachia by the American logging industry at the turn of the twentieth century had not altered the landscape in the permanent manner that mountaintop removal did. By the turn of the twenty-first century, hundreds of miles of ridgeline in southern West Virginia, eastern Kentucky, southwest Virginia, and east Tennessee had been leveled, the tops of the mountains dumped into adjacent valleys, creating vast, desert-like plateaus. Nearly one thousand miles of streams had been buried, and entire ecosystems had been dismantled, the forests and wildlife permanently replaced by lespedeza and sandstone rubble. Almost five hundred mountains in the heart of Appalachia had been decapitated, and more were being lost every day.

Fearing that Appalachia was fast becoming a national sacrifice area in the quest for energy independence, mountain residents increasingly challenged mountaintop removal in the courts. In 1998 regional environmentalists, led by the Ohio Valley Environmental Coalition and the West Virginia Highlands Conservancy, filed a federal lawsuit claiming that the practice of filling mountain valleys with the overburden from mountaintop removal operations violated the Clean Water Act. A federal judge in southern West Virginia agreed and prohibited mining within one hundred feet of a flowing stream. When the decision was overturned upon appeal, KFTC filed its own lawsuit seeking to prohibit the Army Corps of Engineers from granting permits to deposit mine waste into valley streams. The same federal judge ruled against the coal industry again, but in 2003 the U.S. Court of Appeals for the Fourth Circuit overturned this decision as well, declaring that the Clean Air Act's prohibition of waste in streambeds referred only to "garbage and sewage" and not to mine waste.[46]

Opponents of mountaintop removal received little help from state and federal authorities, who were generally more concerned with protecting coal production even if they hoped to mitigate the harshest effects of mining on the land and the people. During the 1980s, the Reagan administration cut the Office of Surface Mining's budget for enforcement and directed a smaller staff to provide "regulatory relief" to the coal industry. President Clinton slashed the office's budget again, limiting inspection and enforcement staff by one-third and eliminating six field offices. Under George W. Bush, the agency became even less vigilant, replacing recalcitrant staff members such as Spadaro and focusing more on speeding up mining permits than on regulating the industry.[47]

The struggle to protect the mountains was left to a few environmental organizations and to individuals like Larry Gibson. The self-proclaimed "keeper of the mountains," Gibson became a popular symbol of resistance to mountaintop removal in Appalachia after he organized neighbors in his southern West Virginia community to fight the destruction of Kayford Mountain by Massey Energy bulldozers. Gibson's 50-acre farm, which had been in his family for almost two hundred years, stood like a defiant oasis in a dead sea, surrounded by 180,000 acres of one of the largest mountaintop removal operations in Appalachia.[48] The man and his land became a focal point for environmental activists in the region; he seemed a fitting heir to Dan Gibson, Jink Ray, and Ollie Combs.

Throughout Appalachia, citizens like Gibson continued to challenge the destruction of their communities by corporate greed and governmental neglect. In the 1980s residents of Bell County, Kentucky,

fought a decade-long battle to clean up the sewage and industrial waste being dumped into Yellow Creek by the Middlesboro Tanning Company and by a substandard municipal water treatment facility. Before winning a settlement among the City of Middlesboro, the tannery, and the EPA, the Yellow Creek Concerned Citizens confronted local and state officials, held rallies and demonstrations, and inundated federal agencies with letters of support from government officials in developing countries around the world who were concerned with the industrial pollution of streams in poor communities. Nearby, the Harlan County Concerned Citizens against Toxic Waste forced a Texas company to clean up a former industrial site polluted with cancer-causing PCBs that was then being used as a mobile home park. After toxic solvents and waste oils were found to have fouled at least fourteen drinking wells in the community of Dayhoit and to have leaked into groundwater a mile away, the company agreed to remove contaminated soil and to pay for the construction of a new water line.[49]

One struggle raised tensions between two states when economic activities in North Carolina destroyed a river flowing into Tennessee and may have contributed to high rates of cancer in a community lying along the border. Since 1906, the Champion Paper Company had provided more than two thousand jobs in Haywood County, North Carolina, at its Canton paper mill, but the company dumped tons of carcinogenic pollutants into the Pigeon River, effectively killing the once clean-flowing mountain stream and turning it dark brown below the mill. By the mid-1980s, residents of the small Cocke County, Tennessee, town of Hartford, downstream from the paper mill, had started to notice a disproportionately high rate of deaths from cancer, especially among men who swam or lived near the river. The town had long been nicknamed Widowville, and an informal survey of the town's 500 residents revealed an alarming 167 cancer cases. In 1985 local residents formed the Dead Pigeon River Council to pressure Tennessee and North Carolina to enforce water quality standards and to clean up and restore the Pigeon River. In federal court, the EPA became involved and refused to renew operating permits for the Champion plant unless the problem was fixed. Relationships between the two states became contentious. North Carolina and Haywood County feared the loss of jobs; Tennessee, Cocke County, and the EPA demanded that the river be brought up to Tennessee water quality standards. Champion finally agreed to modernize its Canton plant, and in 1990 the EPA issued a new permit. The company later consented to pay Cocke County property owners $6.5 million in compensation and to endow environmental education projects in the area. Following the agreement, however, the Connecticut-based company sold the North Carolina plant and moved its production facilities abroad. A much-reduced labor force continued to operate the Canton mill as a partially worker-owned company, Blue Ridge Paper Products. After the installation of new equipment and bleaching processes, water quality improved, and fish and other wildlife returned to the river. Within a decade a thriving river-based recreational industry had developed in Hartford, and the community was on the road to recovery.[50]

Struggles for environmental justice were common across Appalachia at the end of the twentieth century. The region's poverty, politics, and long history of industrial exploitation subjected mountain communities to disproportionate threats from health hazards and environmental damage. Local citizens' groups organized to fight acid mine drainage, pesticide contamination, toxic landfills, timber clear-cutting, nuclear dump sites, waste incinerators, hydroelectric dams, and other threats. As urban Americans gained a greater awareness of the dangers of waste disposal in their own environments, low-income rural areas in Appalachia became prime targets for commercial landfills, waste incinerators, and toxic storage facilities. The availability of comparatively cheap land, abandoned deep mines, lax environmental regulations, and receptive local politicians made it cost effective for large companies to haul solid waste from cities in the Northeast to dump sites in rural communities in Appalachia, especially in Virginia and West Virginia. Citizens' organizations such as the Blue Ridge Environmental Defense League challenged the landfill developers in court and often succeeded in limiting the volume of the landfill, if not defeating the project itself.

Less confrontational organizations, often supported by government and business leaders, emerged as well to improve environmental quality, reduce unsightly trash, and educate children about local ecosystems. Groups such as Eastern Kentucky PRIDE, created in 1997 by U.S. Representative Hal Rogers and Kentucky Department of Natural

Resources secretary James Bickford to promote "personal responsibility in a desirable environment," energized schools, parents, civic organizations, and businesses to clean up creeks, rivers, and highways and to protect the natural beauty of their neighborhoods. Eastern Kentucky PRIDE mobilized thousands of volunteers to clean up streams and illegal trash dumps, and it encouraged the building of outdoor classrooms, greenhouses, and nature trails in almost every county in southeastern Kentucky. With the assistance of federal grants to improve water quality, the organization helped to install over seven thousand septic systems and to modernize sewage treatment facilities serving over twenty thousand homes. Most of the streams of eastern Kentucky had long since ceased to be healthy and viable as a result of mine drainage, straight pipe sewage disposal, and other nonpoint pollution. Eastern Kentucky PRIDE hoped to restore water quality and to create a more attractive environment for economic development by advocating personal responsibility for waste and educating children to prevent pollution in the future.

Ultimately, rising concern about the environment, especially among middle-class groups like Eastern Kentucky PRIDE, reflected a growing cultural crisis in Appalachia over land use and its relationship to traditional values and identities. As a result of the expansion of highways, retail centers, industrial parks, and other indicators of modern sprawl, many mountain communities now faced the same dilemmas of economic growth that challenged other areas of the United States, such as how to protect open space, how to preserve communities, and how to provide meaning to life in a changing world. In Appalachia, however, the land had always shaped human relationships and personal identity. It had always defined cultural meaning. The loss of farms and of farm life, the enclosure of the forests for private use, the pollution of streams, the uprooting of families, and the congestion of people in once quiet places were for many Appalachians high costs to pay for material convenience and comfort.

The environmental and cultural consequences of uncontrolled growth were evident in both urban and rural Appalachia. Mountain families who lived near metropolitan centers on the perimeter of the region and those who resided in the larger towns and growth centers witnessed with mixed feelings the spread of housing developments, shopping malls, restaurants, motels, and chain stores. Modern services provided access to consumer products and amenities, but the service economy created few well-paying jobs, and the distance between home, shopping, school, and work left little time for community and family life. Suburban sprawl converted limited agricultural bottomland into housing and retail developments, and extensive paving and floodplain construction increased flood levels and groundwater contamination. The expansion of metropolitan centers such as Atlanta, Charlotte, and Knoxville into adjoining rural counties and the spread of tourism and second-home development deeper into coves and hollows increased traffic congestion, property values, and taxes in once remote communities. Rural residents, who had benefited least from the new economy, now faced displacement, the loss of their land, and the disappearance of their way of life.

For some Appalachian communities, the growth of tourism during the last decades of the twentieth century provided a hopeful alternative to environmentally destructive industries such as mining and timbering, but recreational development brought its own problems. Traffic congestion, visual pollution, low-wage jobs, and increased demand on local public services tempered the economic benefits of tourism. Megadevelopments associated with theme parks, outlet malls, and internationally based hotels at places like Pigeon Forge and Gatlinburg, Tennessee, not only transformed these communities entirely but leaked many of the dollars spent by tourists back to absentee corporate owners. Outdoor recreational activities associated with the free-range riding of motorcycles and all-terrain vehicles rutted trails, polluted streams, and disturbed wildlife. The unregulated spread of rental cabins and second-home communities along ridgetops and hillsides altered mountain ecosystems and views, threatening the landscape that had sustained local culture and attracted tourists to the region in the first place.

The growing popularity of ecotourism and heritage tourism, on the other hand, contained the potential for building an alternative economy, one that promised greater monetary returns for local residents, the preservation of rural traditions, and the protection of sensitive natural resources. At least 115 million Americans lived within a

day's driving distance of Appalachia, and the region's water, forests, and cultural resources increasingly appealed to urban hikers, campers, kayakers, fishermen, and families seeking relaxation and cultural enrichment. In parts of the region less scarred by environmental destruction, outfitters, bed and breakfast accommodations, restaurants, and other small businesses multiplied to serve urban tourists seeking outdoor adventure. Festivals celebrating mountain music and crafts and fairs promoting local farm products, homecomings, historical reenactments, and community gatherings of all kinds brought dollars into local economies, supported local shop owners, and sustained a sense of local pride.

In some communities struck hard by the decline of manufacturing and mining jobs, ecotourism and other community-based forms of small business development became important strategies for renewal. Community leaders in western North Carolina, for example, built on that area's long history of handcraft production to organize independent artists into a marketing network that was environmentally sustainable and took advantage of the international economy. Handmade in America, as the effort was called, not only provided guidebooks and other marketing tools for mountain artists, galleries, inns, farmers' markets, and historical sites in the Carolina Blue Ridge but developed technical assistance programs that helped small towns identify local assets, share community building strategies, and promote entrepreneurship. Such programs sought to capture the growing suburban interest in handmade products and alternative services and to channel wealth back to local communities and producers, reversing the historical pattern in which assets flowed out of the mountains. These efforts attempted to build distinctive and sustainable communities that enhanced the human and natural resources of the region. They sought to turn the commodification of the land into something that could preserve the land and the cultural meanings that derived from close relationships to that land.

Thus, in an ironic way, Appalachia at the turn of the twenty-first century was a microcosm of the contradictions confronting modern American life. The flood of suburban tourists seeking to renew their relationship with the natural world passed young people along the highway leaving the mountains in search of better lives in the cities from which the urban refugees had fled. Flatland exiles seeking to possess a piece of the mountains and to control the views from the ridgetops clashed with local families who resented fence lines and no-trespassing signs and who struggled to find work and adequate housing. Insiders and outsiders alike consumed the electricity generated by coal from surface mines that destroyed forests and decapitated the mountains forever. Everyone searched for some connection to place. Some hoped to find it in the new Appalachia. Others clung to the memory of the old.

On the morning of August 13, 2007, fifty demonstrators gathered outside the downtown Asheville, North Carolina, branch of the Bank of America to protest the bank's investment policies in Massey Energy and in Arch Coal, two of the largest producers of surface-mined coal in Appalachia. Protesters hoped to draw public attention to Bank of America energy investments that not only promoted the use of coal, the largest single contributor to global warming, but supported the destructive practice of mountaintop removal that was devastating the land and way of life in the heart of the mountains. In the weeks ahead, demonstrations would spread to other Bank of America branches and even to the bank's annual investors' conference in California, where protesters also criticized company support of Peabody Energy, whose Black Mesa mine in Arizona had damaged the land and water of indigenous Navajo and Hopi communities. Some of the same environmental activists who confronted the Bank of America had helped earlier to sideline plans for two coal-fired electricity-generating plants being proposed for western North Carolina, but at the time of the Asheville demonstration, plans were on the books for the construction of almost 160 more coal plants nationwide.[51]

The event in Asheville, however, symbolized an important change in the way America understood Appalachia. Asheville was an unlikely place to find demonstrations against the coal industry. That no coal was mined within a hundred miles of the old Blue Ridge town, which had become a prosperous cultural and recreational icon of the new southern highlands, signified both the acceptance of a broader regional identity since the 1960s and a shift in popular perceptions of regional distinctiveness. No longer was Appalachia defined primarily by poverty and cultural backwardness; the region now had become a

symbol of the larger dilemma of people's relationship to the land and responsibilities to each other. Appalachians and neo-Appalachians alike increasingly acknowledged that the quality of life in the mountains was inexorably tied to the use of the land and that Appalachia's problems were both systemic and universal. The Appalachian experience reflected the social, environmental, and cultural consequences of unrestrained growth, and it echoed the voices of powerless people struggling to survive in a changing world. Saving Appalachia now meant confronting the larger structures of global injustice as well as challenging local power brokers, corporate greed, and government apathy.

No one articulated more clearly the plight of the mountains and mountain people in the new era than Larry Gibson. The hero of activists in the heart of the region who were fighting mountaintop removal and the expansion of coal production that was destroying forests, streams, and the future of communities, Gibson spoke for another generation of mountain families who had witnessed progress, the coming of government programs to uplift mountain people, and the tapping of mountain resources to better connect Appalachia to the mainstream economy. Standing on the precipice of the three-hundred-foot cliff that marked the boundary between his farm and the strip mine that had destroyed his mountain, he lamented what had been lost. "We have a history here," he told a group of visitors as he picked up a broken miner's lamp that he had discovered in his surviving woods.

> We have a conversation with the land here. The land will talk to us. It will tell us things. Nothing comes easy for people in the mountains. This is a symbol of what the history of the mountains is about. We are a little worn. We are a little bent. We are a little broken. But we are real, and we are here. And we are tired of being collateral damage, a sacrificial zone for rich people and other people to be comfortable in their life. . . . This is life for us. We don't have a choice here in the coalfields. We are either going to be an activist or we are going to be annihilated. And I am tired of seeing my people being annihilated. So we are fighting back. It's the only thing that we have.[52]

In his lifetime, Gibson had witnessed the rediscovery of the moun-
ıs by the national media, the arrival of idealistic poverty warriors,
. the enactment of a special program to promote economic develop-
ıt in the region. He had traveled the new highways, visited the new
pitals, and placed his children on the buses that carried them to the
/ consolidated schools. Many of his neighbors had left for jobs in
new urban centers, where they could find shopping centers, hous-
developments, and all of the material goods of modern life. For
son and many others, growth had indeed come to the mountains,
h its uneven benefits and hidden inequalities. But whether or not
: growth had fulfilled the promise of the Great Society was a matter
lebate. In that respect, the uneven ground of Appalachia was no
ger the other America. It *was* America, and the region's uncertain
:iny stood as a warning to the rest of the nation.

NOTES

INTRODUCTION

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