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Mountains of Disappointment: The Failure of State-Led Development Aid in Appalachia

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Abstract
In 1964, President Lyndon B. Johnson declared "war" on poverty. One component of the ensuing cadre of government agencies and initiatives was the Appalachian Regional Commission (ARC), charged with overseeing the development of the impoverished region stretching from southern New York to northern Alabama. Although ARC is now one of the longest-running regional development agencies, it has largely failed in its goals to develop the region, and much of Appalachia remains mired in poverty. This paper examines the reasons why the ARC and domestic, state-led development aid have failed. I find that the ARC has failed to achieve its goals for the region due to its inability to perform rational economic calculation and as a result of issues of political economy.

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I. Introduction

A 1964 report to President Johnson described Appalachia as a "region apart" from the rest of the United States (PARC 1964, p. XV). Stretching from New York to northern Alabama, the region containing the Appalachian mountain range is diverse in its industry, topography, and people. Despite its abundant resources, however, much of Appalachia is plagued by extensive poverty. As of 2011,

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average per capita income in some areas amounted to just over $16,000, a mere 40 percent of the national average (U.S. Census Bureau 2013). Average poverty rates in portions of Appalachia reached 165 percent of the national average between 2006 and 2010, and unemployment rates in were 130 percent of the national average (ARC 2013b, 2013c).

Hypotheses as to why this region has failed to develop economically abound and mirror the explanations cited for poor growth in lesser developed countries. But unlike its underdeveloped counterparts, the region has a stable government and rule of law, access to water and transportation, and the climate is not conducive to disease. The maladies of Appalachia have been attributed to low educational attainment, poor health care, inadequate infrastructure, extractive institutions, and resource curses (e.g., coal mining). Others contend the persistent poverty of Appalachia is the result of self-selection. However, there are several counties in Appalachia with a history of economic success. Bath County, Virginia, to give but one example, has long capitalized on its natural features. From the county's earliest days, instituted policies allowed entrepreneurs to utilize the area's comparative advantages. As a result, by the early 1800s, those in the area employed the nearby hot springs to attract more than 6,000 visitors annually. Tourism in the county continues to be an important part of the local economy and generates more than $225 million every year (Bath County Government 2013a, 2013b).

Just as international governments and other organizations have sought to generate economic development abroad, the U.S. government has looked to build up the Appalachian region. Since 1965, the Appalachian Regional Commission (ARC) has spent more than $13.5 billion (more than $32.7 billion in 2013 dollars) in the form of "domestic development assistance" (ARC 2011b, p. 120). The ARC has worked to create roads, increase educational opportunities, improve health care, provide financing and other investment assistance, and support a myriad of other programs. Despite these initiatives, much of the Appalachian region, especially central Appalachia, lags behind.

In this paper, I examine the reasons for the ARC's failure to systematically develop the Appalachian region. I find that the failure of its projects is ultimately the result of two distinct but complementary mechanisms—*planner problems* as a consequence of insufficient knowledge and inability to perform rational economic calculation, and *perverse incentives* as a product of issues of political economy. Using this analysis, I explain why past efforts to develop the region have failed to meet their desired goals and why present and future projects are unlikely to succeed. I focus on the efforts of the ARC and the Appalachian region for two reasons. First, as stated previously, the Appalachian region is one of the poorest regions in the nation and has a long, well-documented history of economic hardship. Second, the ARC, in addition to being one of the longest-running regional planning agencies in the United States, maintains an exclusive focus on the Appalachian region. These factors provide a unique opportunity to examine the effectiveness of long-term domestic development aid.[1]

The rest of the paper proceeds as follows. Section II provides a concise overview of the history of development aid in Appalachia. This overview allows us to examine how efforts in the region have evolved over time and to analyze trends in income and other factors throughout the period. Section III discusses the failure of development aid and is divided into two subsections. Section III A discusses the limited knowledge of development planners and examines the problem of economic calculation in implementing top-down development programs. Section III B investigates the political economy of development planning and examines the incentives faced by the ARC, the U.S. government, and aid recipients, and explores how these issues contribute to the failure of development aid. Taken together, the theory provided in this section offers an explanation of the poor performance of past and present development efforts in the Appalachian region. Section IV concludes.

II. A History of Development Aid in Appalachia

As part of the larger "war on poverty," President Johnson called for the President's Appalachian Regional Commission (PARC) to assess the region's problems and recommend programs to improve the area's economic conditions. After its evaluation, the PARC returned its findings, citing numerous problems within Appalachia. The commission noted large income gaps between the region and the rest of the United States (PARC 1964, p. 1), noting that one-third of all Appalachian families lived below the poverty line (PARC 1964, p. 3) and income in some counties was a mere 44 percent of the

[1] To provide a complete survey of all the relevant literature on development aid is beyond the scope of this essay and has been undertaken elsewhere. See Easterly (2001, 2006, 2009), Coyne (2013), Mathers (2012) for thorough examinations of literature on foreign and domestic development aid.

national average (PARC 1964, fig. 3A). Per capita saving in the region was 55 percent of the national average (PARC 1964, p. 14, fig. 10), and unemployment rates in the region's top businesses were 139 percent of the rates in comparable industries in other areas (PARC 1964, p. XVII, fig. 2). The PARC also cited deficits in education. A large portion of the Appalachian population had failed to obtain even a small amount of education. In Appalachian Kentucky, for example, over 22 percent of adults had fewer than five years of formal schooling (PARC 1964, p. 80, table C-4).

As a result of these findings, the PARC proposed four priority areas of investment. First, the commission recommended an expansive new highway system to increase access to the region. Stating that "developmental activity cannot proceed until the regional isolation has been overcome," it recommended the creation of new airports throughout the region as well as the construction of 500 miles of local access roads (PARC 1964, p. 34). Second, the commission called for a remedy to the "problems and potential of Appalachian water" (PARC 1964, p. 36). It recommended accelerated construction of water resource facilities as well as improvements in sanitation (PARC 1964, p. 37).

Third, the commission called for a greater portion of the Appalachian economy to be based on natural resources (PARC 1964, p. 39). It proposed an increase in pasture land, enhanced farming, expansion of the timber industry, increased mining of coal and other minerals, and the use of Appalachia's natural features to build up tourism throughout the region (PARC 1964, pp. 39, 42, 44). Fourth, the commission urged a massive buildup of human capital, stating, "Programs must also be initiated which are focused more directly upon the people themselves" (PARC 1964, p. 48). The PARC recommended increased efforts in education and vocational training, as well as increased employment and welfare services (PARC 1964, p. 53). Lastly, the PARC recommended the creation of a new federal agency, the ARC, which would serve as a focal point for coordinating actions between involved state, local, and federal agencies. The agency would consist of a board of directors, including representatives from all member states and federal organizations, state and federal liaisons, and technical staff (PARC 1964, p. 60, fig. 16).

Since the PARC submitted its report in 1964, many of the suggested projects, as well as numerous others, have been implemented throughout the Appalachian region. The ARC was created in 1965 and received a budget of over $1 billion (approximately $7.4 billion in 2013 dollars) for the year in order to launch its programs. Although funding for the ARC has varied from year to year, the ARC has continued to receive generous funding from the federal government as well as contributions from state governments. By 2003, the ARC's federal budget amounted to more than half a billion dollars annually. In total, since 1965, the ARC has received more than $13.5 billion in federal support (more than $32.7 billion in 2013 dollars [ARC 2011b, p. 120]).

The ARC has used these funds to develop and implement thousands of projects in eleven separate program areas. The ARC supports "asset-based development" programs to capitalize on the region's natural features, "community infrastructure" programs to develop water resources (ARC 2014), and a myriad of educational initiatives. The ARC has implemented numerous programs relating to various types of energy, as well as plans aimed at fostering entrepreneurial activity, expanding international trade, and encouraging leadership development and capacity building. It supports initiatives to expand health care and telecommunications, provide workforce training, increase tourism, and support the Appalachian Highway Development System, a program aimed at increasing the number of highways and access roads in the region (ARC 2014).

Despite these efforts, the results of development in Appalachia have been mixed at best. Although some regions (mainly those around major cities) have experienced growth, much of the region still lags behind. Moreover, many gains have not been sustained. In the mid-1980s, for example, central Appalachia (eastern Kentucky, western Virginia, and southern West Virginia) saw a decline in the income gains made in the 1970s (Widner 1990, p. 300). Similarly, the region as whole realized some gains in the 1990s in income and employment, but by 2010, Appalachia had lost *all* of the new jobs realized in the prior period. From 2000 through 2008, the region saw the elimination of 15 percent of its farming and forestry jobs and nearly 25 percent of its manufacturing jobs (ARC 2011a, p. 3).

As overall poverty has declined in the United States, so too has the overall poverty level in Appalachia. However, the gaps in income, education, and economic growth between Appalachia and the rest of the country have persisted over time, and the region continues to realize levels of poverty that in some cases greatly exceed the national average. By 2009, per capita income in Appalachia was still 25 percent lower than the national average, and in central Appalachia, per capita income was 47 percent lower than the national average (ARC 2011a, p. 2). Per capita investment income for the region is 30 percent lower than the national average, and in some areas, per capita investment income is only 43 percent of the national average (ARC 2011a, p. 2).

Unemployment in the region remains high. Two-thirds of the counties in Appalachia continue to experience unemployment rates higher than the national average. Only 35 of 420 counties, a mere 8.3 percent, experienced positive employment growth from 2007 through 2010 (ARC 2011a, p. 1). The region has also experienced mass outward migration, with 183 Appalachian counties, nearly 45 percent of the region, experiencing net population loss from 2000 through 2009 (ARC 2011a, p. 2). Appalachia continues to lag behind in education and overall health. In central Appalachia, only 12 percent of adults have a college degree compared to 28 percent nationally, and the region has significantly higher rates of cancer, heart disease, and diabetes than the rest of the United States (ARC 2011a, p. 2).

Extensive efforts have been made to improve the economic and overall well-being of Appalachia. Although some areas have experienced improvements, the region continues to lag behind the rest of the United States and, in many cases, residents of Appalachia have seen little improvement in their quality of life. What is unclear is *why* these efforts in Appalachia have consistently failed. Given the massive undertakings of the ARC, state and local agencies, and nongovernment organization (NGOs), and the extensive programs implemented throughout the region, why haven't these efforts brought the region out of poverty?

III. The Failure of Domestic Development Aid

The failure of state-led development aid in Appalachia may be seen as the result of two separate, but complementary mechanisms: (1) the inability of the ARC and other government agencies to engage in rational economic calculation, and (2) the political economy of domestic aid and the incentives faced by those giving and receiving assistance. I examine each of these forces in turn.

A. The Knowledge Problem and Economic Calculation in Development Aid

Understanding the failure of state-led development aid in Appalachia requires a deeper knowledge of state-led planning in general. More specifically, it demands an appreciation of economic calculation. Stated simply, economic calculation is a necessary tool to solve the problem of how best to allocate scare resources. Mises (1922, 1927, 1944, 1949) explains the impossibility of economic calculation under socialism and the unavoidable failure of a centrally planned economy. Boettke (2001, p. 31) summarizes Mises's argument succinctly: "Without private property in the means of production, there will be no market. . . . Without a market . . . there will be no monetary prices. . . . Without monetary prices reflecting the relative scarcity of capital goods, economic decision-makers will be unable to rationally calculate the alternative use of capital goods." It follows that the market process, within a price system that reflects relative scarcities and with profit and loss signals that encourage the endogenous discovery and correction of past errors, works to drive resources to their highest-valued use.

Hayek (1935, 1940, 1945, 1988) argued that it is impossible to construct a rational economic order through central planning by a singular individual or small group, because it requires the knowledge of many individuals. Market competition is an entrepreneurial discovery process in which individuals possess distinct knowledge of "time and place" (1945, p. 80) and interact with one another. It follows for Hayek that no central body could ever obtain the necessary information to engage in efficient economic calculation because it lacks a comparable mechanism to the discovery process of the marketplace.

Although Mises and Hayek sought to address the issues of socialism, this same logic explains the ARC's inability to allocate resources in a way that achieves its goals of regional development. A common claim of the ARC's proponents is that it has developed a feedback system in which those at the top—federal officials and those making funding decisions—are made aware of the needs and abilities of those at the state and local levels and that the ARC is better able to identify miscalculations and make needed changes. In essence, through trial and error, the ARC is supposed to undertake projects, evaluate them through the established feedback mechanisms, and reallocate resources appropriately.

Despite this organizational structure, access to input prices for many of its projects, and extensive data, however, the ARC stills lack crucial knowledge of *where* to locate new projects, *what* projects to implement, and *which* projects are most likely to succeed (Seshadri and Storr 2010). In a market setting, the profit and loss mechanism would answer these questions. The ARC's legacy of failed projects demonstrates its inability to engage in effective economic calculation and produce the desired outcomes. Consider the ARC's expansive program of "entrepreneurial initiatives." Grants from this program look to foster entrepreneurial activity by providing funds for individuals to start new firms, educate and train employees, and offer other support to struggling businesses (ARC 2001b, p. 33). Although many projects have led (at least temporarily) to the creation of new businesses, many firms receiving grants for entrepreneurial activities have suffered financial losses or ceased to exist after ARC funding stopped. These financial losses and business failures are a direct result of failing to engage in rational economic calculation, and they indicate that many ARC-funded businesses have been unable to provide the goods and services people desire. The ARC found that the inability to attract customers was "one of the most frequently noted problems. . . . This may reflect lack of sufficient attention to, or inadequate analysis of market demand*"* (ARC 2001b, p. 41).

Absent the mechanisms of private property, prices, and profit and loss, the ARC is unable to consistently "pick winners" when offering grants. Entrepreneurial activity arises in the market when an individual discovers a way to create a new good or service or improve an existing one. Entrepreneurs are rewarded for these efforts by profit. Losses indicate that society does not value a particular good or service as much as others and that those resources should be allocated elsewhere. When ARC officials make entrepreneurship grants without the market's guidance, they are unable to perform such calculations and, therefore, they invest in projects that do not meet individuals' demands. The result is the aforementioned issues ARC grantees face of finding customers for their goods and services.

The ARC's inability to engage in rational economic calculation is further evidenced in its efforts on entrepreneurship by the lack of "complementary goods"—goods and services that are consumed together. In addition to discovering what goods and services individuals want, entrepreneurs must also take into account what *other* goods and services are required to make their product desirable (a manufacturer of notebooks, for example, would only want to create his product if pens and pencils were available as writing utensils). In a market setting, the feedback of profit and loss allows resources to be continuously reallocated and directs entrepreneurs toward producing the correct mix of goods and services. A central planner like the ARC, however, does not rely on such mechanisms. As such, it commonly misses these messages and is often unable to identify or produce the needed complementary goods. Indeed, ARC reports on its entrepreneurship programs state, "The ability to attract capable staff . . . [was a] problem cited in multiple sites. . . . Both evaluation and attracting and retaining staff were problems. . . . The two problems exacerbated each other as staff turnover erased any institutional memory that might have countered the lack of written information" (ARC 2001b, p. 42). Although the ARC may have chosen to invest in otherwise sound businesses, they were unable to uncover the required complementary goods—namely, skilled labor—in order to make the ventures successful.

A second example of the ARC's failure to effectively engage in rational economic calculation may be seen in the commission's continued work on the Appalachia Highway Development System (AHDS). The original PARC report proposed an expansive investment in highways in order to open the region to commerce, reduce isolation, and prevent outmigration. "The remoteness and isolation of this region," the PARC report stated, "lying directly adjacent to the greatest concentrations of people and wealth in the country, is the very basis of the Appalachian lag" (PARC 1964, p. 28). Congress echoed these sentiments, stating that "the heavy concentration on road construction is to accomplish not just opening up Appalachia . . . the committee believes that commuting [on these roads] offers a strong, indeed perhaps the only alternative to a commuting pattern of out-migration" (quoted in Widner 1990, p. 297).

Although the ARC has added miles to the highway system every year, the project has encountered numerous difficulties. The original highway program had a six-year time horizon and $1 billion to complete its objectives (GAO 1971, p. 9). Nearly fifty years later, however, in 2013, the AHDS project was still underway and has been allocated billions in funds (ARC 2011b, p. 141). As of 2011, just over 3,000 miles of highway and access roads were eligible for AHDS funding. Twenty percent of these miles were incomplete, and nearly 15 percent were not open to traffic (ARC 2011b, p. 142).

Further evidence of the ARC's failure to engage in rational economic calculation is that the AHDS has failed to achieve many of its stated goals: to help those in the poorest areas gain access to outside areas, to increase rural commerce, and to decrease outmigration. In fact, the program may have had the opposite impact in some cases. A report by the Government Accountability Office, to give but one example, found that between 1971 and 1975, the traffic in some counties had actually decreased, meaning *fewer* individuals brought tourism and other economic activities to the area. Some West Virginia counties, for example, saw traffic decrease by nearly 25 percent following the construction of the new highways (GAO 1976, p. 16).

The program has also had little to no impact on outmigration. A 2011 report from the ARC described Appalachia's outmigration as "among the worst in the nation" and expressed concern regarding the migration of Appalachia's "prime age" workforce. From 2000 through 2009, 183 Appalachian counties, nearly 45 percent of the region, experienced net population loss (ARC 2011a, p. 2). The ARC views this loss as a case of "brain drain," where those who are most likely to generate economic activity leave the area in pursuit of better opportunities. Those who remain in the area, faced with smaller markets and shrinking labor demand, experience continued and worsening poverty.

In addition to the aforementioned technical calculation errors involving the AHDS, the project also met with a lack of complementary goods. Many of the Appalachian states were unwilling or unable to provide the necessary means to complete projects in their states, leaving many sections of road incomplete and unconnected to the interstate, and many areas remained isolated (GAO 1976, pp. 14–18). In addition to the lack of needed assistance from the state institutions, relocation issues further hindered the AHDS project. Federal regulations require relocation assistance for persons and businesses displaced by federal-aid highway programs (GAO 1976, p. 25). In many cases, however, such assistance was unavailable. An analysis by the GAO concluded that several projects in Kentucky and West Virginia had been delayed because the states were unable to provide safe and sanitary housing to displaced individuals (GAO 1976, p. 25).

These are but two examples of the ARC's failure to achieve its goals, but they demonstrate a much broader point—the ARC cannot plan development for the region. The examples provided here offer a clear demonstration of how the ARC cannot engage in rational economic calculation. Absent the signals provided by the market, the ARC has engaged in a continuous misallocation of resources.

B. The Political Economy of State-Led Development Aid

Although critical, the ARC's inability to perform rational economic calculation is not the sole impediment preventing the organization from achieving its goals. To understand the ARC's obstacles, we must first gain an appreciation of the economics of bureaucracy. Existing literature indicates that in the absence of profit and loss signals, success in a bureaucracy is measured through the size of discretionary budgets and the number of subordinates (Niskanen 1971, 1975; Migué and Bélanger 1974). As a result, bureaus like the ARC do not vie for profits in the private market, but instead compete with other agencies for government resources. The possibility of securing greater windfall profits, in the form of larger budgets, more personnel, and so on, creates incentives for bureaus to engage in intense rent-seeking behavior to obtain as much governmental funding as possible.

The ARC has succeeded in increasing its budget and personnel. In 1985, the ARC's budget was about $330 million (in 2012 dollars); by 2012, that number had increased to almost $550 million annually (ARC 2011b, p. 120). The ARC's initial charter called for the organization to consist of a federal co-chair and the nine governors of each of the Appalachian states. As of 2012, the ARC consisted of nearly 100 staff as well as partners within 73 distinct "development districts" and ten federal agencies (ARC 2013a; Development District Association of Appalachia 2013). In addition to increased personnel, the ARC has also greatly expanded its programming. As noted above, the initial PARC report called for programs to be implemented in four broad areas. By 2012, the ARC approved and funded 418 separate projects in eleven distinct areas—asset-based management, community infrastructure, education and training, energy, entrepreneurship and business development, export and trade development, health, leadership development, telecommunications, tourism, and transportation. Although the number of projects has varied from year to year, it has increased over time. By the end of 2011, after nearly fifty years in operation, the ARC had approved and funded more than 27,500 initiatives (ARC 2011b, pp. 124–38).

The ARC's bureaucratic structure has further implications for the allocation of resources and for economic development. Since the profit and loss system is absent in a bureaucracy, resources are allocated by following the rules laid out by the government (Mises 1983, p. 50). It follows that there is little or no need to minimize costs or work to please "customers." The results are a decline in entrepreneurial activity, and resource allocation via political mechanisms in lieu of private ones (Hayek 1946). Since resources are allocated politically, it follows that those who receive resources may not be the ones who most need or desire them, but those who have a comparative advantage in rent-seeking.

Several cases throughout the ARC's history show these tendencies. When the ARC was created in 1965, it was intended to serve the ten states within the Appalachian mountain range. Recognizing the potential for increased funding, three other states (New York, South Carolina, and Mississippi) lobbied the federal government to have counties placed under the ARC's umbrella (Widner 1990, p. 293). By 1999, these three states had received more than $2.3 billion in aid even though these regions are relatively better off compared with Appalachia's other regions (Riepenhoff and Ferenchik 1999).

The emphasis on political clout over need and efficiency regarding ARC aid has been widely reported. While the ARC's stated goals are to improve the lives of the region's poor, the commission has been described as a "governors' slush fund" supplying capital for numerous projects from a multimillion dollar summer practice field to a $75,200 bronze statue of Jesse Owens (Ferenchik and Riepenhoff 1999). One study of more than 20,000 ARC projects from 1966 through 1998 found that none of the five counties that received the most money had *ever* been considered "distressed."[2] Of the twenty counties that received the most ARC funding, only two met the commission's criteria for distress. One county that had been labeled distressed since 1965, Hale, Alabama, had received no funding from 1960 through 1998, while New York, Pennsylvania, and South Carolina, states in which few or no counties met the standards for distress, received more than 25 percent of all ARC funds (Riepenhoff and Ferenchik 1999). But the incentives created by the ARC's bureaucratic structure do not only apply to the agency and its political associates. Indeed, the ARC's numerous projects may incentivize individuals in Appalachia to *remain* in poverty as opposed to overcoming it. As Buchanan (1975) points out, those engaged in giving aid may induce recipients to become dependent on donated funds. As noted previously, as a bureaucracy expands, the costs of

[2] *Distressed* counties are those counties that rank in the worst 10 percent of the nation's counties. Historically, these counties have unemployment rates 150 percent of the national average and maintain a per capita income which is two-thirds of less or the national average (ARC 2005: 44).

entrepreneurship increase. As the bureaucracy increases the cost of entrepreneurial activity, living "on the dole" has become a low-cost way for individuals in Appalachia to earn a living. While other types of income are lower in the region (gross earnings, investment income, etc.), per capita transfer payments in Appalachian New York, Pennsylvania, and West Virginia are about 25 percent higher than the national average. In Appalachian Kentucky, transfer payments are about 35 percent higher than the national average (ARC 2011c, p. 1).

The numerous ARC initiatives combined with other federal programs further increases the incentives for individuals in Appalachia to remain in poverty. In some cases, these incentives have far-reaching consequences. In December 2012, the head of one literacy program for children in Appalachia discussed how parents had withheld their children from school and other educational programs in order to obtain Supplemental Security Income (SSI) for children with learning disabilities (Kristof 2012). An ARC report on the effectiveness of its educational initiatives noted problems with parental involvement, stating, "[Program directors] noted the difficulties associated with getting intended beneficiaries to participate. . . . some parents were reluctant to engage in any activities associated with their child's school" (ARC 2001a, p. 4) This aid dependency may be observed in businesses as well as individuals. In a survey conducted by the ARC on recipients of its entrepreneurship grants, over 56 percent of the organizations polled stated they were "[significantly more willing] to seek outside state and federal funding for entrepreneurial assistance projects after completion of their ARC project," and more than 43 percent stated they were much more willing to seek assistance from local funds (ARC 2001b, p. 41)

IV. Conclusion

The "war" on poverty and the creation of the Appalachian Regional Commission offered many a new hope for a region long plagued by unemployment, poor health, and poverty. Today, some parts of the region have improved, but many in Appalachia remain destitute. Further, the development the region has experienced cannot be conclusively attributed to the ARC's efforts and may well be the result of the overall growth throughout the United States. One GAO study of ARC stated plainly, "We were unable to find . . . a strong causal linkage between a positive economic effect and [the ARC's] development assistance" (GAO 1996, p. 2).

The preceding analysis has several implications. First, this work has shown why the Appalachian region will likely continue to realize less than desirable economic growth. The ARC's inability to engage in rational economic calculation, combined with the tendencies of bureaucracy, implies perpetual misallocation of resources. The increased cost to entrepreneurship and the relative ease of obtaining income transfers in the region further implies that Appalachia will continue to lag behind in investment, education, and commerce.

Second, this analysis has implications for foreign aid. The region of Appalachia, despite its economic malaise, is not subjected to many of the issues plaguing foreign nations. Appalachia is not governed by a repressive totalitarian regime, and it has functional legal and political systems. It is free from violent conflict, rampant disease, and famine. Yet, the U.S. government's efforts to increase educational attainment, employment, and other opportunities have largely failed despite Appalachia's favorable conditions and even though the region is not thousands of miles away. If the U.S. federal government is capable of planning economic development, it does not seem radical to have expected success in Appalachia. Given the relative "ease" of the Appalachian case compared with the cases in other parts of the world, U.S. efforts abroad, where conditions are not as favorable as those in Appalachia, are likely to fail and to disappoint.

Finally, this paper implies a solution for development in Appalachia. This analysis has shown that the ARC's inability to achieve systematic development is the result of the interplay between perverse incentives and economic calculation. The solution to these problems is not additional programs or expanded bureaucratic intervention, but economic freedom. The solution to the calculation problem requires private property, prices, individual calculation, and entrepreneurial discovery. Therefore, if the ARC and the federal government truly want to assist the people of Appalachia, the government should seek to institute policies that work to decrease government intervention and expand economic freedom, thus giving the region's people incentives to engage in entrepreneurship and to discover the means to enhance their own well-being.

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