UNINTENDED CONSEQUENCES OF GOVERNMENT INTERVENTION
ESSAYS IN HONOR OF RICHARD K. VEDDER

Richard K. Vedder
Reflections on the Current State of Political Economy

Sean E. Mulholland
Occupational Licensing and Interstate Migration

and Andrew T. Young

Lowell E. Gallaway
The Unintended Consequences of the War on Poverty

and Daniel G. Garrett

Russell S. Sobel
Has the War between the Rent Seekers Escalated?

and Joshua C. Hall

Michael D. Stroup
A New Measure for the Variation of State Tax Prices

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The Cato Journal (ISSN 0273-3072) is published in the winter, spring/summer, and fall by the Cato Institute, 1000 Massachusetts Ave., N.W., Washington, D.C. 20001-5403. Annual subscriptions are $22 for individuals and $50 for institutions. Single copies are $8. Two-year and three-year subscriptions are $38 and $55, respectively, for individuals, and $85 and $125, respectively, for institutions. Foreign subscribers should add $5 per year for regular delivery and $10 per year for airmail delivery.

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**EDITOR’S NOTE**

This special issue of the *Cato Journal* considers the *Unintended Consequences of Government Intervention* by examining a number of public policies ranging from occupational licensing to the War on Poverty to the minimum wage and public education. The articles in this volume were written in honor of Richard K. Vedder, Distinguished Professor of Economics Emeritus at Ohio University, by his former students and colleagues. Vedder has long focused on the importance of economic freedom for human well-being, and has shown how big government and the regulatory/welfare state undermine individual responsibility, encourage rent seeking, and slow economic growth.

In his opening essay, Vedder reflects on “the current state of political economy” and points to “the disconnect between economic reality and public policy.” When policy starts with a respect for individual freedom and private property rights, and recognizes the limits of government action, then policymakers are apt to enhance markets and foster productivity. That is the challenge the authors in this volume present.

Special thanks go to Joshua Hall and Jason Taylor for organizing the contents of this issue and acting as guest editors. I would also like to thank the authors for their diligence and Tom Clougherty for his skillful assistance in bringing this issue to fruition.

—J. A. Dorn
INTRODUCTION
UNINTENDED CONSEQUENCES OF GOVERNMENT INTERVENTION
Joshua C. Hall and Jason E. Taylor

At the core of the economic way of thinking is the notion that well-intentioned public policies often have unintended consequences that lessen or negate the intended outcomes of the policy. To paraphrase Frederic Bastiat, a good economist is one who regularly anticipates and teases out the unintended consequences of public policies. Richard Vedder is a good economist.

Richard K. Vedder: Scholar

Richard Vedder earned his B.A. in economics with honors from Northwestern University in 1962. After graduation, he directly enrolled in the doctoral program in economics at the University of Illinois at Urbana-Champaign where he focused on American Economic History and Public Finance. A quick study and even quicker researcher, Vedder received his doctorate in 1965 after only three years at Illinois. In the fall of 1965, he started as an Assistant Professor of Economics at Ohio University and would quickly rise through the academic ranks to eventually become a Distinguished Professor, the highest distinction bestowed on faculty members at Ohio University. Even after taking emeritus status several years ago,
he continues to teach American Economic History, 50 years after first stepping foot on campus in Athens.

Vedder’s early work focused on migration, primarily during the 19th century. Along with a number of co-authors—including his longtime collaborator Lowell Gallaway—Vedder looked at the factors influencing migration both domestically and abroad. This work was published in top economic history journals such as the *Journal of Economic History* (Gallaway and Vedder 1971) and *Explorations in Economic History* (Gallaway, Vedder, and Shukla 1974). While historical in nature, Vedder’s work was generally related to contemporary public policy questions, such as the role of economic opportunity on recent migration patterns (Cebula and Vedder 1973, 1976). Vedder taught his students that we can learn much about important issues today by looking at applications in the past.

In 1981, Vedder received an invitation to join the Joint Economic Committee of the U.S. Congress as an economist. It was during this period that his research turned more to contemporary problems in public finance. In 1985, Vedder published his first academic article on taxation in the *Cato Journal* (Vedder 1985). Five years later he returned to the CJ to meld his research on migration and taxation with “Tiebout, Taxes, and Economic Growth” (Vedder 1990). Toward the later part of the decade and into the early 1990s, Vedder co-authored a number of articles on rent seeking and the consequences of the U.S. transfer state (Vedder and Gallaway 1986, 1991; Vedder, Gallaway, and Sollars 1988; Gallaway and Vedder 1989). In addition to this body of work (and numerous other publications) during the 1980s, Vedder and Gallaway were working on the ideas and research that would form the core of their 1993 book *Out of Work: Unemployment and Government in Twentieth-Century America*.

A visiting position at the Center for the Study of American Business during the mid-1990s launched Vedder’s research into educational productivity (Vedder 1996). While he originally focused on K–12 education (Vedder 2000, Vedder and Hall 2000, Vedder and Hall 2002), Vedder turned his attention to higher education with his influential book *Going Broke by Degree: Why College Costs Too Much* (Vedder 2004a). Since its publication, Vedder has largely focused his attention on policy issues related to higher education in a number of journal articles (Vedder 2004b, Vedder and Gillen 2011) and scholarly papers for state-based think tanks as well as his national think tank the Center for College Affordability and Productivity.
In this brief introduction, we can barely scratch the surface of Vedder’s research accomplishments. For example, our discussion does not even mention his 2006 book with Wendell Cox on Wal-Mart, or his large number of studies for state and national think tanks such as the Mackinac Center and the Cato Institute. Vedder has also been a tremendous ambassador for economics through his media outreach via literally hundreds of op-eds and interviews. He has influenced the public policy debate on numerous topics.

Despite his success in the public eye, at his core, Rich is a teacher and a scholar. As former students, we can attest to his ability to teach, mentor, and inspire. Have you ever seen a professor call a student’s house when he or she did not show up for a 9 a.m. class? We have—and believe us when we say that attendance at Vedder’s seminar classes was always at or near 100 percent. Literally thousands of students owe much of who they became—whether academic scholars like us, or those using economic skills in the private or public sectors—to Richard Vedder. We hope that this volume draws additional attention to how influential his work has been.

An Overview

The articles in this issue are not hagiographic. Instead, they explore questions on topics that have been at the core of Rich’s research program throughout his career. In requesting submissions for this special issue, we were intentionally broad given the scope of Rich’s work over his career. Given the diverse topics (migration, taxation, poverty, unemployment, K–12 education, higher education, inequality) that Rich has written on in his career, our hope was that the submissions would be diverse enough to truly honor Rich’s scholarship. We were not disappointed.

The ten articles that follow Vedder’s lead article roughly parallel the temporal progression of Rich’s scholarship. For example, some of Rich’s earliest work (with Richard Cebula) was on interstate migration. In the opening article of this issue, Sean Mullholland and Andrew Young look at the effect of occupational licensure on migration. They find that states where fewer low- to moderate-income occupations are licensed have higher in-migration than those without a college education. Like Rich’s work on migration, Mullholland and Young find that individuals migrate toward greater economic opportunities.
The next three articles are related to Rich’s work during the 1980s on poverty, rent seeking, and taxation. The first of these is by Rich’s longtime coauthor, Lowell Gallaway and his coauthor Daniel Garrett. In their article, they update and extend much of Rich and Lowell’s work from the 1980s on the unintended consequences of the War on Poverty. They present empirical evidence that increased public aid to the poor has not led to reduced levels of poverty and may have made things worse. Following this is a short article by Russell Sobel and Joshua Hall extending an article by Vedder and Gallaway in Public Choice entitled “The War between the Rent Seekers.” Like Vedder and Gallaway, they uncover a negative relationship between welfare spending per capita and public school teacher salaries suggesting that, at some point of government activity, interest groups are in competition for government resources. Michael Stroup and Keith Hubbard provide a new measure of the variability of state tax prices in the hope that future scholars can build off Vedder’s 1990 article in the Cato Journal looking at interstate tax price variation and economic growth.

Articles five through seven focus primarily on unemployment and other macroeconomic issues Rich studied extensively during the 1990s and into the 2000s. In an article reminiscent of much of Rich’s historical research with Lowell Gallaway, Jason Taylor and Ronald Klingler look at the parallels between the 2013 sequester and post-WWII spending cuts. Like Vedder and Gallaway, they find evidence that cuts in government spending actually help the economy instead of harming it as conventional wisdom suggests. The next article by J. Wilson Mixon Jr., and E. Frank Stephenson pursues a theme related to Vedder and Gallaway’s Out of Work, namely that government policies designed to help laborers often end up having the opposite effect. Looking at youth summer employment from 1972 to 2012, they find that increases in the real value of the minimum wage have had a negative effect on teen summer employment. Michael Hicks, Michael LaFaive, and Srikant Devaraj continue the labor theme in following up Rich’s scholarship on the economic effects of right-to-work (RTW) laws. They find that RTW has resulted in higher manufacturing productivity and population growth compared to non-RTW states.

Concluding this special issue are three articles focusing on K–12 education, higher education, and the effects of economic freedom. Benjamin Scafidi documents declining productivity in K–12 education.
in the United States and provides some suggestions for potential reform. Jayme Lemke and William Shughart use Rich’s work on higher education as a starting point to hypothesize about the future of higher education and the potential for beneficial reforms.

Finally, Daniel Bennett concludes the special issue by looking at the effect of economic freedom at the state level in the United States and Canada. He finds that economic freedom is associated with higher levels of income per capita and lower unemployment rates.

Conclusion

From its founding, the *Cato Journal* has been a home for rigorous scholarship that eschews esoteric academic analysis, but instead wrestles with some of the most fundamental public policy issues of the day. Whether it is an issue of the principle and politics of tax reform in 1985 or making a federal case out of health care in 2002, the CJ has published articles that speak clearly to pressing public policy issues. We can think of no better publication for this collection of essays honoring Richard Vedder to appear.

References


Cato Journal


Reflections on the Current State of Political Economy

Richard K. Vedder

Like most economics professors, I have spent my academic lifetime examining the economic and public policy effects of issues involving the production, distribution, and consumption of goods and services—political economy, if you will. There is, however, a “political economy” to the very act of producing and disseminating economic knowledge and examining public policies. And that political economy and my assessment of it has changed over a career spanning more than half a century. In this brief article, I will confine my attention mostly to the research dimension and look at five issues, most relating to the political economy of the study of political economy.

Diminishing Returns to Research

I have long been bemused by economists who profess to understand the principle of scarcity and the importance of opportunity costs, yet write so much trivia of little interest to anyone. They do so because of the nonmarket nature of most academic endeavors and the utter lack of incentives to be efficient. The fifteenth paper on a topic is not very likely to add as much to our stock of knowledge as the first or second. I think the nation as a whole has probably overinvested in higher education because of vast governmental subsidies.
(an argument best made by retired professors like me whose potential acquisition of economic rents by extolling higher education is minimal). That manifests itself in such phenomena as the overeducated Starbucks barista or in the more than 115,000 janitors with bachelor’s degrees. It also means roughly 1,000 academic papers are being written on William Shakespeare annually—three per day (Bauerlein 2009: 6). Who reads them? How much does a typical paper add at the margin to the insights that Shakespeare gave us 400 years ago?

The problem extends to the inputs as well as the outputs of higher education, and too many professors are writing too many words (and equations) that, to borrow from the Bard (Shakespeare to college graduates after 1990), “signify nothing.” What if professors wrote only one-third or one-half the number of papers they currently write, but taught one more class per year? My guess is that the net effects would be at least mildly positive, maybe even leading to smaller tuition increases and delaying a bit the demise of the current medieval way we do business. Related to all that, the U.S. Department of Education can probably tell you how many anthropology professors of Hispanic origin there are in South Dakota, but cannot tell you what the average teaching load of American professors is. But I am pretty sure it is minimally 25 percent less than it was when I began fulltime teaching in the year the Higher Education Act passed, 1965. Doing less (teaching) with more describes modern higher education.

Pseudo-Science and Ideology

Modern economics may be less ideologically driven than, say, sociology, but the notion that economists are scientists who objectively observe phenomenon and derive conclusions solely on the basis of empirical evidence is largely a myth, despite pretenses to the contrary. Nobel Prize winners like Paul Krugman and Joseph Stiglitz sometimes morph into almost pure ideologues, doing little or no truly serious work after receiving superstar academic recognition. And, as is oft-observed, the predominant ideological orientation is leftish, despite overwhelming evidence that many leftish policy prescriptions are failures or at least highly inefficient. Leftish intellectuals helped created the European welfare state that has been accompanied by declining growth rates for six decades, from around
5 percent annually in the 1950s to under 2 percent today. Yet, only a minority of economists uses this overwhelming evidence to suggest the nonmarket statist solutions of the welfare state are highly flawed.

Why is this? I think a big reason for this is that modern academic economics is funded predominantly by the state, even at so-called private schools like Harvard. Academics are wards of the state, so it is in their self-interest to have the state large and taxes high. It is ideological bias driven by rent seeking. Even conservative/libertarian scholars like the late George Stigler or Gary Becker often favored and even lobbied for governmental academic support. I once informally debated Becker, arguing that the alleged positive externalities of higher education were largely fiction, a view Milton Friedman was coming around to shortly before his death (Vedder 2004: 127). Becker kept saying college graduates committed fewer crimes, smoked less, and volunteered more, but made no rigorous attempt to relate these attributes to collegiate attendance as opposed to other character traits.

Why did most economists apparently vote for Obama in both 2008 and 2012, when by any objective measure Obama’s policies have led to a severely underperforming economy? Why do economists support those politicians who promote policies that lead to less creation of goods and services, more inefficiency and, often, even greater poverty and income inequality? Measured income inequality is greater under President Obama than under, say, either George W. Bush or Ronald Reagan. Again, insights from the theory of public choice are in order: don’t underestimate the importance of rent seeking—the government has bought off many academics.1

The Rise of the Nonuniversity Research Centers

One thing students learn early in their first course in economics is that monopoly is inefficient and costly, and competition is good. As university faculty show their disdain for the power of markets and promote solutions shown to be inefficient and often poverty inducing, new intellectual competition has arisen, some via privately funded support for university teaching and research but also by independent

1On insights from public choice theory, see Buchanan, Tollison, and Tullock (1980) and Niskanen (1971).
research centers—think tanks. When I started in academia in the 1960s, we had the National Bureau of Economic Research, the Hoover Institution, the Brookings Institution, and a nascent American Enterprise Institute. Today, in the nation’s capital alone there are at least half a dozen relatively important centers where economic research is conducted at some level: Brookings and AEI, but also the Cato Institute, Heritage Foundation, Competitive Enterprise Institute, and the Urban Institute. A majority, although by no means all, of them support and encourage research and writings pointing out the failures of big government and the unintended consequences of many public policies.

Equally important has been the proliferation of regional think tanks, such as the Mackinac Center in Michigan, the Texas Public Policy Foundation, the Manhattan Institute, the Commonwealth Institute in Pennsylvania, and the Pacific Research Institute in California. Important non-Washington-based nationally oriented think tanks like the Heartland Institute, National Center for Policy Analysis, and the Independent Institute have importantly contributed to the creation and dissemination of important economic research, almost all of it far less celebratory of the accomplishments of nonmarket political solutions than that found in the universities. Some private philanthropists (e.g., the Charles Koch Foundation, Searle Freedom Trust, and Bradley Foundation) have supported academic work and even centers within the university environment. I sense, however, that the “market share” of universities in the world of ideas is in decline, and that decline will continue as extreme collegiate inefficiency and contempt for the real world will lead to declining governmental and possible private support. Without massive subsidies, the universities decline. Massive public overinvestment has already led to huge underemployment of graduates. The declining return on public investment in higher education is becoming obvious to politicians and voters, if not to the professors who are major beneficiaries of third-party largess. Adding to the woes of universities, sharply declining economic growth and rapidly rising unfunded liabilities are reducing the capacity of governments and private donors to fund operations.

\[2\] I have lectured, written, and advised for more than 30 of these organizations over my career.
The Disconnect between Economic Reality and Public Policy

In my academic lifetime, three important conclusions have come about as a result of empirical observations and theoretical advances in economics. First, the Keynesian approach to stimulate economies through monetary and fiscal policy almost always results in failure. This was manifested empirically in the stagflation of the 1970s (despite continuous budget deficits and fiscal and monetary stimulus), as well as by theoretical advances by Milton Friedman, Edmund Phelps, and the rational expectations school (Robert Lucas, Thomas Sargent, and others). The Phillips Curve, all the rage in principles of economics courses in the 1960s, has been largely discredited.

Second, centrally planned economies without substantial private property rights are extremely inefficient and ultimately unsustainable. As late as the mid-1980s, Nobel laureate Paul Samuelson in his iconic textbook proclaimed that the Soviet planning system was a powerful engine for economic growth (Samuelson and Nordhaus 1985). That idea has been thoroughly discredited. The greatest empirical economic event of the 20th century, the fall of the Soviet Union (without a shot being fired), is the primary evidence. Similarly, the easing of central planning and the establishment of private property rights in China set off an economic growth of unprecedented proportions. The new institutional economics and the emphasis on the importance of property rights and business organization by economists like Ronald Coase, Armen Alchian, Harold Demestz, Oliver Williamson, Douglass North, and a host of others, enhances our understanding of the Chinese economic revolution. Indeed, as early as 1920, the great Austrian economist Ludwig von Mises ([1920] 1990) warned that efficient central planning was impossible, a point picked up empirically by several writers from 1950 to 1990, notably Soviet expert G. Warren Nutter (1968).

Third, even economies that blended private property rights and some protection of market activity with a huge income redistributionist welfare state have been shown to have troubles sustaining material advances. The much-hyped eurozone has been mired for at least a generation in stagnation, most prevalent in the areas where fiscal insanity and redistributionist schemes were the greatest—countries like Greece and Spain. From 2010 through 2014, 25 of 36 European nations I examined had average annual growth rates below
2 percent, and the high-growth (2.7 percent a year or more) nations were the Baltic Republics, Poland, Turkey, and Moldova, former Communist countries that have eschewed excessive welfare state policies or, in the case of Turkey, a non-EU nation that never has had a vast welfare state with high tax levels, The supply-side revolution of the 1980s established that “taxes matter,” and economic incentives influenced by public policy are important in the efficient and plentiful provision of resources for economic growth.

While theoretical advances and empirical work demonstrated clearly that market-oriented, competitive economies outperformed heavily statist ones with much centralized direction, why did much of the world seemingly ignore that advice, moving to ever-larger governmental command over the economy? In part, the answer lies in that both the scholarly and popular media are still dominated by people on the left. It also reflects, however, a public choice insight: special interest groups, concentrated minorities of the population, can often overcome the interests of the majority—concentrated benefits (the special interests) win over the disbursed costs incurred by the general public, which lobbies less because individually they have less at stake (although not collectively).

The War on Work

Let me turn to my own areas of scholarly interest. A large portion of my own work, especially with Lowell Gallaway, relates to labor markets. I think modern economists have understated the importance of labor, which by most measures accounts for nearly two-thirds of production. I will go to my death believing the single most important factor in causing the Great Depression was discoordination in labor markets (too high wages) caused in large part by government policies such as the Hoover–Roosevelt “high-wage” policy (Vedder and Gallaway 1997). And probably the centerpiece of the Great Slowdown after 2000 has been what could be called a government-led War on Work. From 1960 to 2000, the proportion of Americans working increased, but that was entirely the result of greater female labor participation. Edward Prescott (2004) has shown how American economic supremacy over Europe grew in the 1980s and 1990s simply because Americans worked more, and work effort in Europe was in significant decline. Since 2000, however, the European Disease has come to America, and the
proportion of Americans working has fallen sharply. Not coincidentally, the American natural rate of economic growth (to perhaps coin a term) has gone from above 3 percent to about 2 percent a year, with tragic consequences for future generations.

Why? Again, this is the unintended consequences of the welfare state. Disability insurance claims have roughly tripled in the last generation (despite greater inherent safety in the workplace because of the declining relative importance of manufacturing and mining); government-subsidized student loans and grants have lured younger Americans away from working; extended unemployment benefits prolonged unemployment; and food stamps now go to nearly 30 million more Americans than 15 years ago (Vedder 2013). The government has provided much more income that is only available if people do not work. So fewer do.

The Decline in Historical Consciousness

As George Santayana (1905) told us over a century ago, “Those who cannot remember the past are condemned to repeat it.” Modern economists shower themselves with lots of mathematics and use ever-more sophisticated econometric techniques to analyze economic phenomena. But they are increasingly abysmally ignorant of the past. That leads economists to overconfidence (thinking everything important was discovered recently, and past generations were therefore ignorant), further leads them to ignore the context that past events provide in shaping the present, and, therefore, sometimes leads us to repeat mistakes made in the past. The ahistorical nature of modern economists is demonstrated by the near disappearance of courses on the history of economic thought, as well as the sharp decline in the study of economic history (the evolution of modern economies). Why did 19th-century America surpass Britain and other heretofore larger and more powerful European economies to become the richest nation in the world? Why did we go from 4 percent growth in the 1920s to 0 percent growth in the 1930s, in the process leading to a peaceful political revolution that shapes America to this day? How are the “Black Lives Matter” movement and related phenomena partially related to slavery that ended 150 years earlier? How did our current understanding of “value” come about, and why did economists for centuries puzzle over things like the difference between “value in use” and “value in exchange”? Economic history
and the history of economic thought give insights into these and many other questions. A little dose of that would do all serious students of economics some good.

Conclusion

If economics is on the decline, why do I continue to teach and do research after more than 50 years? The answer is I like doing my bit to correct the wrongs discussed in this article. Above all, I live for seeing the results of my labors a decade or even several decades later, in terms of opening the minds of young men and women to the logic of the price system and the importance of private property and other institutions for freedom and prosperity. Helping my students understand the unintended consequences of public policies and seeing those students become successful teachers and scholars is itself rewarding.

References


Political Economy


OCCUPATIONAL LICENSING AND INTERSTATE MIGRATION

Sean E. Mulholland and Andrew T. Young

In an overview of his book with Lowell Gallaway, Out of Work: Unemployment and Government in Twentieth-Century America, Richard Vedder (1993: 1) states: “Not only has the government contributed to the instability and volatility of unemployment in several important episodes in American history, but the overall long-term level of unemployment has been raised by government policies”; furthermore, “the victims of these well-intentioned government policies have been largely the poor, the unskilled, and minorities, not the more affluent educated middle classes.” A substantial part of Vedder’s writing and research—much of it with Lowell Gallaway—has directly or indirectly stressed this fundamental reality of government policies (e.g., Vedder, Gallaway, and Sollars 1988; Vedder and Gallaway 1992a, 1992b).

Much of Out of Work concerns itself with federal government policy. However, state and local governments also pursue policies that erect barriers between individuals and employment opportunities, and those opportunities are often ones that require relatively low levels of skill and experience. At the level of state governments in particular, occupational licensing laws represent a substantial complex of such barriers, and occupational licensing has become increasing prevalent across the U.S. economy. In the 1950s, about 1 out of 20 American...
workers required a license for their occupation. By 2006, this ratio had climbed to nearly 1 out of 3 (Kleiner and Krueger 2010, 2013). Today more than 800 occupations are licensed in at least one state.¹

There are some plausible justifications for occupational licensing laws. For example, if it is difficult for consumers to distinguish between higher-quality versus lower-quality labor services in a given occupation, then licensing can provide incentives for individuals to make investments in occupation-specific human capital (Ackerlof 1970, Shapiro 1986). Occupational licensing can then essentially solve a lemons problem. Consider electricians. If consumers cannot distinguish higher-quality from lower-quality electrical work, or if it takes a substantial period of time before consumers are able to make the distinction (e.g., when one’s house burns down years later), then competition may crowd higher-quality electricians out of the market, leaving only the lower-quality ones (i.e., the lemons).² Occupational licensing may decrease consumer uncertainty regarding the quality of the licensed labor service while also increasing consumers’ demand for that service (Arrow 1971).³

However, many of the occupations for which state governments require licenses do not seem to fit the bill for being associated with serious lemons problems. The information asymmetries that consumers face in procuring these labor services seem relatively slight. For example, according to the License to Work study published by the Institute for Justice (Carpenter et al. 2012), occupations that require licenses in at least half of the states include auctioneer, makeup artist, athletic trainer, cosmetologist, barber, taxidermist, and massage therapist. For those occupations, one needs a creative imagination to spin a tale where lemons crowd out all of the higher-skilled competitors. Looked at from a different perspective—but again one that calls the lemons problems justification into serious question—Carpenter et al. (2012: 29) note that “EMTs [Emergency Medical Technicians] hold lives in their hands, yet 66 other occupations have greater average licensure burdens than EMTs.” Even a

¹This number comes from a Council of State Governments (1994) report. It is certainly a lower bound on the number of occupations licensed today.
²Certification is a way to solve this problem without licensing.
³Kleiner (2000) provides an overview of the economic justifications that have been put forth for occupational licensing.
casual look across licensed occupations in the United States suggests that licensure burdens do not have a clear, positive relationship to information asymmetries and the need for quality control.

A more persuasive explanation for the pervasiveness of occupational licensing is regulatory capture (Stigler 1971). Existing members of a given occupation represent a special interest. That special interest stands to gain from erecting barriers to entry. Existing members of the occupation stand to gain by insulating themselves from competition. Occupational licensing imposes burdens on potential entrants to a specific occupation, including fees, mandatory training periods, apprenticeships, and examinations. These burdens act as barriers to entry that secure rents for the existing members of the occupation. In the case of regulatory capture, then, the demand for occupational licensing is rooted in the existing members of the occupation being licensed. Consistent with the idea of regulatory capture, the majority of membership on licensing boards is almost always drawn from members of the occupation being licensed (Kleiner 2000: 191).

Licensing of Low- and Moderate-Income Occupations

Licensing is often required for various types of high-skill, high-education, typically high-income professions. For example, over 44 percent of U.S. workers with college education beyond a bachelor’s degree are licensed by government (Kleiner and Krueger 2013: S183). These licensed professionals include medical doctors, engineers, and lawyers. In contrast, only about 14 percent of workers with less than a high school degree and 20 percent of those with only a high school degree are licensed. However, in this article we are more interested in the burden imposed by occupational licensing on the latter type of workers. Low-skilled workers with relatively little experience are often just trying to get footholds in the job market—perhaps to obtain their first jobs that will, in addition to providing wages, allow them to accumulate the additional skills and experience that will later on translate into upward income mobility. For these workers, the burdens of occupational licensing can be particularly onerous.

Notwithstanding their lack of formal education and work experience, lower-skilled and inexperienced individuals may still be creative and innovative, alert to new ways of providing for consumers and may profit from doing so. For these individuals, the burdens associated
with licensing can effectively dampen or entirely snuff out the entrepreneurial spirit. These individuals cannot simply “hang out a shingle” and offer their labor services in ways that address consumer preferences. For example, as of 2012, there were 36 states that required licensing to be a makeup artist. This is an occupation that requires little formal training or capital to start. Indeed, much of the value that a makeup artist brings to the table is likely rooted in inherent creativity and talent—an eye for the elegant, exotic, or otherwise beautiful. Yet in states where a license is required, potential entrants to that occupation must pay an average of $116 in fees and complete 138 days of education and/or on-the-job experience. In the case of the latter, the experience is often acquired as an apprentice, which is essentially low- or no-wage labor provided to existing members of the occupation. Relative to the opportunities available to a high school dropout, these costs may be quite large.

Occupational Licensing and Migration

In a recent article in the Cato Journal, Vedder (2010: 171) noted: “One important economic dimension of individual liberty is the right to sell one’s labor services without attenuation—that is, without limits on the terms of the agreement (e.g., wage rates and hours of work), or who will represent the worker in reaching those terms.” We concur with this claim and argue that the “terms of the agreement” include not only wages and hours—and certainly Vedder did not mean to limit it as such—but also the liberty to decide where to offer one’s labor services. An essential ingredient of the freedom of contract with one’s labor services is the freedom to seek out those markets in which there are individuals with whom one wishes to contract.

The barriers to entry that are erected in the form of occupational licensing laws deprive individuals—especially low-skilled and inexperienced individuals—of opportunities within their states of residence, but also of opportunities to better themselves by moving to greener economic pastures. Occupational licensing laws hinder the allocation of labor across states, depriving the economy of gains from trade in labor services that are based on comparative advantages and the variation in market opportunities across the country. Much of Vedder’s early research with Gallaway can be interpreted as highlighting how migrants, both across regions and countries, exploit these gains toward both their own betterment and the betterment of
those individuals to whom they eventually offer their labor services (see, e.g., Gallaway and Vedder 1971a, 1971b, 1980; Gallaway, Rydén, and Vedder 1973).

Pashigan (1979) reports that occupational licensing is an economically important barrier to interstate mobility of workers in high-skilled occupations. However, there are few empirical studies of the analogous implications for lower-skilled labor. One such study by Federman, Harrington, and Krynski (2006) finds that occupational licensing laws for manicurists are an important barrier to Vietnamese immigration into those states requiring licenses. They also argue that licensing hinders the assimilation of Vietnamese immigrants by preventing them from entering an occupation in which the costs of not learning English are relatively low. We make a contribution in this article by reporting the effects of interstate differences in occupational licensing burdens on the probability of migrating across state lines. Using a modified gravity equation, we focus on how occupational licensing burdens affect the intra-U.S. movements of individuals already in the labor force and, in particular, those individuals without a college-level education.

While we focus on occupational licensing specifically, our article contributes to a broader literature that examines the role of public policies in determining migration flows. For example, early studies by Cebula, Kohn, and Vedder (1973) and Kohn, Vedder, and Cebula (1973) examine whether cross-state variation in Aid to Families with Dependent Children created "welfare magnets" for economically disadvantaged populations. A later paper by Ashby (2007) reports a positive relationship between differences in a broad measure of economic freedom between destination and origin states and the associated migration flows. Alternatively, other authors estimate the effect of various policies on the migration decisions of specific demographic types. For example, Shan (2010) and Farnham and Sevak (2006) report that the elderly migrate to avoid property taxes that fund public schools; they also migrate to states that have lower estate taxes (Bakija and Slemrod 2004).

Migration in response to differences in occupational licensing requirements between two states may affect migration patterns in a neighboring state as well. For instance, with only 33 low-income

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*Greenwood (1997) provides an overview of the earlier literature.*
occupations requiring licenses, Georgia may attract a number of in-migrants from states with a larger number of licenses, such as Virginia with 46. Many of these in-migrants will choose to live in Georgia, but some may choose to work in Georgia but live in the neighboring states of South Carolina, North Carolina, Tennessee, or Alabama. Given that state net migration may depend on neighboring state policies, this spatial dependency violates the conventional Gauss-Markov regression assumption of independence between disturbance terms. Therefore, ordinary least squares regression models produce biased estimates, since they do not allow for spatial spillovers.

Since interstate migration rates exhibit spatial dependence, we follow Mulholland and Hernández-Julián (2013) and report the results of estimating Bayesian spatial Durbin models (SDMs) of (log) odds migration ratios on (log) occupational licensing burden ratios. This methodology enables us to estimate: (1) the direct in-migration effect of the differential licensing burden between two states; and (2) the indirect in-migration effect of neighboring states’ licensing burdens and their net migration. For this purpose, we define a given state’s “neighbors” as those states sharing a border with it. In examining bilateral interstate migration flows, we also control for differentials in populations (levels and densities; also the percentages that are retired), incomes, unemployment rates, average precipitation rates, and temperatures; also the distance and distance squared between a given pair of states.5

Does Licensing of Low- to Moderate-Income Occupations Decrease Interstate Migration Flows?

Our migration data come from the American Community Survey (ACS) for the 2008–12 window. Our occupational licensing data come from the 2012 Institute for Justice License to Work Study. This study is based on observations made within the latter part of the

5We also include two additional binary variables: (1) Stayij, which equals 1 for observations where the origin and destination are the same state; (2) Moveij, which equals 1 when the origin is different from the destination. These are included to separate out the effects of internal state migration. In addition to variables indicating economic costs and benefits, the inclusion of temperature and precipitation rates acknowledges the importance of noneconomic “quality of life” factors in migration decisions (Cebula and Vedder 1973).
Occupational Licensing and Interstate Migration

ACS window. Since occupational licensing laws and requirements exhibit substantial persistence over time, relating the 2008–12 migration flows to the License to Work data is reasonable. We focus on occupational licensing for 102 occupations that are recognized by the U.S. Bureau of Labor Statistics (BLS) as being associated with wage rates lower than the national average. We are, therefore, focusing on licensing of low- to moderate-income professions. For each state, we have data on the number of occupations licensed, the average fees associated with obtaining a license, and the average days of education and/or experience necessary to obtain a license.

The SDM model is of the form:

\[ y_{ij} = \alpha + \rho W y_{ij} + X_{ij}\beta + WX_{ij}\theta + \varepsilon, \]

where our dependent variable, \( y_{ij} \), represents an \( n \times 1 \) vector of a (log) odds ratios of migrants from state \( i \) to state \( j \):

\[ y_{ij} = \log \left( \frac{\text{Migration}_{ij}}{1 - \text{Migration}_{ij}} \right). \]

This can be interpreted as the probability of migrating from state \( i \) to state \( j \), and we relate this to the (log) ratio of licensing burdens in \( j \) (the destination) to \( i \) (the origin). The SDM model collapses into the standard linear regression model if \( \rho = \theta = \lambda = 0 \). However, when this is not the case, the model allows for two types of spatial dependence where “neighbor” relations are defined by shared borders and a first-order contiguity weight matrix, \( W \).\(^6\) First, migration flows from \( i \) to \( j \) can be related spatially to flows from \( i \) to neighbors of \( j \). Second, migration flows from \( i \) to \( j \) can be related not only to the difference between \( i \)'s licensing burden and \( j \)'s, but also that of \( j \)'s neighbors. Intuitively, a resident of \( i \) who is contemplating migration to \( j \) will take into account the relative burden of that move, the relative burdens of nearby alternatives, and the in-migration rates experienced by these alternative destinations.

Table 1 reports the results of this analysis. Following LeSage and Pace (2009) we calculate the direct, indirect (i.e., the cumulative effects of neighbors’ policies and, in turn, their neighbors), and total

\(^6\)The matrix has nonzero values in columns \( j \) for states that have borders touching each state in row \( i \). The nonzero values take the value \( 1/k \), where \( k \) is the total number of bordering states for state \( i \). See Mulholland and Hernández-Julián (2013: 68) for more detail on this weighting scheme.
TABLE 1  
**Bayesian Spatial Autoregression of (Log) Odds Migration Ratio on (Log) Occupational Licensing Burden Ratios**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licenses</td>
<td>-0.708</td>
<td>-0.179</td>
<td>-0.877</td>
<td>-0.653*</td>
<td>-0.205</td>
<td>-0.854*</td>
</tr>
<tr>
<td></td>
<td>(0.114)</td>
<td>(0.132)</td>
<td>(0.115)</td>
<td>(0.094)</td>
<td>(0.103)</td>
<td>(0.094)</td>
</tr>
<tr>
<td>Fees</td>
<td>-0.170</td>
<td>-0.043</td>
<td>-0.208</td>
<td>-0.273</td>
<td>-0.081</td>
<td>-0.353</td>
</tr>
<tr>
<td></td>
<td>(0.197)</td>
<td>(0.212)</td>
<td>(0.197)</td>
<td>(0.696)</td>
<td>(0.699)</td>
<td>(0.696)</td>
</tr>
<tr>
<td>Days of Exp.</td>
<td>-0.270</td>
<td>-0.067</td>
<td>-0.329</td>
<td>-0.336</td>
<td>-0.106</td>
<td>-0.437</td>
</tr>
<tr>
<td>&amp; Edu.</td>
<td>(0.945)</td>
<td>(0.947)</td>
<td>(0.945)</td>
<td>(0.410)</td>
<td>(0.412)</td>
<td>(0.411)</td>
</tr>
<tr>
<td>(\rho)</td>
<td>0.192***</td>
<td></td>
<td></td>
<td>0.242***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>2,304</td>
<td></td>
<td></td>
<td>2,304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.262</td>
<td></td>
<td></td>
<td>0.256</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** * and ** denote, respectively, statistical significance at the 10 percent and 1 percent levels; p-statistics are in parentheses.

effects of differences in occupational licensing burdens. We report results for two samples. The first three columns (direct, indirect, and total effects) use total migration flows; the next three columns are based only on migrants without college education. In both SDM estimations, the estimate of \(\rho\) is around 0.200 and statistically significant at the 1 percent level. The estimate suggests that there is indeed spatial dependence in the data and the SDM model (rather than a basic linear regression model) is appropriate.

For the full sample, the direct and indirect effects point estimates for the differential in the number of occupational licenses required in the origin versus the destination (“Licenses”) are both negative. They are not statistically significant at the conventional 10 percent level, but we note that the marginal significance levels are just shy of that cutoff, particularly for the direct effect (p-value = 0.114). In terms of the point estimates, the direct effect is dominant (-0.708 versus -0.179). The total effect (the sum of the direct and indirect
effects) is negative and, again, just shy of the 10 percent significance level (p-value = 0.115). All of the effects associated with differentials in required fees (“Fees”) and days of educations and/or experience required (“Days of Exp. & Edu.”) are negative but never statistically significant.

When we turn to migration flows based only on individuals without a college education, the results are qualitatively similar to those based on the full sample, but now the direct and total effects associated with “Licenses” are statistically significant at the conventional 10 percent level. Furthermore, the indirect effect estimate just misses the cutoff: p-value = 0.103. Based on the point estimates, the direct effect is again dominant (−0.653 versus −0.205). Since the dependent variable is a (log) odds ratio, we interpret this direct effect as indicating that if a destination state has 10 percent more occupational licenses than a potential origin state, the individuals without a college education residing in that origin will be 6.5 percent less likely to migrate to that destination. This is a large effect. The mean number of low- to moderate-income occupations for which licensing is required across states is about 43. The standard deviation across the different states is about 10.6. In other words, a standard deviation is about 24 percent of the mean.

As a more informal perspective on the size of the estimated direct effect, one of the two authors of this article works in West Virginia, where 49 low- to moderate-income occupations are licensed; the other author works in Massachusetts, where only 37 occupations require licensing. The difference between the two states is 12 occupations, or what would represent about a 24 percent decrease in West Virginia’s licensing if it were to match that of Massachusetts. Roughly, our estimate suggests that if West Virginia were to decrease the number of low- to moderate-income occupations that are licensed by 12, then, all else equal, the probability of noncollege-educated people migrating from Massachusetts to West Virginia would increase by more than 15 percent. This would, of course, be of direct benefit to the noncollege-educated migrants. It would also indirectly benefit West Virginia residents with college educations, as well as potential migrants to the state who have college educations. In addition to production complementarities between relatively low- and high-skilled labor types, lower occupational licensing burdens would attract migrants who would offer broadly desired amenities. In West Virginia specifically, a decrease in occupational licensing might
be associated with greater variety and affordability in preschools, child care, private security, and a wide variety of contractor services.

As in the case of the full sample, when we examine only noncollege-educated migrants, we find that only differentials in the number of occupations that require licensing matters; not the average fees or days of educations and/or experience required. We find this troubling. If occupational licensing laws were enforced by boards in a predictable, rule-based fashion—as would be consistent with the lemons problems justification for their existence—then we would expect that these latter variables capture the real burdens of licensing more accurately. But they apparently do not. This seems consistent with regulatory capture. In particular, it may suggest that licensing boards act discretionarily in ways that restrict entry (and protect the rents of existing members of an occupation) and are independent of the ostensible rules of the game.

In conclusion, we find that noncollege-educated residents appear to migrate toward states with fewer occupational licenses. States with a 10 percent lower relative number of occupational licensees experience a 6.5 percent higher in-migration rate for individuals without a college education. Although the effects are just short of statistical significance for total migration flows, noncollege-educated migration flows are where we would expect to see significant effects for licensing of low- to moderate-income occupations. We also note that the 2008–12 time frame of our study and the recent increases in the number of occupational licenses may contribute to a lack of precision of our estimates. First, migration rates tend to be pro-cyclical (Greenwood 1997, Milne 1993, Pissarides and Wadsworth 1989). Therefore, the economic downturn in 2007 likely depressed overall migration rates for a number of years. Second, the long-run trend in internal state migration in the United States has been declining since the 1980s. In the 1980s, between 2.5 to 3 percent of individuals migrated from one state to another on an annual basis; by 2010, only 1.7 percent of individuals experienced interstate migration. This decline in migration rates is present for all age groups, all education groups, all race/ethnicity groups, all nativity groups, all income groups, households with and without children, employment status, and home ownership status (Molloy, Smith, and Wozniak 2011).

Third, over this time period, the number of occupation licenses for all types of occupations has increased. Given the increase in the
occupational barriers, our results may also suggest that occupational licenses and other barriers to employment may be at least partially responsible for the decline in mobility experienced by those living and attempting to work in the United States. Occupational licenses also provide a hurdle to exit. Given the investment required and the higher return provided for those with licenses, current holders are less likely to migrate at all. The increase in the number of occupations with licenses therefore lowers the probability that a license holder considers and finds it beneficial to migrate to another state. Further research on the effects of increases in licenses on migration rates over time may prove valuable.

Conclusion

We quoted Richard Vedder (2010: 171) as having stated: “One important economic dimension of individual liberty is the right to sell one’s labor services without attenuation—that is, without limits on the terms of the agreement (e.g., wage rates and hours of work), or who will represent the worker in reaching those terms.” We cannot help but believe that Vedder understates the importance he attaches to labor market freedom. As evidence, we can point to his statement that preceded the above passage:

The most essential ingredient embodied in the liberty championed by the classical liberal writers of the Enlightenment and beyond is individual choice and right of expression—the right of persons to say what they think, decide for themselves what groups they want to join, what religion they want to profess, what person they want to marry, what goods they want to buy or sell, and what persons they want to represent them where necessity requires collective decision-making [Vedder 2010: 171].

With this lead in, what is subtly labeled “one important dimension of individual liberty” becomes an essential component of individual liberty.

An important infringement on individuals’ labor market freedoms is occupational licensing, where certain types of employment are illegal without licensure by the government. Today, there are more than 800 occupations that require licensing in at least one state. Many of these are low- to moderate-income occupations; types of employment for which, in principle, individuals with little formal education
and experience could “hang out a shingle” and try to offer their services in mutually beneficial exchanges with customers. While proponents of such licensing will often point to externalities and lemons problems, the widespread licensing requirements on auctioneers, makeup artists, hair stylists, and massage therapists belies these justifications. That most licensing of low- to moderate-income occupations is symptomatic of regulatory capture seems more plausible, and unfortunately so. The labor market freedoms that Vedder has consistently emphasized are being denied to precisely those individuals who need them most: younger, less-educated, and inexperienced individuals who are looking to gain a foothold in the job market; individuals who may often have initially the least to offer, but are also the most eager to find something to offer to consumers so that they can start earning income, gaining skills, and becoming experienced, productive members of the workforce.

In this article, we have offered some evidence of how important these restrictions on labor freedoms can be. In particular, we have explored how differences in the licensing burdens for low- and moderate-income occupations across states affects the probability of interstate migration flows. This reflects two types of costs: (1) the costs to individuals who are unable to enter another state’s labor market to improve their own employment situation; and (2) the broader costs to the economy from preventing the reallocation of laborers toward their comparative advantages. We find that states with a 10 percent lower relative number of occupational licensees experience a 6.5 percent higher in-migration rate for individuals without a college education. To put this in some perspective, our estimate suggests that if West Virginia (a state with relatively burdensome licensing) were to decrease the number of low- to moderate-income occupations to the level of Massachusetts (a state with relatively light licensing) then, all else equal, the probability of noncollege-educated people migrating from Massachusetts to West Virginia would increase by more than 15 percent. (Notably, the median income of West Virginia is only about 60 percent of that of Massachusetts.)

These results suggest that the potential gains from removing the barriers to labor market entry and mobility are large. Furthermore, these gains include not only the direct benefits to noncollege-educated migrants but also indirect benefits to college-educated residents and potential migrants with college educations. If a state like West Virginia decreases its occupational licensing burden to along
the lines of Massachusetts, the resulting influx of labor would be complementary to the state’s college-educated labor, and it would represent a ready pool of employees for entrepreneurs to utilize in the starting-up and growing of new businesses. Furthermore, residents of West Virginia would enjoy greater variety and affordability in broadly desired amenities such as preschools, child care, private security, and a wide variety of contractor services.

References


The Unintended Consequences of the War on Poverty

Lowell E. Gallaway and Daniel G. Garrett

“Conventional wisdom suggests that a rise in federal expenditures designed to help low income groups should produce some reduction in poverty and thus some reduction in measured income inequality.” This passage is taken from Vedder, Gallaway, and Sollars (1988). Often, this conventional wisdom’s handmaiden is a negative critique of the economy’s ability to produce an equitable distribution of income. For example, Galbraith (1958) and Harrington (1962) argued that economic growth no longer had a significant impact on the incomes of those at the bottom of the income distribution.

Ideas of this sort took a prominent place in national public policy debates in the 1960s. In the 1962 Economic Report of the President, there is a reference on page 9 to people “whose poverty is barely touched by . . . improvements in general economic conditions.” The report adds, “To an increasing extent, the poorest families in America are those headed by people who are shortchanged even in times of prosperity.” At the same time, concern about the growth in the volume of welfare-type income transfers was on the rise. The data in this respect are compelling. Between 1953 and 1964, real per capita public aid payments rose by 70 percent while real per capita disposable income increased by only 21 percent. Yet, toward the end of this period, the official poverty rate appeared to have become stagnant. In the six years from 1956 to 1961, the poverty rate averaged
22.5 percent and declined by just one percentage point. Neither economic growth nor a surfeit of income transfers seemed capable of making significant inroads into the incidence of poverty.

Galbraith and Harrington appeared to be prophets. However, they were not simply prophets crying out in the wilderness. People listened to them—important people, who converted their ideas into the structural poverty thesis that became the dominant theme of anti-poverty public policy. The first anti-poverty legislation, The Economic Opportunity Act of 1964, was based on the notion of structural poverty. Perhaps this explains why, when he signed that legislation, President Lyndon B. Johnson proclaimed, “The days of the dole in America are numbered.”

The reality of the future of what Johnson called “the dole” turned out quite differently from what he prophesied. As already noted, the real per capita cost in the United States of federal public aid rose 70 percent in the 11 years between 1953—the first year the federal government reported an official poverty rate—and Johnson’s 1964 remarks. In the 11 years that followed, however, that same real per capita cost increased by an astonishing 434 percent—that is, more than six times faster than in 1953–64. Far from disappearing, as the president’s statement suggested, the data from the early years of the “War on Poverty” suggest that the dole was flourishing (Gallaway 1965).

The Impact of the Dole on Poverty

As to the effect these increases in public aid had on poverty, in 1953–64, every 10 percentage point increase in public aid was associated with a 1 percentage point drop in the official poverty rate. Compare that with the experience of the 11 years following the outbreak of hostilities in the War on Poverty. During that interval, every 1 percentage point fall in the poverty rate was accompanied by a 50 percentage point increase in real public aid.

What these observations suggest is that the relationship between public aid and the poverty rate is subject to the principle of diminishing returns. In a more formal fashion, it can be stated as follows:

\[
dP/dA = -(a - bA),
\]

where \(dP\) represents the change in the official poverty rate and \(dA\) denotes the change in per capita real public aid expenditures (at 2009
prices). Public aid is defined as all government social benefits to persons, less OASDHI (Social Security) stipends, unemployment compensation payments, and veterans’ benefits. The relationship shown in equation (1) is confirmed by an analysis reported to the United States Congress by Danziger and Plotnick (1985). In the academic world, it is suggested by Brehm and Saving (1964) and Kasper (1968). Murray’s (1984) work is also germane.

Equation (1) implies the following relationship, which is derived by the process of integration:

\[ P = k - aA + (b/2) A^2. \]

This is a Laffer Curve type relationship, which is to say that while public aid initially decreases poverty, there eventually comes a point at which additional increases in public aid increase poverty. The statistical properties of this relationship were explored extensively in the mid-1980s by Gallaway, Vedder, and Foster (1985), as well as Gallaway and Vedder (1985, 1986), using per capita levels as the measure of real public aid. At that time, it was noted that the findings implied the effectiveness of additional real public aid expenditures, as a policy instrument designed to reduce the poverty rate, had been exhausted by the mid-1970s. Indeed, any additional public aid beyond the mid-1970s levels would result in an increase, not a decrease, in the poverty rate.

This article replicates and extends those earlier results through the year 2010. In line with earlier work in the 1980s, we introduced additional control variables in the statistical analysis to account for variations in overall economic conditions. The statistical results for the parameters \( a \) and \( (b/2) \) are reported in Table 1. They are consistent with the earlier analysis and are statistically significant at the 5 percent level. These parameters can be employed to calculate the impact of public aid expenditures on the incidence of poverty in the

\[ \begin{align*}
P &= 29.02 - 0.00987 A + 0.0000037 A^2 - 0.00028 Y + 0.3719 U, \\
(12.28) & \quad (1.74) \quad (2.98) \quad (1.25) \quad (2.38)
\end{align*} \]

\[ R^2 = 0.928, \ ARMA = (0, 3), \ N = 59, \]

where \( P \) denotes the official poverty rate, \( A \) represents real per capita public aid (2009 prices), \( Y \) is real per capita national income (2009 prices), and \( U \) is the annual average unemployment rate. The constant term (29.02) can be thought of as the exogenous baseline poverty rate for this set of time series observations. The value in parentheses beneath each regression coefficient is its t-statistic.
United States. The greatest poverty-reducing effect occurs at $1,291 of per capita expenditures on public aid, which produces a 6.07 percentage point reduction in the overall poverty rate. However, as the level of real per capita public aid rises beyond $1,291, the poverty reducing effect is eroded. At the $1,500 per capita level, the reduction in the poverty rate falls to 5.81 percentage points; at $2,000 per capita, the poverty rate decline is only 3.74 percentage points; at $2,407 of per capita public aid, all of the initial reductions in the poverty rate have disappeared. This is summarized in Table 2.

This inflection point was passed during the first decade of the 21st century. By 2010, real per capita aid stood at $2,697—a level that produces a 2.52 percentage point increase in the poverty rate. Thus, the impact of per capita public aid in 2010 being $1,406 greater than the optimal, poverty-reducing level was to increase the poverty rate by 8.59 percentage points, according to our analysis. Since the official poverty rate in 2010 was 15.1 percent, this implies that in the absence of that extra $1,406 of per capita public aid, the official poverty rate in 2010 would have been 6.5 percent.

Counterfactual propositions, such as the 6.5 percent estimate, can be tricky. For example, this particular estimate is static, taking no account of the dynamic effects that would occur if per capita public aid were to change.

\[^2\text{This value is estimated by setting the } dP/dA \text{ term in (1) equal to zero and solving (1) for } A. \text{ This produces } A = \frac{a}{b}, \text{ where } b = \text{ twice the value of the regression coefficient for the quadratic term in the regression model. The second order condition for (1) indicates that this value of } A \text{ generates a minimum value for } P.\]

---

**TABLE 1**

**REGRESSION PARAMETERS FOR ANALYSIS OF POVERTY RATE-PUBLIC AID RELATIONSHIP**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Aid</td>
<td>-0.00987</td>
<td>-1.74</td>
</tr>
<tr>
<td>Public Aid(^2)</td>
<td>0.000004</td>
<td>2.98</td>
</tr>
</tbody>
</table>

aid was rolled back to $1,291. The decline in government spending accompanying a $1,406 reduction in real per capita public aid would exceed $400 billion. This would lead to a fall in federal spending as a percentage of gross domestic product (GDP), which was reported to be 22.0 percent in 2010. At the 22.0 percent level, federal spending has a significant negative impact on overall economic activity, as was demonstrated in a series of five monographs published in 1995 and 1996 for the Joint Economic Committee of Congress (Gallaway and Vedder 1995, 1996a, 1996b, 1996c, and 1996d). These reports identify 17.5 percent as the critical level of federal government spending as a share of GDP, beyond which any additional spending has the effect of reducing national output.

To be sure, it may be argued that a decline in public aid expenditures could generate a rise in the poverty rate because people have become dependent on public aid. If this is the case, it would suggest that the tradeoff between leisure and work-related income is not very responsive to decreases in income from public aid. However, based on the experience of 1995–2000 (the “Contract with America” years), we are inclined to think this is a minor consideration. During that period, the United States Congress slowed the relative growth in government social benefits to persons. In 1995, all such benefits

<table>
<thead>
<tr>
<th>Level of Per Capita Public Aid</th>
<th>Change in the Poverty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>$500</td>
<td>-3.94</td>
</tr>
<tr>
<td>$1,000</td>
<td>-5.87</td>
</tr>
<tr>
<td>$1,291</td>
<td>-6.07</td>
</tr>
<tr>
<td>$1,500</td>
<td>-5.81</td>
</tr>
<tr>
<td>$2,000</td>
<td>-3.74</td>
</tr>
<tr>
<td>$2,407</td>
<td>0</td>
</tr>
<tr>
<td>$2,500</td>
<td>0.32</td>
</tr>
<tr>
<td>$2,697</td>
<td>2.52</td>
</tr>
<tr>
<td>$3,000</td>
<td>6.28</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
constituted 13.02 percent of personal income, while public aid spending stood at 5.26 percent of personal income. In 2000, those numbers were lower at 12.36 and 4.95 percent, respectively. Over that same period, federal spending fell from 20.3 to 18.4 percent of GDP, the average real GDP growth rate was 4.11 percent, and the official poverty rate declined from 13.8 to 11.3 percent. The behavior of the family assistance subcategory of public aid over this period is particularly interesting. Real per capita family assistance spending fell by 28.7 percent in those five years. These figures do not indicate the existence of a meaningful dependency effect.

This being the case, our counterfactual estimate of the 2010 poverty rate may, in fact, be too high. Taking dynamic factors into consideration would probably lower the figure to less than 6 percent. This implies that the actual poverty rate in 2010 was more than two-and-one-half times higher than it could have been were it not for the excessive use of public aid income transfers as an instrument of policy. In other words, it may be argued that public aid overreach was responsible for approximately 30 million extra people living in poverty in 2010.

This might appear to be a devastating conclusion, but one significant qualification must be noted. The mechanism through which per capita aid income transfers operate to shift people from above the poverty line to below it involves their substituting leisure (nonwork activity) for work-related income. In the process, therefore, there may be some increase in individual satisfaction, since most people prefer leisure to labor. It follows that those who are forced back above the poverty line by reduced public aid might not consider it an improvement in their life condition. Yet this qualification must itself be qualified. Some people, most notably children in low income families, are not shifted across the poverty line willingly—that is, according to choices that they themselves make. Rather, they are at the mercy of their parents’ economic decisions.

In 2010, 21.1 percent (15.75 million) of America’s 70 million children were classified as living in poverty. The extent to which this can be attributed to adult decisions made in response to the availability of public aid can be estimated based on our counterfactual estimate of what the overall poverty rate would be if public aid expenditures were reduced to their optimal poverty-minimizing level. Recall that our static estimate of that rate is 6.5 percent; at that level, 55.6 percent of the actual poverty rate of 15.1 percent is induced by excessive public
aid payments. If that same fraction (55.6 percent) is applied to the total child poverty population, then 8.75 million children live in poverty. This suggests that one in every eight American children is living below the poverty line because public aid payments exceed the level that would minimize the poverty rate. It can hardly be argued that the adult decisions that have taken those children’s families into official poverty have redounded favorably on the conditions of their life.

Of course, this is a lower bound estimate of the impact of excessive public aid expenditures on child poverty, since no account is taken of dynamic effects. If those effects were to reduce the counterfactual poverty rate by another full percentage point, to 5.5 percent, the estimated number of children living in poverty due to excessive income transfers would rise to 10 million children, or one child out of every seven.

Poverty and Income Inequality

Beyond the poverty question, there is the closely related issue of inequality in the distribution of income. Very recently, this matter has resurfaced in a major fashion in a variety of arenas—academic, political, and popular—largely due to the publication of Thomas Piketty’s (2014) book *Capital in the Twenty-First Century*, which makes an argument for the forceful use of economic policy to reduce inequality.

For our purposes, we will begin by establishing some stylized facts about income inequality in the United States. There are multiple ways to measure income inequality, such as Gini coefficients, Palgini coefficients, the ratio of the income share at the top to the share at the bottom of the distribution, or reference to movement between income quintiles over time. There are also several income-receiving units on which to base measurement of income inequality—you can use individuals, households, or families. Whatever measurement paradigm is employed, they often, but not always, tell a similar story. In this discussion, we will focus on the ratio of the share of income received by the top 5 percent of families to the share of income that accrues to the bottom quintile. The data needed to calculate such a ratio are reported for families by the Census Bureau on an annual basis beginning with the year 1947. Such information is also available on a household basis, but only starting in 1962. We have chosen to analyze the family data because important changes in the ratio took place in the years 1947–61.
The results of calculating the necessary ratios are reported in Table 3. The data are presented in the form of five-year averages, beginning with the period 1947–51. The averaging technique is employed to smooth the data. For the earliest period, the ratio averaged 3.59. In the ensuing years, it consistently fell in each successive interval until, over the period 1972–76, it reached a value of 2.73. During this particular period, in 1974, the share of income accruing to families in the bottom quintile reached 5.7 percent, which was the high for all the years 1947 through 2011. In that same year, the share of income for the top 5 percent was under 15 percent. Between 1947–51 and 1972–76, the top 5 percent to bottom quintile ratio declined by 24 percent. This suggests that income inequality in America declined consistently for three decades.

All this changed dramatically in the years that followed. In the period 1977–81, the top to bottom ratio rose slightly to 2.76. This marked the beginning of a continuous rise in our chosen inequality statistic. What began as a very small increase rapidly accelerated.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Average Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947–1951</td>
<td>3.59</td>
</tr>
<tr>
<td>1952–1956</td>
<td>3.39</td>
</tr>
<tr>
<td>1957–1961</td>
<td>3.23</td>
</tr>
<tr>
<td>1962–1966</td>
<td>3.04</td>
</tr>
<tr>
<td>1967–1971</td>
<td>2.82</td>
</tr>
<tr>
<td>1972–1976</td>
<td>2.73</td>
</tr>
<tr>
<td>1977–1981</td>
<td>2.76</td>
</tr>
<tr>
<td>1982–1986</td>
<td>3.25</td>
</tr>
<tr>
<td>1992–1996</td>
<td>4.78</td>
</tr>
<tr>
<td>1997–2001</td>
<td>5.00</td>
</tr>
<tr>
<td>2002–2006</td>
<td>5.18</td>
</tr>
<tr>
<td>2007–2011</td>
<td>5.24</td>
</tr>
</tbody>
</table>

Over the next 15 years, from 1981 to 1996, it increased by 73 percent, rising to an average of 4.78 in the period 1992–96. After that, the inequality measure continued to grow, but more slowly. By 2007–11, it averaged 5.24. In about a third of a century, in other words, our measure of income inequality had nearly doubled.

In a broad sense, this is a familiar pattern, mimicking the behavior of the poverty rate. In the case of the poverty measure, up to the mid-1970s, government cash income transfers (public aid) were increasing the incomes of those in the bottom quintile of the income distribution by more than work-disincentive effects were reducing them. The result was a reduction in the official poverty rate. It is not a coincidence that the poverty rate reached a low of 11.1 percent in 1973, the year before the share of income garnered by the bottom quintile reached its high of 5.7 percent. However, as the volume of public aid payments continued to increase, the work-disincentive effect more than offset the income enhancements generated by the flow of public aid. As this happened, the poverty rate began to drift upward and the percentage share of all income received by those in the bottom quintile of the income distribution began what would turn out to be a long and steady decline.

The impact of excessive public aid payments on the share of money income received by those in the bottom quintile is illustrated by the decline in that share from 5.7 percent of total income in 1974 to 3.8 percent in 2010 (and 2011 and 2012). Such a relationship was verified in a more formal analysis presented in Vedder, Gallaway, and Sollars (1988) and extended in Gallaway and Vedder (1989). These findings reflect the Laffer Curve type effects of increasing public aid payments, and if those effects are ignored by economic policymakers, they will tend to result in outcomes that seem, at first, to be puzzling. Such results are often dismissed as unintended consequences. But unintended or not, they are real consequences. The upshot of this is that for 40 years, a policy agenda has been pursued in the name of reducing income inequality that has, in effect, produced increasing inequality.

Conclusion

This article has updated an analysis first conducted nearly 30 years ago by Richard Vedder (Vedder, Gallaway, and Sollars 1988). When the conclusions of that work were presented to the United States
Congress, either in the form of appearances before congressional committees (Gallaway, Vedder, and Foster 1985) or as a major monograph published by the United States Government Printing Office (Gallaway and Vedder 1986), they were greeted with a combination of disbelief, disdain, and even, at times, ridicule on the part of the governing congressional majorities of the time. The findings of Vedder and others were ignored by those majorities as they continued along the same path they had pursued since the inception of the War on Poverty. And that, roughly speaking, brings us to where we stand today.

The status of the American economy at the present juncture is illustrated by the information displayed in Table 4. Six separate, but

**TABLE 4**  
**Changes in the U.S. Economy, 1947–2010**

<table>
<thead>
<tr>
<th>Statistic</th>
<th>1947</th>
<th>1974</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Transfers as a Percentage of Personal Income</td>
<td>6.18</td>
<td>9.79</td>
<td>18.0</td>
</tr>
<tr>
<td>Federal Spending as a Percentage of GDP</td>
<td>14.8</td>
<td>18.7</td>
<td>22.0</td>
</tr>
<tr>
<td>Average GDP Growth Rate since Previous Date</td>
<td>—</td>
<td>3.88</td>
<td>2.73</td>
</tr>
<tr>
<td>Percentage Share of Income of Bottom Quintile</td>
<td>5.0</td>
<td>5.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Ratio Income Share of Top 5 Percent to Share of Bottom Quintile</td>
<td>3.50</td>
<td>2.56</td>
<td>5.26</td>
</tr>
<tr>
<td>U.S. Poverty Rate as a Percentage of Population</td>
<td>31.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>11.2</td>
<td>15.1</td>
</tr>
</tbody>
</table>

<sup>a</sup>This is not an official poverty rate. The earliest year in which the federal government provides an official poverty estimate is 1953. The value shown here is taken from Gallaway (1965) and represents the percentage of families with less than $3,000 annual income, measured at 1963 prices.

**Sources:** U.S. Department of Commerce, Bureau of the Census and Bureau of Economic Analysis.
related statistics are presented for three different years, 1947, 1974, and 2010. The first of the six statistics featured is the percentage of personal income that takes the form of government transfer payments. In 1947, this number stood at 6.18 percent. At that point, one out of every 16 dollars of personal income took the form of a government transfer. By 1974, this percentage had reached 9.79 and 36 years later, in 2010, it had ballooned to 18. The transfers referred to include all government programs, such as Social Security, unemployment compensation, veteran’s benefits, and the public aid payments used in our poverty rate analysis. Those public aid programs became a more significant portion of total transfers over time. In 1947, at 1.47 percent of personal income, they totaled 24 percent of the income transfer package. By 1974, public aid as a percentage of personal income had risen to 2.86 and accounted for 29 percent of all transfers. The relevant numbers for 2010 were 6.78 percent of personal income and 38 percent of all transfers.

The second of our six statistical information groups is total federal spending as a percentage of GDP. Here, the pattern is one of persistent growth, rising from 1947’s 14.8 percent to 18.7 percent in 1974, and then to 22.0 percent in 2010. The significance of the overall level of federal spending lies in the finding that federal spending in excess of about 17.5 percent of GDP has a negative effect on the level of national output by slowing economic growth. By 1974, all of the output gains possible from expanding the size of the federal government had been captured and we had moved very modestly into the range where additional spending is counterproductive. Today we are very significantly into that range.

These developments are reflected in the third of our statistical categories, the average annual growth rate in GDP. Between 1947 and 1974, a simple average of the annual growth rate in the United States’ GDP is 3.88 percent. Over the following 36 years, that average declines to 2.73 percent a year. What is the significance of a difference of this magnitude? To answer that question, consider a simple thought experiment. Imagine a person born in 1953, who enters the labor market in 1974 (at age 21), and then lives another 60 years until 2034. What will happen to national output during those 60 years? Assuming a continuation of the post-1974 real growth rates and setting 1974 equal to 100, real GDP in 2034 would be equal to 495. However, if beyond 1974, real output had grown at a rate of 3.88 percent a year, the index of real output would be at 930 in 2034.
If typical lifestyles reflected exactly levels of real output, our imaginary individual would be enjoying a lifestyle barely half as good as it might have been.

The last three of our statistics show changes in the poverty rate and movements in the pattern of income inequality. These have been discussed in detail previously. Their behavior fleshes out the picture of an economy suffering through the early stages of what might best be called creeping stagnation. The full scenario is a straightforward one. Attempts to ameliorate economic inequalities through the War on Poverty involved escalating the volume of public aid transfers. Individual behavioral responses to this additional flow of income produced dynamic effects that led to unintended consequences. In a more informed world, these consequences would not be passed off as unintended. They would have been anticipated. Further, they would have been recognized at an early stage of their appearance. Alas, that was not the case. Instead, policymakers continued to expand the public aid expenditures that have increased the relative size of the federal government to an overall level that reduces economic growth. All these outcomes—slower economic growth, higher poverty rates, and greater income inequality—are the predictable unintended consequences of the War on Poverty.

References


Has the War between the Rent Seekers Escalated?

Russell S. Sobel and Joshua C. Hall

In their 1991 paper in Public Choice, “The War between the Rent Seekers,” Richard Vedder and Lowell Gallaway develop and test a unique theory about the interactions between the levels of spending captured by rent-seeking interest groups. Their model hypothesizes that at low levels of government spending and/or political influence, interest groups complement each other. Multiple groups can simultaneously push for new taxes and higher levels of government spending that benefit all groups. They point to many states enacting new income taxes in the 1960s and 1970s as an example. In this part of the interaction, additional political pressure by one group results in the pie growing for all rent seekers.

At some point, however, this relationship switches from complementarity and cooperation to conflict, competition, and a war between the groups over funding. In a Laffer-curve-type relationship, at some point revenue maximization occurs, new tax sources become satiated, and beyond that point a rent-seeking group can only gain at the expense of other groups. They depict their model graphically, and argue that the groups most well suited for testing the model are public school teachers and welfare recipients. We recreate their original graphical model in Figure 1, which illustrates that as...
public school teachers initially push for higher salaries, the pie expands and public welfare recipients also gain additional government spending. However, as school teachers continue to push for higher salaries, the positive relationship turns negative, and higher teacher salaries only come at the expense of funding and benefits for welfare recipients.¹

Vedder and Gallaway empirically test their model using data for 1986 (or fiscal year 1985–86 where appropriate). They find strong support for their model:

The results suggest that beyond $474.58 in per capita welfare spending, teacher salaries are negatively associated with increased public assistance expenditures; at lesser amounts, a positive relationship is observed. Five jurisdictions—New York, Massachusetts, Rhode Island, Alaska and the District of Columbia—had welfare spending in the negative range. In

¹Vedder and Gallaway’s theory is in stark contrast to Becker’s (1983) theory in which the political influence of interest groups is basically a zero-sum game, and the nature of the competition between rent seekers is independent of the size of government.
those states, the evidence suggests that gains to welfare recipients occur in conjunction with income losses to teachers [Vedder and Gallaway 1991: 287].

They proceed to argue that because state and local government spending is growing through time, this Laffer-type relationship should be getting stronger through time, with more states moving into the upper portion where rent-seeking interest groups are at “war” with each other:

Since state and local government spending has been rising over time, not only in absolute real terms but also as a percent of personal income, it is possible that in earlier years the quadratic relationship observed above did not exist; no states had reached the point where rent-seeking had become a zero sum game for participants. To test this possibility, we replicated the model used in the table for 20 years earlier, the 1965–66 fiscal year [Vedder and Gallaway 1991: 287].

Indeed, using data from 20 years prior, they find that all states were on the lower portion and the relationship was positive and linear, suggesting that through time more states are moving into the negative upper portion of the figure:

The quadratic (competitive) relationship between teacher salaries and welfare payments seems generally to be a recent phenomenon, although it appears that the previous linear (cooperative) relationship has been weakening over the past generation [Vedder and Gallaway 1991: 288].

In the concluding section of their article, they predict that through time more states should move into this upper area of the relationship where rent-seeking interest groups are at war with each other:

In conclusion, it seems some states have experienced spending growth to the point where economic and political constraints on that growth have led to a situation where rent seekers can gain only at the expense of other rent seekers. As that fact becomes recognized, peaceful, cooperative political action between rent seeking groups that prevailed when such action resulted in a larger expenditure (rent) pool might give way to war between the rent seekers. If state and local
spending continues its relative growth, we would expect the war between rent seekers to spread to other jurisdictions [Vedder and Gallaway 1991: 288].

In this brief empirical note, we attempt to see if their prediction is correct by moving their model 20 years into the future, using the exact same data sources and model in the original article. Our results do indeed suggest that Vedder and Gallaway’s (1991) prediction has come true. We now find roughly nine states, almost double the number in 1986, have moved into the upper range of the relationship.

Empirical Model and Results

Vedder and Gallaway (1991) postulate a quadratic model as follows:

(1) \[ R = a + bX - cX^2, \]

where \( R \) is the rent payment to one group (as measured by average teacher salaries, their base rent-seeking group), and \( X \) represents spending on other governmental expenditures. In practice, they argue, it is best to single out welfare spending, so they estimate a final model of the form:

(2) \[ S_i = a + bP_i - cP_i^2 + dO_i - eO_i^2 + W_i + \varepsilon_i, \]

where \( S_i \) is the average public school teacher salary in state \( i \), \( P_i \) is public assistance spending per capita in state \( i \), \( O_i \) is other non-education, nonwelfare state and local government spending, and \( W_i \) is the average annual pay for all nonagricultural workers to control for variations in local labor market conditions. They estimate their model using data for 1986 using all 50 states and the District of Columbia. As mentioned previously, they also estimate their model for 20 years prior, 1966 for comparison, but find only a (positive) linear finding for 1966, and then predict that as government grows through time that more and more states will end up in situations where rent seekers are at war, taking from each other, on the upper portion of the curve.

We now have the advantage of being far enough into the future to test their prediction. That is, we can go 20 years into the future to see what has changed, if anything. We use data for 2006, to compare to their results for 1966 and 1986. Using data for 2006 not only has the
advantage of being the identical match of time as their 20-year gap, but it also allows us to estimate the relationship without the recent Great Recession clouding our results. A final advantage is that we can use their same data sources (i.e., National Center for Education Statistics 2007 and U.S. Census Bureau 2010).

The results are presented in Table 1, and a column showing Vedder and Gallaway’s original results for 1986 is also included. The

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (absolute t-statistic)</th>
<th>Coefficient (absolute t-statistic)</th>
<th>Coefficient (absolute t-statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>$-1,878.494$</td>
<td>$-6,190.420$</td>
<td>$-6,255.220$</td>
</tr>
<tr>
<td>Welfare ($P$)</td>
<td>$18.034***$</td>
<td>$22.565***$</td>
<td>$22.523***$</td>
</tr>
<tr>
<td>Welfare Squared ($P^2$)</td>
<td>$-0.019**$</td>
<td>$-0.007***$</td>
<td>$-0.007***$</td>
</tr>
<tr>
<td>Other ($O$)</td>
<td>$3.876***$</td>
<td>$0.605$</td>
<td>$0.660$</td>
</tr>
<tr>
<td>Other Squared ($O^2$)</td>
<td>$-0.000*$</td>
<td>$0.000$</td>
<td>$-$</td>
</tr>
<tr>
<td>Wage ($W$)</td>
<td>$0.957***$</td>
<td>$0.865***$</td>
<td>$0.864***$</td>
</tr>
<tr>
<td>$R^2$</td>
<td>$0.859$</td>
<td>$0.764$</td>
<td>$0.764$</td>
</tr>
<tr>
<td>F-statistic</td>
<td>$62.158$</td>
<td>$88.349$</td>
<td>$106.258$</td>
</tr>
</tbody>
</table>

**Notes:** The results for 1986 are taken directly from Vedder and Gallaway (1991: 287); absolute t-statistics in parentheses. Their original results only contain three decimal places, and this format was continued. The model was estimated using heteroskedasticity-robust standard errors. * indicates significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.
results for 2006 seem to clearly support their prediction that the quadratic relationship between education and welfare is now stronger. The quadratic relationship with other spending, however, is not present as it was in the main results in Vedder and Gallaway (1991). In other specifications in their article, however, Vedder and Gallaway find the relationship with other spending to be weaker as well and actually omit it in order to see how it affects the primary relationship between average teacher salary and welfare spending per capita. Thus, we also show the results both with and without the quadratic (squared) term on other spending. The main relationship between teacher salaries and welfare payments is unaffected by whether this variable is omitted or included.

Their original results suggested that in 1986, beyond $474.58 in per capita welfare spending, teacher salaries are negatively associated with increased public assistance expenditures (and below that value a positive relationship existed). They find that five jurisdictions were in the negative range: New York, Massachusetts, Rhode Island, Alaska, and the District of Columbia. Our updated results for 2006 suggest a value of $1,617 ($879 in 1986 dollars). In 2006, there are now nine states above this level. In addition to the five original states and District of Columbia from Vedder and Gallaway (1991), Maine, Vermont, Minnesota, and Pennsylvania have joined the list. It is interesting to note that in their 1991 article, they mentioned that Minnesota was one of the few states close to, but just below, the threshold. We have two states within 10 percent of our threshold: New Mexico and Delaware.

Conclusion

In “The War between the Rent Seekers,” Richard Vedder and Lowell Gallaway (1991) develop and test a unique theory about the interactions between rent-seeking interest groups. In the conclusion of their article, they make a bold prediction about the future: “If state and local spending continues its relative growth, we would expect the war between rent seekers to spread to other

\textsuperscript{2}Using the CPI, in 2006 dollars, their value of $474.58 would become $872.95.

\textsuperscript{3}It is unclear why the threshold has risen in real terms over time beyond the fact that incomes have also risen and so the amount of revenue raised for any given tax rate has increased.
jurisdictions” (1991: 288). By this they meant more states entering the backward-bending portion of their hypothesized Laffer-type relationship.

Our results strongly suggest they were right. The number of states where rent seekers are now at war has approximately doubled, from five to nine, with two more states nearing the threshold. While the theory of their article is about rent seeking, their empirics focused on teachers and those receiving public assistance. While not a focus of our empirical note, further research should examine whether new implicit battles have broken out between interest groups. For example, the rise in public health care expenditures at the state level seems to have coincided with a decline in state appropriations to higher education in many states.

References


A New Measure for the Variation of State Tax Prices

Michael D. Stroup and Keith E. Hubbard

Richard Vedder’s contributions to academic scholarship over the decades span many subdisciplines in economics. Many of his earlier works focused on various issues in state and local government finance. In a 1990 article, in this journal, he examined the relationship between interstate tax-price variation and state economic growth (Vedder 1990) to determine whether such variability might impact state prosperity and economic growth.

In part, Vedder’s empirical analysis used the coefficient of variation across state tax prices in a given year to reveal whether “convergence” or “divergence” better described the behavior of state tax prices over time. He acknowledged that the results of this examination would be difficult to interpret because of confounding influences on the variability of state tax prices that are beyond the control of a state tax policy. This begs the question: Could a better measure of variability be constructed to control for such influences? This article attempts to do just that.

The first section of this article explains Vedder’s methodology for measuring interstate tax-price variability and the challenging issues that he identified as confounding his attempt to determine whether such variability was rising or falling over time. The second section proposes a new measure for such variability and explores its

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usefulness in controlling for these confounding issues. The penultimate section uses empirical data to generate annual values of this measure across two decades of available tax data. The conclusion summarizes these results and considers how such information may drive forward the work that Vedder initially pursued.

Vedder’s Methodology

To better understand the impact of state tax policy on prosperity and economic growth, Vedder describes two competing models that explain how states attract and sustain a viable tax base for supplying goods and services. Both models attempt to describe interstate tax policy as a competition between states, but the models produce dissimilar tax-price implications. According to one model, state governments compete primarily on tax price; this model predicts converging tax prices across state jurisdictions. In the other model, state governments compete on the quantity (or quality) of publicly funded goods and services; here the prediction is for divergent tax prices across states.

The first model Vedder considers is actually a blend of two separate models of public economics. The Brennan and Buchanan (1980) perspective assumes state governments behave like firms, selling goods and services to a customer base of taxpayers that is somewhat captive, due to nontrivial relocation costs. This is combined with Niskanen’s (1971) perspective, in which bureaucratic rent-seeking activity causes the inefficient production of these goods and services. Any one state government’s market power to set a tax price for supplying a given quantity of goods and services is limited by the ability of the taxpayers to migrate to another state that is perceived as offering a more favorable tax price. Further, if the inefficiency in supplying goods and services due to bureaucratic rent-seeking activity increases proportionately with the quantity of government goods and services produced, state taxpayer perceptions of tax prices relative to the value of state goods and services received worsens proportionately as well. This intensifies state taxpayers’ search for a state jurisdiction with the best tax price for state-provided goods and services. The implication of this blended model is that state tax prices for goods and services tend to converge across states that compete on tax price to attract a sustainable base of taxpayers.

The second model that Vedder considers is that of Tiebout (1956), in which state taxpayers are assumed to have diverse preferences for
the size and scope of state-provided goods and services. These taxpayers are assumed to be fairly mobile across state jurisdictions, with the ability to shop across a diverse collection of state-supplied baskets of goods and services, in an effort to find one that best fits their unique preferences. This means that state governments compete by offering differing quantities (or qualities) of goods and services to attract a sustainable customer base of taxpayers within their constituency. The implication of this model is that state tax prices for goods and services tend to diverge across the states.

To explore whether U.S. economic history supports one model over the other, Vedder collects data from various years on state own-source tax revenues. These are expressed in two ways: first, per capita; second, per dollar of personal income in the state in question. Vedder then calculates the coefficient of variation in each of these two measures across the 48 contiguous states for selected years. The objective of this longitudinal analysis was to detect whether such state tax-price variation tended to converge or diverge over time. Unfortunately, the data did not speak as clearly as Vedder hoped.

The trend in variation of per capita revenue data from 1902 to 1942 appears to support the Brennan and Buchanan model of tax-price convergence, but the trend in variation of revenue per dollar of personal income from the same period appears to support the Tiebout model of tax-price divergence. Vedder notes that this dichotomy may arise from a substantial decline in per capita income variation across the states during this time period, which could create the appearance of state tax-price convergence. Thus, analysis of this time period reveals the first limitation of measuring variation in this manner: the coefficient of variation of state tax prices does not control for interstate income differentials. As a result, these measures may not accurately reflect the underlying trends in cross-state convergence or divergence in tax prices.

Examining the trend in interstate tax-price variation from 1942 to 1962 appears to support the Brennan and Buchanan model of tax-price convergence, regardless of which measure is used. However, Vedder notes that federal income tax rates escalated over this period. He warns that taxpayers’ ability to deduct their state tax burden from their federal tax liability might effectively lower their perceived tax price of state-provided goods and services, even if state tax prices remain stable. Furthermore, the remaining period of 1962 to 1988 is largely characterized by a general return to stability in interstate
variation of tax prices. Vedder notes that high marginal federal income tax rates declined significantly over this time period, lowering the benefits of deductibility. He warns that state tax burden deductibility might effectively increase taxpayers’ perceived tax price, even if no real change in state tax prices had occurred.

Taken together, analysis of the time period 1942–88 reveals the second limitation of using the data in this manner: the measure of the interstate coefficient of variation does not control for changes in the federal tax burden that arise from state tax deductibility or from changing federal income tax rates. Again, this means that the resulting measures may not accurately reflect the underlying trends in cross-state convergence or divergence in tax prices.

In order to properly discern which of the two models—Brennan-Buchanan or Tiebout—more accurately reflects interstate competition, one must develop a measure of interstate tax-price variation that accounts for both interstate variation in per capita income and for changes in state taxpayer’s perceived federal income tax burden. The next section proposes a way to do exactly that.

A New Measure of Interstate Variation in Tax Prices

Consider how the Gini coefficient measures the degree of income inequality across population groups. Using the graph in Figure 1, below, a 45 degree line out of the origin depicts a near-perfect cumulative income distribution across a given number of population segments (x). The Lorenz curve, L(x), depicts the actual cumulative income distribution across the population. The Gini index is the ratio of area A to the total area under the 45 degree line (A + B + C). When income becomes more evenly distributed, the Lorenz curve becomes flatter, area A becomes smaller and the Gini index value approaches zero. When income becomes more unevenly distributed, the Lorenz curve becomes more skewed, area A becomes larger and the Gini index value approaches unity. In this way, the Gini index value reflects the degree of income inequality of the population on a scale of zero to one.

A measure for interstate variation in tax prices for goods and services can be created using a similar approach. First, consider how each state’s share of national personal income (expressed in per capita terms) can be accumulated from the poorest state to the richest state. This creates a type of Lorenz curve, L(x), which represents how
national personal income is actually distributed across the \((x = 50)\) states. If states exhibited more variation in per capita income, the curve would become more skewed; area \(A\) would increase relative to area \(A+B+C\), and the Gini index would increase. If states exhibited less variation in per capita income, the curve would become less skewed; area \(A\) would decrease relative to area \(A+B+C\), and the value of the Gini index would fall.

Next, consider the net tax price of publicly provided goods and services within a state. State and local own-source tax revenue data can be collected for each state and expressed in per capita terms. Also, the net federal taxes collected for each state can be calculated as the difference in total federal income tax payments made by the taxpayers of each state, less the total federal grants in aid received by each state, also expressed in per capita terms. The net tax price for each state can then be calculated as the sum of these three different per capita measures. Next, each state’s own share of national tax expenditures (expressed in per capita terms) can be accumulated along the horizontal axis from the poorest state to the richest state, as
already ordered when constructing the Lorenz curve. This creates a net tax-price curve, \( T(x) \), that represents how net tax prices are distributed across the 50 states.

Finally, information from the Lorenz curve and the net tax-price curve can be combined to produce an interstate tax-price variation index that is similar to a tax progressivity index introduced by Stroup (2005) and further developed by Stroup and Hubbard (2013). Referring to Figure 1, above, area B can be expressed as a ratio of area \( B+C \) to create a tax-price variation index that is akin to the Gini index. If interstate variation in net tax prices were to increase, all else being equal, the net tax-price curve would become more skewed; the size of area B would increase relative to area \( B+C \), and the value of the tax-price variability index would rise. The higher index value reflects the greater tax-price divergence across the states. This method of measuring interstate variation would control for the very issues that confounded Vedder’s initial analysis, as explained below:

- **Variation in per Capita Incomes across the States**: If interstate variation in per capita income were to increase, all else being equal, the Lorenz curve would become more skewed. Area B would decrease relative to area \( B+C \), and the tax-price variability index would fall. This decrease in the index value would reflect how interstate tax prices had converged relative to the new personal income variation that exists across the states.

- **The Deductibility of State Tax Burdens on Federal Income Taxes**: If the scope of state tax burden deductibility from federal income taxes were to expand, all else being equal, this would lessen the perceived impact of federal income tax burdens more intensively among taxpayers in those states with higher per capita incomes, because taxpayers with higher median incomes face higher marginal tax rates in a progressive federal income tax system. This causes the net tax-price curve to become less skewed, as the higher-income state taxpayers enjoy a bigger federal tax break than the lower income state taxpayers. This means area B decreases as a ratio of area \( B+C \), thereby reducing the value of the interstate tax variation index. This decrease in the index value reflects a convergence of interstate tax prices that stems from the perception that state tax prices are lower due to a declining federal tax burden.

- **Changes in the Federal Income Tax Rates**: If federal income tax rates declined, all else being equal, the deductibility of state
taxes combined with a progressive federal tax rate structure implies that the perceived impact of any given state tax burden would be felt more heavily by those states with wealthier median-income taxpayers. This is because the discount on federal tax burdens arising from state tax deductibility has, in this scenario, diminished more severely for those states with relatively higher income taxpayers. As a result, the tax-price curve would become more skewed, since those state taxpayers with higher median incomes would lose more of their federal tax break than the lower income state taxpayers. As a result, area B would increase as a ratio of area B + C, thereby raising the value of the interstate tax-variation index. This increase in the index value reflects a divergence of interstate tax prices, as falling federal tax rates give the impression of higher effective state tax prices.

Once the personal income and net tax-price data for all 50 states are arranged from lowest to highest per capita state income, the net tax-price curve will be everywhere below the Lorenz curve, as represented in Figure 1. However, accumulating each state’s data point from the smallest per capita income state to the largest may not create a curve that always increases as states are added. Some states may have a negative state tax price if total federal grants received exceed both federal and state taxes collected, which would create a negative slope between two state data points on the curve. Regardless, the curve must still eventually rise to reach 100 percent of all revenues collected. This means the value of the index will rise as the interstate variation in net tax price rises and will fall when interstate variation in net tax price falls. Further, the ratio still approaches the value of zero when interstate variation is minimized and approaches the value of one when it is maximized.

Estimating the Interstate Tax-Price Variability Index

Ultimately, this net tax-price index can be estimated for each year of available data to provide an annual, cross-sectional analysis that shows whether net tax prices have converged or diverged across states over time. The pertinent areas of the graph in Figure 1 can be calculated using the observations from the 50 states to estimate a Lorenz curve, \( L(x) \), and a net tax price curve, \( T(x) \). These curves can be estimated using a simple linear spline function for each year of
data. While using tax data from the same years as Vedder’s original analysis would provide the optimal comparison, not all data for those specific years are available.

State per capita personal income can be downloaded from the Bureau of Labor Statistics (www.bls.gov). Data for per capita, own-source state and local tax burdens for each state can be downloaded from the Tax Foundation (www.taxfoundation.org), but only for the years 1985 through 2005, which proves to be the limiting factor in determining the time period used for this analysis. The federal income taxes collected from each state, as well as the grants in aid given back to each state, can also be downloaded from the Tax Foundation for this time period. These federal data are then converted to per capita terms using state population data downloaded from the U.S. Census Bureau (www.census.gov). Figure 2 shows two sets of Lorenz and net tax-price curves that have been estimated for the years 1985 and 2005, to illustrate the change in interstate variation in tax prices over that time.

As described above, these graphs can be used to calculate both a Gini index and an interstate tax variation index. The results of such calculations are outlined below:

- **The Gini Index**: Table 1 reveals the value of the Gini coefficient when using state per capita personal incomes to estimate a Lorenz curve for the 50 states. The data series creates a mean of 0.060 and a standard error of 0.001. This implies that the value of the Gini index is not significantly different from the series mean of 0.060 for either 1985 or 2005, using the traditional 5 percent error level. Those years where the Gini index exceeded these 95 percent confidence bounds are denoted with an asterisk. While the index values were above this confidence interval for the early years of 1986 to 1990, they were below the interval for the middle years of 1994 to 1997. The index values exceeded these bounds for only two of the last eight years of the data, implying that the Gini index generally returned to the series mean during the last third of this period. Taken together, this evidence implies that interstate income inequality has neither consistently increased nor decreased across the two decades from 1985 to 2005.

- **The Interstate Tax Variation Index**: Table 2 reveals the value of the interstate tax-price variation index for the same years. The data series create a mean of 0.207 and a standard error of 0.018.
FIGURE 2
CUMULATIVE STATE PER CAPITA INCOME AND NET TAX-PRICE CURVES

1985

2005
Those years where the tax variation index exceeded the 95 percent confidence interval about the series mean are denoted with an asterisk. While the tax-variation index values were below this confidence interval for each of the early years of 1985 to 1991, they rose above the mean for each of the latter years of 2001 to 2005. This implies that interstate tax-price variability consistently and significantly increased over these two decades, having fallen in value only twice in a span of over 20 years. In other words, state tax prices clearly diverged in the two decades from 1985 to 2005.

Ultimately, these empirical results indicate that cross-state variation in tax prices increased from 1985 to 2005, while cross-state variation in prosperity remained relatively unchanged. This implies that rising income inequality across the states would not confound the

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>ANNUAL GINI INDEX VALUES</th>
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<tbody>
<tr>
<td>Gini Index</td>
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*Gini index exceeded the 95 percent confidence interval.

<table>
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<tr>
<td>Year</td>
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</tr>
<tr>
<td>Tax Index</td>
<td>0.206</td>
</tr>
</tbody>
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*Gini index exceeded the 95 percent confidence interval.
direct implications arising from a rising inequality in state tax burdens across the two decades in question. While the blended Brennan and Buchanan/Niskanen model predicts a convergence in state tax prices, the observed divergence in tax prices across these two decades clearly lends support to the Tiebout model of interstate competition for a viable tax base, which suggests that governments vie with one another for taxpayers by offering differing quantities (and/or qualities) of publicly funded goods and services.

The data also reveal that some states enjoy a net negative tax price for their publicly provided goods and services, which is exhibited whenever the tax-price curve has a negative slope between states. Most (but not all) of these states have the lowest median incomes. This is to be expected when income is redistributed among states within a system of fiscal federalism. Such redistribution tends to create the negative slope portions of the tax-price curve across those states with the lowest per capita incomes, as exhibited in the 2005 graph in Figure 2.

For example, 10 states enjoyed negative tax prices in 2005, including Alaska, North Dakota, New Mexico, Mississippi, Louisiana, West Virginia, and Alabama. The last five of these were all in the lowest quartile of states when ranked by per capita state income. North Dakota narrowly misses being included in this poorest quartile, having the 14th lowest per capita income in 2005.

While it may appear that all of the residents in a negative tax-price state enjoy being paid to consume publicly provided goods and services, it is only on average that this is true. Not all taxpayers within that state will, in fact, have a negative net tax bill. Even if the state in question did not have a progressive state tax system to collect own-source revenues, the federal income tax system is still quite progressive. This implies that upper income taxpayers in a negative net tax-price state still pay a positive net tax price for consuming state-provided goods and services.

Conclusion

The purpose of this analysis was to develop and test a new measure of interstate variation in tax prices for state-provided goods and services. This effort arose in response to Vedder’s initial attempt at measuring such variation by using the coefficient of variation in either per capita spending on state-provided goods and services, or in
spending as a ratio of personal income. He recognized that this simple measure failed to control for changes caused by variation of per capita incomes across states, by variation in marginal federal income tax rates, and by variation in the deductibility of state tax burdens over time. As such, it was difficult for him to identify the influence that interstate tax-price variability might have on state prosperity and economic growth.

This article has proposed a new measure of interstate tax-price variability that is based on the methodology of the Gini index used for measuring income inequality across a population. This new measure conceptually accounts for the influence that any changes in the interstate income distribution might have on the interstate variability of tax prices. It also conceptually accounts for the influence of taxpayer perceptions of state tax prices, which might result from changes in federal income tax deductibility of state tax burdens, or from changes in marginal federal income tax rates.

Using annual data from 1985 to 2005, our estimate of the value of this new measure implies that interstate variation in median personal income varied earlier in this period, but then returned to its mean value. In contrast, the interstate variation in net tax prices increased nearly every year over the time period in question. This growing divergence in net tax prices across states appears to support the state tax-price divergence predicted by the Tiebout model of interstate competition for a viable tax base, rather than the convergence in state tax prices predicted by the blended Brennan and Buchanan/Niskanen model.

A better measure of interstate tax-price variability would surely inform the body of empirical research that Vedder was pursuing. He wrote that “the empirical evidence continues to suggest that the growth-inducing effects of governmental expenditures, on balance, are less than the growth-impeding effects of taxes used to finance those expenditures” (Vedder 1990: 106). Having a more accurate estimate of interstate tax-price variability would have allowed for a better comparison between states with high versus low tax prices, while controlling for the level of tax-price variability across the states. While that effort is beyond the intended scope of the present analysis, perhaps the measure of interstate tax-price variability that we have developed here will support further empirical research in this area.
References


Proposals for government spending cuts are almost always accompanied by doomsday predictions from Keynesian-influenced economists. For example, Richard K. Vedder documents that when the Second World War ended in 1945, Keynesians loudly declared that if government spending declined, the economy would return to the Depression-era conditions of the 1930s (Vedder and Gallaway 1991, 1998; Taylor and Vedder 2010). In fact, the government’s role in the U.S. economy declined dramatically as government spending went from 41.8 percent of GDP in 1945 to only 17.9 percent in 1946. Furthermore, over 9 million military personnel returned to civilian economic life and millions of civilian jobs related to the war effort disappeared. In anticipation of these cuts, the consensus forecast was that the unemployment rate would return to the double-digit numbers of the 1930s. Yet, despite the large government contraction, unemployment was less than 2.3 million, or a rate of 3.9 percent, in 1946, and 2.6 million, or a rate of 4.4 percent, in 1947—achieving “full employment,” as defined by economists. As Taylor and Vedder (2010: 6) note, “The ‘Depression of 1946’ may be one of the most widely predicted events that never happened in American history.”
A similar episode occurred in 2012 and 2013 when government spending cuts associated with the Budget Control Act (BCA) of 2011 and the sequester were implemented. It was widely predicted that if the sequester’s across-the-board cuts in federal spending were executed, the economy would be thrown back into those conditions seen in the Great Recession of 2007–09, or worse. Yet, as was the case in 1946, significant cuts occurred despite these dire warnings. Nominal government spending fell in both 2012 and 2013—the first time that government spending had fallen two years in a row since the 1950s. Once again the dire predictions did not come to pass. Monthly employment numbers grew at a faster rate after the spending cuts than they had prior to them, and GDP grew at around the same pace pre- and postcuts. The “sequester-induced contraction of 2013,” which was a major part of the ominous sounding “fiscal cliff” over which the country was supposedly going to topple, was—like the post-WWII government contraction—another of the most widely predicted events in U.S. history to never happen. This paper compares these two episodes and looks for policy lessons.

World War II Spending Cuts: Fear of the Depression’s Return

By the outbreak of war in Europe in late 1939, President Franklin Roosevelt’s New Deal economic programs had been in place for nearly seven years with only limited success at ending the Great Depression. While unemployment was lower than it was in 1933, many contemporaries viewed this reduction as being the product of government relief jobs rather than a bona fide, permanent recovery. Government employment via Depression-era agencies like the Works Progress Administration, it appeared to some, would have to remain part of the economic landscape indefinitely. In fact, Bateman and Taylor (2003) show that this fear caused long-term economic goals to continue to be a large part of the objectives of New Deal “alphabet agencies” even after the nation entered the Second World War.

Between 1942 and mid-1945, the United States was essentially a command economy and unemployment practically disappeared.¹

FISCAL CONTRACTION AND ECONOMIC EXPANSION

The Controlled Materials Plan, introduced in November 1942, was created and operated inside the War Production Board to harness the production capacity of the nation for military purposes. The Office of Price Administration rationed or restricted consumer durables like automobiles and office chairs with metal frames. Labor was also commandeered or otherwise directed by the federal government into military purposes. The Selective Service registered and drafted citizens into the military, while the Employment Service and the War Manpower Commission used incentives to mobilize and employ labor into jobs of highest military priority. At its peak, the war effort supported 45 percent of the nation’s civilian labor supply, while another 12 million citizens, representing around 18 percent of the total (military plus civilian) labor force, were employed directly by the military (U.S. Bureau of the Budget 1946). The unemployment rate fell below 2 percent as the United States went from a dramatic labor surplus in the 1930s to a labor shortage during the war.

In light of all this, it is easy to understand why policymakers so feared that a rapid transition from the command-oriented economy described above to a market-oriented one following the war would bring back high unemployment. If the war ended the Depression, what would the end of the war bring? As the war ended after the Japanese surrender in mid-August 1945, the National Resource Planning Board predicted that over the next year, unemployment would rise to between eight and nine million, representing 12 to 14 percent of the labor force. John Snyder, director of the Office of War Mobilization and Reconversion, submitted a report in which he forecast that eight million people would be unemployed by the spring of 1946 (U.S. Office of War Mobilization and Reconversion 1945: 5). The press followed suit as the September 1, 1945 issue of *Business Week* predicted that unemployment would peak “closer to 9,000,000 than 8,000,000.”² These predictions were relatively optimistic compared to some others. Leo Cherne of the Research Institute of America and Boris Shishkin, an economist for the American Federation of Labor, predicted 19 and 20 million unemployed, respectively, which would have translated to an unemployment rate around 35 percent (Ballard 1983: 17–18).

Even in the face of these dire warnings, within six weeks of the Japanese surrender, the Controlled Materials Plan was, with a few exceptions, ended so that resource allocation was once again left to the private sector. Furthermore, Ballard (1983: 135) notes that by the end of 1945, 80 percent of all war contracts had been settled. Despite the massive decrease in government production and the discharge of over 10 million men and women, who had been employed directly by the military either as soldiers or civilian workers, into the private sector, the postwar unemployment problem did not materialize. Table 1, which provides key labor force and employment data for 1939 to 1950, shows that as the government withdrew, the private sector grew. Vedder and Gallaway (1993: 171) refer to this as a “classic case of ‘reverse crowding out.’” The smooth transition of labor resources from government-directed to market-directed production was viewed as a miraculous event. Vedder and Gallaway (1993: 158) write, “We know of no other episode in American economic history that more clearly illustrates several neoclassical and Austrian economic insights than” the postwar transition.

<table>
<thead>
<tr>
<th>Year</th>
<th>Civilian Labor Force</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Unemployment Percentage</th>
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</thead>
<tbody>
<tr>
<td>1939</td>
<td>55,218</td>
<td>48,993</td>
<td>6,225</td>
<td>11.3%</td>
</tr>
<tr>
<td>1940</td>
<td>55,640</td>
<td>50,350</td>
<td>5,290</td>
<td>9.5%</td>
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<tr>
<td>1941</td>
<td>55,910</td>
<td>52,559</td>
<td>3,351</td>
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</tr>
<tr>
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<td>56,410</td>
<td>54,664</td>
<td>1,746</td>
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</tr>
<tr>
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<td>55,540</td>
<td>54,555</td>
<td>985</td>
<td>1.8%</td>
</tr>
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<td>54,630</td>
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<td>670</td>
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</tr>
<tr>
<td>1945</td>
<td>53,860</td>
<td>52,820</td>
<td>1,040</td>
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</tr>
<tr>
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<td>57,520</td>
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<td>59,682</td>
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<td>60,621</td>
<td>58,358</td>
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<td>1949</td>
<td>61,315</td>
<td>57,683</td>
<td>3,632</td>
<td>5.9%</td>
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<tr>
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<td>62,079</td>
<td>58,892</td>
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The Post–Great Recession Era and the Government Spending Sequester

In 2008, the federal government began to take extraordinary steps in an effort to combat the “Great Recession.” President George W. Bush signed the Keynesian-oriented, $152 billion Economic Stimulus Act of 2008, which sent checks to U.S. households in hopes that the country could spend its way out of the downturn. In 2009, President Barack Obama outdid the Bush stimulus by more than a factor of five with the American Recovery and Reinvestment Act—an $831 billion stimulus consisting of tax rebate checks, infrastructure spending, and smaller amounts of spending on health, education, and renewable energy, among other categories. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 brought another $916.8 billion in stimulus by prolonging the Bush tax cuts, cutting payroll taxes, and extending unemployment coverage. The Middle Class Tax Relief and Job Creation Act of 2012 extended the payroll tax cut provisions, which was said to create another $167.6 billion in stimulus. Of course, it could be argued that extending tax reductions already in place is not true stimulus so much as an avoidance of contractionary policy. All told, however, the major and minor stimulus legislation from 2008 to 2012 amounted to over $2 trillion in new federal spending and tax rates below what they would otherwise have been (Firey 2012).

In light of these actions, the federal budget deficit averaged nearly $1.3 trillion between 2009 and 2012, adding over $5 trillion to the national debt in just four years (U.S. Office of Management and Budget 2014a). Given this quick buildup, the government had to raise its authorized debt ceiling or face default. As it happens, the government actually hit this ceiling in May 2011, but the Treasury was able to employ some extraordinary measures to avoid an immediate crunch. The stated deadline at which the United States would default on its debt payments unless Congress raised the debt ceiling was August 2, 2011.

Republicans, who had won control of the House of Representatives in 2010, insisted that any increase in the debt ceiling be accompanied by spending cuts. Representative William Shuster declared, “We are in a spending-driven debt crisis. Washington is spending money it doesn’t have, and it’s leaving the American
people, our children and our grandchildren, with the tab.”\footnote{Rep. William Shuster (R-Pa.), \textit{Congressional Record} 157 (110), July 21, 2011.} After a long standoff, on August 2, the Budget Control Act of 2011 was passed. The BCA granted an immediate increase of the debt ceiling by $400 billion, and another $500 billion would be added to the debt ceiling in September unless it was explicitly disapproved by Congress. The president could further request the debt ceiling be raised another $1.2–$1.5 trillion in 2012. In exchange for the $900 billion increase in the debt ceiling, federal spending had to be cut by $917 billion over the next decade, and the first installment of these cuts had to begin in the 2012 fiscal year. Furthermore, a new committee, the Joint Select Committee on Deficit Reduction, better known as the “supercommittee,” would be created with the task of identifying and proposing $1.5 trillion in deficit reduction measures by November 23, 2011. The committee’s recommendation would go to Congress, without any amendments, for an up-or-down vote no later than December 23, 2011.

Importantly, Congress was strongly incentivized to vote in favor of the committee’s proposed deficit reduction measures because a “trigger” mechanism was included in the BCA, which stated that if the $1.5 trillion in deficit reduction was not passed by December 23, 2011, $1.2 trillion in automatic, largely across-the-board spending cuts would go into effect, in exchange for an additional $1.2 trillion increase in the debt ceiling. This so-called “sequestration” would apply to any nonexempt account of the federal government and would be split evenly between defense and nondefense discretionary spending. The legislation went on to list the various caps in new spending that would be allowed for different government accounts. If caps were exceeded, sequestration would occur to bring spending down to the cap. The trigger was not set to go off until January 2013—conveniently after the fall 2012 elections—at which point $110 billion of automatic spending cuts would be implemented.

The supercommittee, which consisted of six Democrats and six Republicans and was co-chaired by Republican Jeb Hensarling and Democrat Patty Murray, announced on November 21, 2011, that “After months of hard work and intense deliberations, we have come to the conclusion today that it will not be possible to make any bipartisan agreement available to the public before the committee’s
Fiscal Contraction and Economic Expansion

deadline” (Joint Select Committee on Deficit Reduction 2011). With no recommendation for Congress to vote upon, the automatic cuts of the sequester would be enacted starting January 2, 2013.

The sequester’s start date happened to coincide with several other “contractionary” fiscal policy measures. Among them was the scheduled expiration of the marginal tax rate cuts put in place in 2001 and 2003 under Bush. While these were initially to expire in 2010, they were temporarily extended by Obama’s aforementioned 2010 stimulus. Additionally, a 2 percent reduction in the payroll (Social Security) tax was set to expire on January 1, 2013, as were extended unemployment benefits. The Alternative Minimum Tax (AMT) was also scheduled to revert back to its 2000 tax year levels. The simultaneous timing of all these tax increases and spending cuts became known as the “fiscal cliff”—this ominous name coming from Ben Bernanke, then chairman of the Federal Reserve (Kurtz 2012).

In early June 2012, Representative Gerry Connolly, a Democrat, shamed the Republicans for not working with his party, saying that failure to act would bring “economic calamity [and] will send America back into a recession.”4 The lack of a plan to tackle the spending cuts gained prominence as the 2012 presidential election neared. In response to President Obama’s declaration that he would veto any measures that would avoid sequestration and the fiscal cliff that were not to his liking, Republican presidential nominee Mitt Romney said Obama’s “approach would let our economy sink into recession for the sake of pursuing job-killing tax increases” (Politi 2012).

Obama won re-election in November 2012, at which point less than two months remained before the nation was due to plunge over the fiscal cliff. Bernanke urged Congress to make progress in solving the looming crises, saying, “It will be critical that fiscal policy makers come together soon to achieve longer-term fiscal sustainability, without adopting policies that could derail the ongoing recovery” (Bernanke 2012). The parameters of the debate were simple. Republicans wanted deficit reduction through spending cuts while Obama and the Democrats wanted to achieve deficit reduction by raising taxes on the wealthiest 2 percent of taxpayers. When Obama delivered his opening offer to the Republicans in the negotiations over avoiding the fiscal cliff—an offer that included $1.6 trillion of tax increases on the rich and very little in the way of

spending cuts—Republican Speaker of the House John Boehner said, “Listen, this is not a game. Jobs are on the line. The American economy is on the line” (Burlij and Polantz 2012). Republican Congressman Joe Wilson insisted that Democrats and Republicans had to negotiate a settlement to avoid the sequester: “This important issue must be addressed [before it] devastates national security and destroys 700,000 jobs.” Democratic Senator Bill Nelson of Florida insisted that all that needed to be done was to “recognize that the President won [the election], produce revenue with the upper 2 percent paying a little more, and eliminate sequestration.”

The Senate and the House passed the American Taxpayer Relief Act (ATRA) of 2012 on January 1, 2013, and President Obama signed the bill into law the next day, thus averting at least some of the fiscal cliff. The two primary issues addressed in the legislation were the expiration of the Bush tax cuts and the coming sequestration. The ATRA made the marginal income tax cuts of 2001 and 2003 permanent for all but the top 2 percent of taxpayers, who saw their marginal rate rise from 35 to 39.6 percent. Second, ATRA delayed the implementation of the sequester until March 1, 2013, in hopes that an agreement might be reached that could replace the blunt, across-the-board approach of the sequester with a program of more targeted cuts. Congressional Budget Office (CBO) Director Rudolph Penner noted that ATRA had “reduced the probability of recession quite a bit,” but that Congress and the White House “gave us a New Year’s Eve present of another cliff in two months” (Sahadi 2013).

Predictions of Doom if Sequester Deal Not Reached

In the first few weeks of 2013, estimates of the impact of the sequester varied, though most of them were highly negative in outlook. Third Way published projections that claimed that by the end of 2014, “the U.S. economy will provide 1.9 million fewer jobs . . . the pain will reach all states and all sectors, most deeply affecting public investments” (Brown 2013). CBO said that assuming the sequester occurs, “economic activity will expand slowly this year [2013], with real GDP growing by just 1.4 percent.” The fourth quarter unemployment rate in 2013 was predicted by the CBO to rise to 8 percent, from its level of 7.5 percent at the time (Congressional Budget Office

On February 13, 2013, the day the CBO report was released, Director Douglas Elmendorf testified before Congress that real GDP growth “would increase 1.5 percentage points faster were it not for fiscal tightening” (Elmendorf 2013). Janet Yellen, then vice-chairwoman of the Federal Reserve, also expressed displeasure with the fiscal tightening: “Discretionary fiscal policy hasn’t been much of a tailwind during this recovery [but instead] has actually acted to restrain the recovery. . . . I expect that discretionary fiscal policy will continue to be a headwind for the recovery for some time” (Yellen 2013). Paul Krugman highlighted studies predicting that the economy would lose 700,000 jobs in 2013 due to the sequester, prompting him to argue that “we should be spending more, not less, until we’re close to full employment; the sequester is exactly what the doctor didn’t order” (Krugman 2013).

Still, not all commentary on the coming sequester was grave. Reason magazine editor-in-chief Matt Welch wrote that “taxpayers shouldn’t be fearing the forced spending cuts, they should be fearing that the cuts don’t go nearly far enough” (Welch 2013). The Wall Street Journal (2013) published an opinion piece claiming: “The sequester will help the economy by leaving more capital for private investment. . . . From 1992–2000 Democrat Bill Clinton and (after 1994) a Republican Congress oversaw budgets that cut federal outlays to 18.2 percent from 22.1 percent of GDP. These were years of rapid growth in production and incomes.”

In the political sphere, the rhetoric surrounding the sequester drowned out almost every other issue of the day. President Obama characterized the cuts as being particularly harmful to the middle class, and in one of his weekly YouTube addresses said, “It’s important to understand that, while not everyone will feel the pain of these cuts right away, the pain will be real. . . . Economists estimate they could eventually cost us more than 750,000 jobs and slow our economy by over one-half of one percent” (White House 2013). Those dire claims were echoed by Congress as well. Representative Dan Kildee lambasted Republicans, saying that they were “willing to pink-slip 750,000 American workers just to protect billions of dollars in handouts for . . . five big oil companies.” One week later, Democratic Senator Barbara Boxer wondered how we arrived at “a place where we are having

mindless, across-the-board cuts in spending with absolutely no thought.”8 Many Republicans also expressed disgust with the nontargeted nature of the sequester. Speaker John Boehner called the sequester “an ugly and dangerous way” to achieve the necessary spending cuts (Boehner 2013).

This time there was no 11th hour agreement. On March 1, 2013, $85 billion of federal spending was sequestered. The Office of Management and Budget (OMB) estimated that sequestration would require a 7.8 percent cut in nonexempt defense spending; a 5 percent cut in nonexempt, nondefense funding; and a 2 percent cut in Medicare. Furthermore, because these cuts had to be achieved in just seven months (prior to the close of the fiscal year on September 30), the effective reduction was approximately 13 percent for defense and 9 percent for nondefense programs. In his cover letter to the speaker of the house announcing sequestration, OMB Deputy Director Jeffrey Zients chastised Republicans for creating such a doomsday device and not having the foresight to avoid its activation, writing that “sequestration is a blunt and indiscriminant instrument. It was never intended to be implemented and does not represent a responsible way for our Nation to achieve deficit reduction” (U.S. Office of Management and Budget 2014b).

Postsequester Data

Were the dire predictions of economic Armageddon correct? As noted earlier, federal spending fell in nominal terms in both 2012 and 2013—the first time since the end of the Korean War that spending fell two years in a row. Spending did rise a bit in fiscal year 2014. For the purposes of this study, we will focus on the movement of key economic variables in the 18 months either side of the sequester’s implementation.

In October 2014, the unemployment rate was 5.9 percent compared to a level of 7.5 percent in April 2013 when the sequester was implemented. The decline of 1.6 percentage points in 18 months is actually larger than the decline during the prior 18 months—November 2011 to April 2013—when it fell from 8.6 to 7.5 percent. In comparison with the CBO’s projections of a rate of 8 percent at the end of 2013, unemployment actually ended 2013 at 6.7 percent.

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8Sen. Barbara Boxer (D-Calif.), Congressional Record 159 (30), March 4, 2013.
Figure 1 shows the unemployment rate between 2008 and 2014, highlighting the dates of the passage of the Budget Control Act and the implementation of the sequester.

Examinations of quarterly GDP growth also show no signs of a sequester-induced slowdown. The economy grew at only 0.1 percent in the fourth quarter of 2012—the final quarter before the sequester took effect. Growth was 1.1 percent in the first quarter of 2013—the sequester took effect two-thirds of the way through this quarter. Growth then accelerated in the immediate postsequester quarters to 2.5, 4.1, and 2.6 percent—and real GDP growth for 2013 was 1.9 percent, about half a percentage point higher than what the CBO had predicted it would be in light of the sequester.

GDP tumbled 2.1 percent in the first quarter of 2014, despite the fact that labor force participation was up from the previous quarter, while the average monthly unemployment rate was lower. Clearly the decline was not caused by fiscal contraction, as federal spending actually rose 0.6 percent during the quarter after falling by an average of
6.1 percent during the prior four quarters. Many have blamed that low GDP growth number on a very harsh winter. The drop could also have been caused in part by the Federal Reserve announcement in December 2013 that it was going to reduce the size of its asset purchases, and the subsequent 1,000 point drop in the Dow Jones Industrial Average over the following month. Still, the second and third quarters of 2014 experienced impressive growth rates of 4.6 and 3.5 percent, respectively, so that the notion that the first quarter contraction was caused by the sequester does not seem viable.

Industrial production, shown in Figure 2, also continued to climb unabated by the sequester. In the 18 months prior to the sequester, from September 2011 until March 2013, the industrial production index grew by 5.5 percent; in the following 18 months, from the sequester until September 2014, it grew by 5.6 percent.

In the months leading up to the implementation of the sequester, it was suggested that hundreds of thousands, or even millions of

FIGURE 2
INDUSTRIAL PRODUCTION INDEX, INDEX 2007=100, MONTHLY, SEASONALLY ADJUSTED

Note: BCA = Budget Control Act.
Source: Research.stlouisfed.org.
government workers would lose their livelihood. In fact, according to the Government Accountability Office, only one government employee, who was employed by the Department of Justice, lost his job as a result of the sequester (U.S. Government Accountability Office 2014). There were, of course, furloughs of around 770,000 employees from various government agencies. But while many predicted that these could go on for weeks, none of the furloughs actually lasted more than six days.

By mid-2013, the media began to report how wrong politicians’ predictions just a few months earlier had been. Washington Post reporters Fahrenthold and Rein (2013) listed 48 dire predictions about the sequester’s impact, such as long waits in airport security and border crossings and 600,000 low-income Americans being denied federal food aid. Less than a quarter of these predictions came to pass. In most cases, agencies found ways to make things work with less by moving resources around. For example, the authors note that the U.S. Geological Survey said that the sequester would require them to shut off 350 gauges used to predict impending floods. In fact, only 90 were shut off as the agency cut other budget items like conference expenses; it sent only 350 of its scientists to conferences in 2013 as opposed to the 469 it had sent the year prior. Similarly, Fahrenthold and Rein note that the U.S. Park Police said all of its officers would have to be furloughed for 12 days should the sequester occur. In fact, the National Park Service found $4 million in savings in its budget, so that only three furlough days were required. Fahrenthold and Rein’s article can be summed up by a quote from their interview with Robert Bixby of the Concord Coalition: “The dog barked. But it didn’t bite.”

President Obama’s 2014 budget contained enough cuts that federal spending would fall under the caps on both defense and non-defense discretionary spending. Thus the Office of Management and Budget determined that sequestration was not needed for the 2014 fiscal year (Clark 2014). Furthermore, projections regarding the nation’s economy and budget in coming years are generally positive. In a June 2014 press conference, Federal Reserve Chairwoman Janet Yellen displayed projections showing 2015 real GDP growth above 3 percent, and unemployment falling below 6 percent by the end of 2015—despite budget cuts (Yellen 2014). In fact, unemployment fell below 6 percent in October 2014, and stood at 5.1 percent, right around the natural rate of unemployment, as this issue went to press.
Likewise, the CBO’s January 2015 projections for GDP growth were generally optimistic, suggesting that the economy would grow at a “solid pace in 2015 and for the next few years,” while the gap between actual and potential output would be closed by 2017 (Congressional Budget Office 2015).

Federal Spending and the Economy

This article has documented two cases in which it was widely predicted that a contraction of government spending would bring economic ruin. In neither case did this prediction come to pass. It has been argued that one of the reasons a major downturn was avoided in the post-WWII era was because of pent-up demand—after several years of rationing of private sector goods during the war, people were ready, and had the means, to spend. To the extent that this is true, the post-sequester period offers a more difficult test of the market’s ability to flourish in an era of government contraction. On the other hand, it could be argued that the Federal Reserve’s aggressive monetary policy in the years after the Great Recession created tailwinds that helped the economy avoid a sequester-induced downturn. But the world rarely provides policy experiments in a perfect vacuum. In any case, numerous econometric studies, which attempt to hold other factors constant, have found that fiscal policy shocks have little or no effect on output and employment, and sometimes even have a perverse effect (see Landau 1983, Conte and Darrat 1988, Grier and Tullock 1989, Rao 1989, Barro 1991, Christopoulos and Tsionas 2002, Afonso and Furceri 2010, and Wang and Abrams 2011).

One straightforward explanation of why steep declines in government spending in both 1946 and 2013 did not result in economic disaster is that that excessive government spending—as may be said to have occurred in the lead-ups to both these episodes—does not stimulate the economy, but rather crowds out private sector spending. Between 1942 and 1945, government deficits were around 25 percent of GDP and total federal outlays were around 42 percent of GDP. Between 2009 and 2012, deficits were around 10 percent of GDP and total federal outlays were over 24 percent of GDP—both of these measures were at their highest levels since WWII.

Some government spending is certainly necessary in order for the economy to reach its full potential, and during times of war, one would expect government to play a larger role in the economy.
Vedder and Gallaway (1998: 2) note that “In a world without government, there is no rule of law, and no protection of property rights. . . . There is little incentive to save or invest because the threat of expropriation is real and constant.” But they claim that government is subject to diminishing, and at some point, negative returns. Vedder and Gallaway’s (1998) empirical analysis estimates that the optimal level of federal spending in the United States—in terms of its impact on aggregate output—is around 17.5 percent of GDP. The nation approached this value in the years around the turn of the 21st century, when federal spending was just above 18 percent of GDP. When spending as a percentage of GDP exceeds this level—as was the case around 1945 and again in 2012—cuts in spending do not hurt, but rather help the economy.

A second, and related, potential explanation for the economy’s resilience in the face of dramatic cuts in government spending after both WWII and the sequester of 2013 comes from the theory of “Expansionary Fiscal Contraction.” Giavazzi and Pagano (1990) were among the first to formally argue that, under certain conditions, government spending cuts could stimulate the economy. Sometimes called the “German View,” this theory relies heavily on expectations and the effects that deficits can have on them. In particular, if agents become concerned that large government deficits could lead to higher interest rates or national default, they may cut back on current period consumption and domestic investment. If cuts in government spending boost confidence in economic actors, this could act as a stimulus. Alesina and Ardagna (1998) and Ardagna (2004) provide empirical case study evidence that fiscal contraction can indeed be expansionary.

Figure 3 shows movements in the University of Michigan’s Index of Consumer Sentiment in the months around the sequester. At the passage of the Budget Control Act of 2011, consumer sentiment was at the lowest it had been since November 2008—this was very likely related to a fear of government default, which politicians kept highlighting. Consumer sentiment rose quickly after passage of the BCA and it has continued a slow, albeit uneven, rise since then. While sentiment has risen, the budget

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9The deficit is calculated as a percentage of GDP using annual deficit data and quarterly GDP data.
deficit as a percentage of GDP has declined sharply. Clearly, many other factors affect sentiment besides the deficit, but Figure 3 offers some evidence consistent with the theory of expansionary fiscal contraction.

Conclusion

In several different writings, Richard Vedder and his various coauthors have highlighted the full employment post–World War II transition as strong evidence that markets can respond well to fiscal contraction—“No other episode more clearly supports the notion that the best economic stimulus is for government to get out of the way” (Taylor and Vedder 2010: 6). Still, when those government cuts were taking place, Keynesians predicted an economic bloodbath. While most mainstream predictions were for unemployment to jump to 14 percent in 1946 should the government dramatically cut spending and hand over resources to the private sector, some pundits had this measure rising to around
30 percent. In fact, despite government spending falling from around 42 percent of GDP in 1945 to under 25 percent in 1946 and under 15 percent in 1947, unemployment remained below 5 percent throughout the period.

This article has explored parallels between the post–World War II fiscal contraction and the fiscal contraction brought about by the Budget Control Act of 2011 and one of its creations, the sequester, which was implemented in March 2013. Like 1945, predictions by politicians, government forecasters, and the media were for a dramatically negative economic effect. The sequester was to cause GDP to grow 1.5 percent slower than would otherwise be the case, unemployment would rise to over 8 percent, and employment would fall by 1.9 million. Despite these warnings, nominal federal spending fell in 2012 and 2013—the first time the United States has seen two consecutive years of declining government spending in nearly six decades. And yet it turned out that GDP grew faster and the unemployment rate fell more quickly in the 18 months after the sequester went into effect than it did in the 18 months that preceded it. Once again, Keynesian predictions of Armageddon when government spending falls back toward its optimal level were shown to be wrong. The sequester episode provides further support for Vedder’s view that cuts in government spending toward their optimal level—around 17.5 percent of GDP—do not harm, but actually help, the economy.

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_______ (2014b) “Sequestration Reports to the President.” Available at www.whitehouse.gov/omb/legislative_reports/sequestration.


Young and Out of Work:  
An Analysis of Teenage Summer Employment, 1972–2012  
J. Wilson Mixon Jr. and E. Frank Stephenson

For many teenagers, a summer job was a rite of passage. Beyond the earnings gained from summer employment, evidence suggests that summer work may have additional benefits, such as reducing participation in criminal activity (Heller 2014); reducing behavior such as drug or alcohol use, fighting, and damaging others’ property (Sum, Trubskyy, and McHugh 2013); and improving subsequent academic achievement (Leos-Urbel 2014). Moreover, positive relationships found between youth employment and future labor market success (Ruhm 1995) and negative relationships reported between youth unemployment and earnings up to 10 years later (Mroz and Savage 2006), though not focused specifically on summer employment, suggest that teenage labor market outcomes affect the future.

Over the past four decades, however, the percentage of teens with summer jobs has fallen. Figure 1 plots the July employment-population ratio for white male, black male, white female, and black female 16 to 19-year-olds over the period 1972–2012. We use employment in July as the measure of summer jobs because school-year timing varies. In many areas, school years run from September through June, while in others the school year runs from August through May. Hence, July is the only month that should not have
substantial overlap with school calendars. These data from the Bureau of Labor Statistics (BLS) include all years for which the BLS separately reports all four demographic subgroups. We consider the four groups separately rather than the aggregate teen employment-population ratio to allow for different behavior across demographic segments of the population. For example, Vedder and Gallaway (1993) document the divergent behavior of white and nonwhite unemployment from 1940 to 1990.

For both males and females, the employment-population ratio of whites is about 20 percentage points greater than for blacks. Both black males and white males exhibit downward trends in employment of approximately 0.6 to 0.8 percentage points per year. The employment-population rates for females tend to increase gradually until about 2000 before receding during the last decade. The net result is converging male and female employment-population ratios (conditional on race), though a large gap persists between blacks and
whites. Not surprisingly, temporary dips in the employment rates following recessions in the early 1980s and early 1990s suggest teen employment is sensitive to cyclical macroeconomic conditions. However, any cyclical component seems overwhelmed by the more or less continuous decline in all series since 2000; a decrease following the recession of 2001 might have been expected but the decline continued for a decade until a slight uptick in 2011–12.

The downward trend in teen summer employment has provoked news headlines such as “Teen Job-Seekers Face Summer Bummer” (Robinson 2008) and “Toughest Summer Job This Year Is Finding One” (Goodman 2008), but, to our knowledge, the trend has not yet received scholarly attention. Hence, we examine reasons for the decline in teenagers’ summer employment between 1972 and 2012. Vedder and Galloway (1993) argue that government labor policies often harm their intended beneficiaries, so we pay particular attention to the minimum wage as a possible contributor to the decline in youth summer employment.

Empirical Framework

Youth employment has been most extensively studied in the context of the minimum wage. Our empirical approach, based on previous research, uses a reduced-form model similar to that used in the minimum wage study of Neumark and Wascher (2004):¹

\[ EPR_t = \beta_0 + \beta_1 \text{RealMinWage}_t + \beta_2 \text{Manufacturing Employment}_t + \beta_3 \text{UnemploymentRate}_t + \beta_4 \text{OlderWorkers}_t + \beta_5 \text{CollegeEnrollment}_t + \beta_6 \text{EPR}_{t-1} + \epsilon_t, \]

where EPR is the U.S. employment-population ratio in July for each of the four demographic groups (white males, black males, white females, and black females). Separate consideration of the four demographic groups rather than aggregate teen employment allows not only for the different behavior over time for the various groups,

¹Although not specifically focused on summer jobs, the relationship between the minimum wage and teen employment has been extensively researched. Studies such as Adie (1973); Brown, Gilroy, and Kohen (1982); Partridge and Partridge (1998); and Neumark and Wascher (2004) find that higher minimum wage levels are associated with less teenage employment or more teenage unemployment. Meer and West (2013) find that the minimum wage reduces job growth, particularly for younger workers. One channel for the minimum wage’s effect on teenage employment is its effect on low-wage industries (Uri and Mixon 1978).
but also for the possibility that the right-hand-side variables differently affect different population subsets. Descriptive statistics for EPR and for all regressors are reported in Table 1.

RealMinWage is the real value of the minimum wage (measured in 2012 prices). Since many states have adopted minimum wages above the federal minimum wage, our minimum wage variable is constructed as the population-weighted average of the minimum wage in effect in each state on July 1 of each year. We consider the minimum wage in effect in state $s$ on July 1 of year $t$ to be the maximum of the federal minimum wage in effect on July 1 of year $t$ and state $s$'s minimum wage on July 1 of year $t$. Since teens typically have little experience and few skills, the minimum wage might price some teen workers out of the labor market. Ceteris paribus, we hypothesize that increases in the minimum wage decrease the quantity of teen labor demanded thereby reducing the employment-population ratio. The inflation-adjusted minimum wage has declined during the

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Minimum Wage</td>
<td>$7.53</td>
<td>$0.90</td>
<td>$6.30</td>
<td>$9.33</td>
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<tr>
<td>Black Female 16–19</td>
<td>30.01</td>
<td>4.72</td>
<td>15.6</td>
<td>36.7</td>
</tr>
<tr>
<td>White Female 16–19</td>
<td>52.97</td>
<td>6.79</td>
<td>35.4</td>
<td>61.9</td>
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<tr>
<td>Black Male 16–19</td>
<td>34.13</td>
<td>8.35</td>
<td>16.8</td>
<td>48.4</td>
</tr>
<tr>
<td>White Male 16–19</td>
<td>58.25</td>
<td>10.07</td>
<td>34.1</td>
<td>70.0</td>
</tr>
<tr>
<td>Black Female Over 65</td>
<td>9.41</td>
<td>1.84</td>
<td>5.6</td>
<td>14.2</td>
</tr>
<tr>
<td>White Female Over 65</td>
<td>8.81</td>
<td>1.88</td>
<td>6.9</td>
<td>13.0</td>
</tr>
<tr>
<td>Black Male Over 65</td>
<td>15.19</td>
<td>3.41</td>
<td>9.9</td>
<td>23.9</td>
</tr>
<tr>
<td>White Male Over 65</td>
<td>18.27</td>
<td>2.29</td>
<td>15.1</td>
<td>24.0</td>
</tr>
<tr>
<td>Black Female College</td>
<td>27.89</td>
<td>7.85</td>
<td>13.5</td>
<td>41.9</td>
</tr>
<tr>
<td>White Female College</td>
<td>35.56</td>
<td>8.58</td>
<td>21.8</td>
<td>47.7</td>
</tr>
<tr>
<td>Black Male College</td>
<td>24.23</td>
<td>4.97</td>
<td>17.5</td>
<td>35.2</td>
</tr>
<tr>
<td>White Male College</td>
<td>34.86</td>
<td>4.58</td>
<td>27.1</td>
<td>42.4</td>
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<tr>
<td>White Male 25–54 UR</td>
<td>4.13</td>
<td>1.52</td>
<td>1.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15.82</td>
<td>4.70</td>
<td>8.9</td>
<td>24.2</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teen Birthrate</td>
<td>49.67</td>
<td>8.27</td>
<td>29.4</td>
<td>61.8</td>
</tr>
</tbody>
</table>

ManufacturingEmployment is the share of workers employed in manufacturing and allows for the decline in manufacturing jobs over time to have differentially affected different groups of teens. According to the BLS, manufacturing employment fell from 17.7 million people in 1972 to 11.9 million people in 2012, though, of course, many of these jobs were not held by teens. Since manufacturing jobs were largely held by males, declines in manufacturing employment may explain the decline of summer jobs for male teens relative to female teens.\(^2\)

UnemploymentRate, our control for the business cycle, is the white male age 25–54 unemployment rate. We select this group to avoid simultaneity with the dependent variable. Other things equal, cyclical macroeconomic downturns should decrease teen employment.\(^3\)

OlderWorkers is the employment-population ratio for workers over age 65. Increased competition from adult workers might reduce teen employment; this concern is particularly germane because the employment-population ratio of workers over age 65 has increased from 11.4 percent in 1997 to 15.4 percent in 2007. Several factors might increase older workers’ labor supply. Schirle (2008) found

\(^2\)In 1970, females were 28 percent of manufacturing workers (Statistical Abstract of the United States 1980: Table 674). The industries having smaller proportions of female employees (e.g., mining and construction) constituted very small percentages of the overall labor force and are therefore poor candidates for explaining the decline in teenage males’ summer employment. Parker (1992) examines sectoral change and finds a larger effect for adult males than for adult females.

\(^3\)Our expectation of a negative relationship between UnemploymentRate and the employment-population ratio is based on a decrease in the demand for teen labor. Increases in the overall unemployment rate could also increase the supply of teen labor, if households facing unemployment compensate by having secondary earners enter the labor force.
that one-fourth of the increase in older men’s labor force participation is related to increased labor force participation by their wives. Vere (2011) reported that 1977 legislation reducing Social Security benefits caused a large increase in labor supply among older workers in the 1990s and early 2000s. Engelhardt and Kumar (2009) found that the repeal of the Social Security earnings test increased the labor force participation of older workers. When older workers obtain jobs typically held by teens, older workers crowd out younger workers thereby creating a negative relationship between OlderWorkers and the teen employment-population ratio.

The likelihood of going to college after graduating from high school has increased substantially over our study period, so the model also includes the college enrollment rate (CollegeEnrollment). The effect of increased college enrollment on teens’ desire for summer employment is theoretically ambiguous. On one hand, college enrollment may increase students’ desire for summer earnings and lead to
more teens working summer jobs. On the other hand, some college students may enroll in summer school instead of obtaining a summer job thereby leading to a negative relationship between college enrollment and teen employment.

EPR\(_{-1}\) is the lagged employment-population ratio for each demographic group. As noted by Neumark and Wascher (2004), including the lagged dependent variable can control for sluggishness in the response of employment to changes in labor demand and help account for omitted factors not already captured by the model's other explanatory variables.

For the black female and white female equations, we also include the teen birthrate as an explanatory variable. The presence of a young child could affect females' labor supply decisions, although the direction is not clear ex ante. On one hand, pregnancy, birth, and infant care might cause mothers to forgo working; on the other hand, the financial demands of a young child might cause teen mothers to seek jobs.

Results

Since the errors across demographic groups are likely correlated, the models for the four demographic groups are estimated simultaneously as a "seemingly unrelated regression." Results are reported in Table 2. The Breusch-Pagan test for independence of the equations rejects the null hypothesis of independence with a p-value of 0.0001. To further assess the appropriateness of SUR (seemingly unrelated regressions) instead of OLS (ordinary least squares), we also tested for equality of coefficients across the four specifications. The null hypothesis of equal coefficients is rejected (p-values less than 0.05) for manufacturing employment, the prime-age male unemployment rate, and the employment-population ratio of workers over age 65.

The estimated coefficient on the real minimum wage is negative for all four demographic groups and is significantly different from zero for all groups except white females. A $1.00 increase in the real value of the minimum wage is associated with a 1.8 percentage point drop in both the black male and black female employment-population ratios. These estimated minimum wage coefficients for black males and black females are roughly two times larger than for their white counterparts. The disparity in elasticities is even larger because of the lower employment-population ratios for blacks.
Using the mean values of the real minimum wage and the employment-population ratios, the implied elasticity of employment with respect to the minimum wage is \( \frac{0.41}{1 - 0.41} \) for black males, \( \frac{0.45}{1 - 0.45} \) for black females, \( \frac{0.14}{1 - 0.14} \) for white males, and \( \frac{0.11}{1 - 0.11} \) for white females (though, again, the point estimate for white females is not statistically different from zero).

Our results are therefore similar to those in the existing literature (Brown, Gilroy, and Kohen 1982).

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**TABLE 2**

**Regression Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>White Male</th>
<th>Black Male</th>
<th>White Female</th>
<th>Black Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Minimum Wage</td>
<td>-1.120**</td>
<td>-1.843*</td>
<td>-0.777</td>
<td>-1.785**</td>
</tr>
<tr>
<td>(0.469)</td>
<td>(1.068)</td>
<td>(0.613)</td>
<td>(0.748)</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Employment</td>
<td>1.254***</td>
<td>0.713*</td>
<td>-0.409</td>
<td>0.080</td>
</tr>
<tr>
<td>(0.177)</td>
<td>(0.414)</td>
<td>(0.565)</td>
<td>(0.325)</td>
<td></td>
</tr>
<tr>
<td>Prime-age Male Unemp. Rate</td>
<td>-1.393***</td>
<td>-0.789**</td>
<td>-0.903***</td>
<td>-1.257***</td>
</tr>
<tr>
<td>(0.173)</td>
<td>(0.397)</td>
<td>(0.234)</td>
<td>(0.251)</td>
<td></td>
</tr>
<tr>
<td>Older Workers Emp. Rate</td>
<td>-0.784***</td>
<td>0.176</td>
<td>-1.991***</td>
<td>-0.297</td>
</tr>
<tr>
<td>(0.174)</td>
<td>(0.191)</td>
<td>(0.405)</td>
<td>(0.199)</td>
<td></td>
</tr>
<tr>
<td>College Enrollment Rate</td>
<td>-0.157</td>
<td>-0.371</td>
<td>-0.183</td>
<td>-0.146</td>
</tr>
<tr>
<td>(0.116)</td>
<td>(0.232)</td>
<td>(0.214)</td>
<td>(0.142)</td>
<td></td>
</tr>
<tr>
<td>Teen Birthrate</td>
<td>-0.011</td>
<td>0.017</td>
<td>(0.080)</td>
<td>(0.078)</td>
</tr>
<tr>
<td>Lagged Dependent Variable</td>
<td>0.309***</td>
<td>0.366***</td>
<td>0.433***</td>
<td>0.375***</td>
</tr>
<tr>
<td>(0.067)</td>
<td>(0.121)</td>
<td>(0.092)</td>
<td>(0.099)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>54.199***</td>
<td>33.516***</td>
<td>69.494***</td>
<td>43.823***</td>
</tr>
<tr>
<td>(7.178)</td>
<td>(7.872)</td>
<td>(16.777)</td>
<td>(8.229)</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.98</td>
<td>0.88</td>
<td>0.96</td>
<td>0.83</td>
</tr>
</tbody>
</table>

**Notes:** Parentheses contain standard errors; *, **, *** denote significance at the 10 percent, 5 percent, and 1 percent level, respectively. There are 40 observations.

Using the mean values of the real minimum wage and the employment-population ratios, the implied elasticity of employment with respect to the minimum wage is \(-0.41\) for black males, \(-0.45\) for black females, \(-0.14\) for white males, and \(-0.11\) for white females (though, again, the point estimate for white females is not statistically different from zero). Our results are therefore similar to those in the existing literature (Brown, Gilroy, and Kohen 1982).

These elasticities, derived from the estimated values of \( \beta_1 \), should be thought of as short-run elasticities because the model includes a lagged dependent variable. The full impact of a minimum wage change would be given by \( \frac{\beta_1}{1 - \beta_0} \) and yields elasticity estimates of approximately \(-0.2\) for both white males and white females, \(-0.64\) for black males, and \(-0.72\) for black females.
As for manufacturing employment, the large and statistically significant results in the white and black male regressions suggest that structural changes in the economy explain the convergence in male and female summer employment for teens (conditional on race). The estimated coefficients from the black and white male equations indicate that each percentage point decrease in manufacturing as a share of overall employment is associated with a 1.25 percentage point decline in the white male teen employment-population ratio and a 0.70 percentage point decline in the black male teen employment-population ratio.

Turning to the unemployment rate, the estimated coefficient is statistically significant for each demographic group; however, the magnitude of the relationship varies somewhat across groups. The impact is larger for white males and black females than for white females and black males. The estimated coefficients on OlderWorkers imply a significant negative relationship between white teens’ employment and the employment of people over age 65, with the effect for white females being more than twice as large as the coefficient for white males. The coefficients for black males and black females are both small and not statistically different from zero.

The estimated coefficient on college enrollment is negative for all demographic groups, but the estimated effects are not statistically significant and are small for all groups except black males. Finally, the teen birthrate is not significantly related to either the black or white female teen employment-population ratio.

Conclusion

Vedder and Gallaway (1993: 294) concluded that inexperienced youths were among “the biggest losers from state intervention” in labor markets. Our results suggest that same conclusion may be reached about teen summer jobs over the past four decades. Even after controlling for the adverse effects on teen summer employment of increased labor force participation by senior workers, cyclical macroeconomic factors, and, for male teens, the decline in manufacturing employment, increases in the real value of the minimum wage are found to have detrimental effects on teen employment, particularly for black teens.
References


In his study of right-to-work (RTW) laws, Richard Vedder (2010) outlined the classical-liberal argument regarding workplace liberty and offered evidence of the effects of RTW legislation on employment and output in individual states. He found that RTW laws have a positive impact on both jobs and output as firms and workers move to states with greater economic freedom.

This article extends Vedder’s work by examining the impact of RTW laws on productivity and population growth. We begin with a review of the literature on both issues. Second, we reprise the exposition of labor demand theory offered by Hicks and LaFaive (2013), directly tying their work to estimates of total factor productivity (TFP), the Solow residual, and labor productivity across RTW and non-RTW states. Third, we re-evaluate earlier estimates of the effect of RTW laws on population growth offered by Hicks (2012) and Hicks and LaFaive (2013). In doing so, we incorporate an identification
strategy introduced by Hicks (2012) designed to adjust for population growth unrelated to RTW legislation.

The Impact of Right-to-Work Legislation: A Review of the Literature

The National Labor Relations Act of 1935 (the Wagner Act) did not permit states to restrict union contracts from mandating universal union membership within a union-represented establishment. In 1947, the Taft-Hartley Act allowed states to opt out of this requirement and allowed employees to avoid union membership and payment of union dues. The affirming vote of states to permit this union opt-out has become known as RTW legislation.

Some state legislatures actually voted for RTW laws prior to passage of the Taft-Hartley Act. The states that first passed RTW laws were heavily concentrated in the South, Southwest, and Great Plains. Those regions were not heavily industrialized at the time and did not possess large transportation sectors. Furthermore, there was considerable cultural opposition in the South toward the labor movement (Black and Black 1989). Since the Taft-Hartley Act, 25 states have passed RTW legislation, with Indiana doing so twice. The two most recent adopters are in the heavily unionized manufacturing states of Indiana and Michigan.

A large body of analysis has been performed regarding the impact of RTW legislation. The role of RTW legislation on unionization levels and rates has a long empirical history (Dickens and Leonard 1985, Freeman 1985, Farber 1987, Lazear 1988, Reder 1988, Jarley and Fiorito 1990, Moore 1998) and generally concludes that RTW laws reduce private-sector union participation, although some later works (e.g., Koeller 1994) find no impact.

Newman (1983) focused on RTW laws in the South from the 1940s through 1970s and found that RTW legislation was a significant contributor to population growth as labor-intensive manufacturing firms moved to RTW states.

Holmes (1998) extended Newman’s work by using RTW as an identification tool to siphon out the impact of other business-friendly policies on firm location at the county level. His study was especially important in that it included a broad range of business-friendly policies in a carefully executed study of counties in different states but with contiguous borders. Holmes (1998) reports a very
large increase in manufacturing employment in places with business-friendly policies and no unusual geographic complications. For example, he notes that while Louisiana and Mississippi are both RTW states, their border shows stark differences in manufacturing location because Louisiana has a long history of unfriendly policies toward business.

More recently, Stevans (2009) introduced an endogeneity correction in the adoption of a RTW law. Since it is possible that local factors (such as strong unions) prevent the passage of RTW laws, any test of RTW versus non-RTW states is not a natural experiment. Stevans found that after applying an econometric correction for the endogeneity problem, there were no wage or employment effects of RTW legislation. Vedder, Denhart, and Robe (2011) conducted a study of RTW using a pooled OLS (ordinary least squares) model from 1977 through 2007. They found a roughly 1 percent increase in the growth rate of per capita personal income for states passing RTW legislation. The strength of their work is its parameterization of several contributing factors and the length of time analyzed, but they do not correct for the endogeneity problem.

Hicks (2012) estimated the impact of RTW laws on manufacturing employment, manufacturing incomes, and the share of manufacturing income in states from 1929 through 2005. He examined the actual effect of RTW legislation using an identification strategy that isolated old Southern states and 1947 manufacturing employment to account for political factors affecting the passage of RTW laws. Hicks reported no impacts on manufacturing employment, share, or incomes from the full sample. However, there were statistically significant contributions of RTW laws to manufacturing income growth in the vast majority of states that had adopted legislation since 1950. Criticism of the empirical design of the study prompted a follow-up article (Hicks and LaFaine 2013) that looked at shorter time periods. The new study found that prior to 1970, RTW legislation had only a small effect on population, income, and employment. However, later periods (1971–90 and 1991–2011) saw a large and statistically significant influence of RTW.

Vedder (2010) extends the RTW literature by identifying two likely effects of RTW legislation—namely, higher population growth and levels, and higher labor productivity. His work offers its greatest contribution in explaining the transmission of policy to the action of individuals and firms. Vedder (2010: 178) suggests that his empirical
Economic Theory and Right-to-Work Legislation

Minimal formal modeling of the impact of RTW legislation exists in the economic literature. The work outlined above is either empirical or offers a descriptive theory of effects. Reed (2003) provides a review of the complexity of economic theory surrounding RTW laws and develops several arguments. The first of these is that the presence of RTW laws may permit nonunion workers to free ride, eroding the strength of unions to bargain and thereby reducing the wage premium for workers. Second, the increased requirement for effective unions under an RTW environment may motivate unions to demonstrate their effectiveness by securing higher wage and benefit gains. These two arguments, both of which are plausible, may occur simultaneously.

The impact of RTW laws on firm location decisions is of interest both as a research and policy question. The effects of RTW legislation during different periods of regional growth offer some evidence of the overall effect of RTW. Among the questions that can be asked of RTW are whether or not unionization leads to differences in firm productivity, and whether wages and benefits vary across regions with different levels of unionization. Moreover, insofar as wages and benefits are not the primary cost differential between union and nonunionized firms, other matters may play a bigger role in firm location decisions. For example, negotiating with unions may be costly, and much of the cost-increasing effects of unions are embedded in work rules and decreased flexibility in hiring and firing, not pay. Earlier researchers have offered a formal model of a production function (Hicks and LaFaive 2013), which we reprise here.

We model a simple production technology \( \theta(N) \) that is solely dependent on labor, \( N \). As described above, suppose that the level of unionization affects productivity, then \( \theta(N[u]) \), but the direction of the effect is unclear so \( d\theta(N[u])/du \gtrless 0 \). The wage effect of unionization \( w(u) \) is such that RTW could increase, decrease, or leave wages unchanged (\( dw[u]/du \gtrless 0 \)). From this, we construct a familiar labor demand function:

\[
\pi = p \theta(N[u]) - w(u)\hat{N},
\]
where profit, \( \pi \), for a firm is comprised of the multiplicative product of the price, \( p \), and a labor-only production function \( \theta(N) \). From this is subtracted the wage rate, \( w \), times employed labor units \( \hat{N} \). The first-order condition with respect to unionization is

\[
(2) \quad \frac{\partial \pi}{\partial u} = \rho \theta' (N[u]) N'(u) - w'[u] \hat{N}.
\]

If we assume that \( \theta'(N[u]) > 0 \), then Hicks and LaFaive’s (2013) model yields some straightforward results: if \( \partial \theta(N[u])/\partial u \geq 0 \) and \( \partial (w[u])/\partial u \leq 0 \), then \( \partial \pi/\partial u \geq 0 \). More simply, profits could be higher with unions if labor productivity benefits from unionization. However, in the opposite case, if \( \partial \theta(N[u])/\partial u \leq 0 \) and \( \partial (w[u])/\partial u \geq 0 \), then \( \partial \pi/\partial u \leq 0 \). These alternative findings imply that unionization may either increase or decrease firm profitability depending on the impact of unions on the productivity of labor.

Reed (2003) explains the uncertainty surrounding the direction of the impact of unionization that makes formal modeling unclear. He argues that productivity and wage effects of unions vary by industry and time. So, the conditions outlined above provide strict relationships, which may vary either through aggregation or across time. Thus, in the preceding model, the effect of RTW legislation transmits to the aggregate economy through an uncertain pathway. This uncertainty leaves the effect of RTW legislation largely an empirical question to be explored in a labor productivity model and reliant on careful treatment of the data.

For example, RTW legislation may well have been influenced by initial union conditions or local preferences. Strong unions in industrialized states may have blocked the legislation, while less industrialized states would be more likely to endorse RTW legislation. Moreover, heavily industrialized states may enjoy manufacturing clusters, such as automobile production, that continued to attract new firms seeking the benefits of agglomerations. This feature may lead to an observed \( \partial \theta(N[u])/\partial u \geq 0 \) that is unrelated to RTW legislation. Also, during periods of rapid employment growth in heavily unionized sectors, unions may have served as employee screening tools for employers and so boosted profitability. Later, as employment declined, unions may have aided in the retention of low-productivity workers thus reducing labor productivity.

Conversely, the convergence of state-level industrial structure in the past half century would tend to push increased levels of more
unionized industries (primarily manufacturing and transportation because mining, a heavily unionized industry, is not particularly mobile) in states that had historically low levels of manufacturing. In other words, states became more similar over the last half century, and this necessarily meant more manufacturing in the South. This result could have occurred without any consideration of RTW legislation. Moreover, it is not clear that in the absence of weakened union influence the optimal firm decision would be to hire more workers. Consequently, what is most helpful in understanding the empirics is in the derivation of TFP and the Solow residual in RTW versus non-RTW states, which accounts for the growth in productivity not accounted for by the growth of inputs. It is to that matter we now turn our attention.

Productivity Effects of Right-to-Work Laws

In this section, we estimate total factor productivity in the context of RTW legislation. Vedder (2010) argues that higher output elasticity of RTW states will boost aggregate output, an observation that is confirmed by his empirics. However, what is critical is the determination of the transmission mechanism of this growth and its decomposition across RTW and non-RTW states.

We begin with a Cobb-Douglas production function. Constructing a time series from the Annual Survey of Manufacturers, we estimate this model at the state level for manufacturing firms from 2004–11 (Hicks 2013). This is a relatively straightforward model, where we seek to extract the TFP across the dimension of RTW. Summary statistics are reported in Table 1.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>CAPITAL AND LABOR LEVELS AND EXPENDITURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Capital Stock ($1,000s)</td>
<td>20,562,598</td>
</tr>
<tr>
<td>Capital Expenditure ($1,000s)</td>
<td>2,884,433</td>
</tr>
<tr>
<td>Employment</td>
<td>251,765</td>
</tr>
<tr>
<td>Payroll ($1,000s)</td>
<td>11,824,359</td>
</tr>
<tr>
<td>Output ($1,000s)</td>
<td>102,000,000</td>
</tr>
</tbody>
</table>

These data have a limited time period, beginning with annual surveys in 2004. However, this suits our purpose since we will approach the problem of evaluating the relative influence of RTW laws across two samples during a period in which no RTW laws were changed. Indiana passed RTW legislation in 2012 and Michigan in 2013, so we limit our analysis to 2011. Oklahoma passed RTW legislation in 2001; thus it is likely a full movement to equilibrium would not have occurred. We address this in the results.

Our model is the familiar Cobb-Douglas production function: \( Y_{i,t} = AK_{i,t}^aN_{i,t}^b \), from which we wish to recover empirical estimates of TFP, \( A \). We also compute the Solow residual across samples of RTW and non-RTW states. TFP is the growth in output attributable to technological change in the capital and labor basis model. The Solow residual is an expansion upon the TFP estimate since it accounts for changes output not explained by the growth of inputs. In this sense, it is the combined growth in the changes in marginal product across inputs and the total technological change across time. TFP is derived from an estimation of the Cobb-Douglas production function, while the Solow residual is derived from growth accounting. Our calculation of the Solow residual is drawn from Hulten (2001) and takes the form: \( R = \frac{dY}{Y} - s_k \frac{dK}{K} - s_n \frac{dN}{N} \) where \( s \) is the share of each input. The results from our Cobb-Douglas model are reported in Table 2.

These results are distinctly similar to the canonical estimates of the Cobb-Douglas production function as constant returns to scale across aggregate sectors. At interest across these samples are the estimates of TFP. In RTW states, our estimates of TFP are 2.022, while for non-RTW states the estimate is 1.16.\(^1\) Moreover, when we combine the sample and include an RTW variable, we find it is positive and statistically significant, and includes the value of other coefficients, suggesting that RTW does matter. These results hold when we omit Oklahoma from the analysis due to its 2001 adoption of RTW legislation.

---

\(^1\)A Wald test rejects the equality of these coefficients: t-statistic = \(-8.44\), for H0: \( \beta_{RTW} = \beta_{non-RTW} \).
### TABLE 2
Cobb-Douglas Estimates

<table>
<thead>
<tr>
<th></th>
<th>All RTW States</th>
<th>All Non-RTW States</th>
<th>Full Sample</th>
<th>Full Sample w/RTW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Factor Productivity</strong></td>
<td>2.022***</td>
<td>1.166***</td>
<td>1.439***</td>
<td>1.371***</td>
</tr>
<tr>
<td></td>
<td>(6.61)</td>
<td>(5.60)</td>
<td>(9.77)</td>
<td>(9.45)</td>
</tr>
<tr>
<td><strong>Capital</strong></td>
<td>0.401***</td>
<td>0.386***</td>
<td>0.403***</td>
<td>0.393***</td>
</tr>
<tr>
<td></td>
<td>(5.24)</td>
<td>(6.86)</td>
<td>(10.79)</td>
<td>(10.73)</td>
</tr>
<tr>
<td><strong>Labor</strong></td>
<td>0.557***</td>
<td>0.632***</td>
<td>0.598***</td>
<td>0.609***</td>
</tr>
<tr>
<td></td>
<td>(6.55)</td>
<td>(10.23)</td>
<td>(14.92)</td>
<td>(15.50)</td>
</tr>
<tr>
<td><strong>RTW Dummy</strong></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.126***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4.23)</td>
</tr>
<tr>
<td><strong>Adj-R²</strong></td>
<td>0.90</td>
<td>0.96</td>
<td>0.94</td>
<td>0.94</td>
</tr>
</tbody>
</table>

**Notes:** N = 370, OLS, estimates. *** denotes statistically significant at the 0.01 level, ** at the 0.05 level, * at the 0.10 level. Each estimate has been treated with White’s (1980) heteroskedasticity corrections.

Together these results strongly suggest that the presence of RTW legislation increased total factor productivity of manufacturing firms from 2004–11. However, the estimate of total factor productivity, \( A \), has a critical weakness in that it provides an estimate across the average input mix. The Solow residual addresses that weakness by providing a single technology estimate while accounting for changes in input share of capital and labor. Table 3 reports these results.

In both the derived TFP from our Cobb-Douglas production function, and in our growth accounting of the Solow residual, we find

### TABLE 3
Solow Residual, TFP, and Output Growth
U.S. Manufacturing, 2004–11

<table>
<thead>
<tr>
<th></th>
<th>R (Solow Residual)</th>
<th>TFP</th>
<th>( d(\log[Y]) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTW</td>
<td>3.99</td>
<td>2.022</td>
<td>0.006</td>
</tr>
<tr>
<td>Non-RTW</td>
<td>2.58</td>
<td>1.166</td>
<td>20.004</td>
</tr>
</tbody>
</table>
much higher levels of productivity growth in RTW states than in non-RTW states. Consistent with received theory, output declines are occurring in non-RTW states. This is consistent with an interpretation of $\partial \theta(N[u])/\partial u \leq 0$ from the derivative of the labor demand function. This is also consistent with the findings from Vedder (2010).

This model has some inherent weaknesses, not least of which is an estimation across the business cycle, which included significant changes to manufacturing (see Hicks 2013 for a summary). To address this problem, we launch a second empirical strategy to test productivity.

We use data on manufacturing firms from the 2007 Survey of Business Owners (SBO) collected by the U.S. Census Bureau from a random sample of businesses in the United States. The data used in our analysis are based on the Public Use Microdata Sample (PUMS) released by the U.S. Census Bureau in August 2012. The sample includes all businesses from the U.S. nonagricultural sector that were in existence during 2007, filed tax returns with the Internal Revenue Service, and had revenues of more than $1,000. The Census Bureau identified these firms using IRS Form 1040, Schedule C; Form 1065, U.S. Return of Partnership Income; Form 1120, U.S. Corporate Income Tax Return; Form 941, Employer’s Quarterly Federal Tax Return; and Form 944, Employer’s Annual Federal Tax Return. Summary statistics appear in Table 4.

To test these data, we posit a very simple model of firm productivity:

$$\log \left( \frac{R_i}{N_i} \right) = \alpha + \beta_1 RTW_i + \beta_2 \log(w_i) + \beta_3 T_i + \theta S + \alpha_i + e,$$

where the receipts per employee are a function of a fixed intercept, location in an RTW state, average wages per employee in the firm, $w$, tenure $T$, a vector of firm size categories, $S$, and a dummy variable for each state (Alabama is the omitted state). Results, with state-clustered standard errors, appear in Table 5.

These results point to a direct impact of location in an RTW state on productivity, as measured by firm-level output per worker, for a random sample of almost 50,000 manufacturing firms in 2007. The effect is similar to the Cobb-Douglas and Solow residual results, statistically significant, and supportive of results reported by Vedder (2010).

Our exploration of industry- and firm-level productivity suggests that the effect of unionization, through the absence of RTW legislation, is negative and significant, and also affects firms’ capital structures across labor markets, as evidenced by the estimates of total
factor productivity from the Cobb-Douglas production function and the Solow residual. In order to more fully explore this, we turn our attention to population growth in RTW states.

Modeling the Impact of Right-to-Work Laws

In examining the role of RTW laws in fostering migration, Vedder (2010) acknowledged that factors other than RTW legislation influence migration patterns. The problem is that there is little expectation that RTW laws devolve upon states in a random fashion. Thus we adapt the endogeneity treatment from Hicks and LaFaive (2013) to address this concern.

TABLE 4
PRODUCTIVITY AND RIGHT-TO-WORK LAWS

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipts per Employee ($1,000s)</td>
<td>206.12</td>
<td>135.71</td>
<td>435.55</td>
</tr>
<tr>
<td>Right-to-Work States</td>
<td>0.36</td>
<td>0</td>
<td>0.48</td>
</tr>
<tr>
<td>Pay per Employee ($1,000s)</td>
<td>36.70</td>
<td>34</td>
<td>24.07</td>
</tr>
<tr>
<td>Established in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980–89</td>
<td>0.209</td>
<td>0</td>
<td>0.407</td>
</tr>
<tr>
<td>1990–99</td>
<td>0.189</td>
<td>0</td>
<td>0.391</td>
</tr>
<tr>
<td>2000–02</td>
<td>0.054</td>
<td>0</td>
<td>0.225</td>
</tr>
<tr>
<td>2003</td>
<td>0.019</td>
<td>0</td>
<td>0.137</td>
</tr>
<tr>
<td>2004</td>
<td>0.022</td>
<td>0</td>
<td>0.147</td>
</tr>
<tr>
<td>2005</td>
<td>0.018</td>
<td>0</td>
<td>0.134</td>
</tr>
<tr>
<td>2006</td>
<td>0.017</td>
<td>0</td>
<td>0.129</td>
</tr>
<tr>
<td>2007</td>
<td>0.010</td>
<td>0</td>
<td>0.101</td>
</tr>
<tr>
<td>Employment Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–9</td>
<td>0.134</td>
<td>0</td>
<td>0.341</td>
</tr>
<tr>
<td>10–19</td>
<td>0.165</td>
<td>0</td>
<td>0.371</td>
</tr>
<tr>
<td>20–49</td>
<td>0.205</td>
<td>0</td>
<td>0.404</td>
</tr>
<tr>
<td>50–99</td>
<td>0.148</td>
<td>0</td>
<td>0.355</td>
</tr>
<tr>
<td>100–249</td>
<td>0.112</td>
<td>0</td>
<td>0.315</td>
</tr>
<tr>
<td>250–499</td>
<td>0.027</td>
<td>0</td>
<td>0.163</td>
</tr>
<tr>
<td>500–999</td>
<td>0.008</td>
<td>0</td>
<td>0.089</td>
</tr>
<tr>
<td>1,000+</td>
<td>0.003</td>
<td>0</td>
<td>0.053</td>
</tr>
</tbody>
</table>

Hicks and LaFaive (2013) observed that places that were relatively poor in the middle of the 20th century also possessed a latent anti-union sentiment, which led to early passage of RTW legislation. The ensuing half century has seen many of these places grow faster than the nation as a whole, for reasons as diverse as expanded political freedom for minority groups to the widespread adoption of air conditioning. Consequently, a model that treats the introduction of RTW legislation as a random event would bias any estimate of its impact. For that reason, we must suspect endogeneity within the RTW legislation and measures of economic performance such as population growth.

To correct for this problem, we employ an identification strategy for the adoption of an RTW law, with an eye toward isolating RTW and other unobserved variables that may affect our economic variables of interest. Here we posit that adoption of an RTW law would be influenced by the importance of manufacturing within a state at the time the 1947 Taft-Hartley Act was adopted and the political environment surrounding unions at that time. To represent these

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha$</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>(61.41)</td>
</tr>
<tr>
<td>RTW</td>
<td>0.0748***</td>
</tr>
<tr>
<td></td>
<td>(32.95)</td>
</tr>
<tr>
<td>Wages</td>
<td>0.8561***</td>
</tr>
<tr>
<td></td>
<td>(98.09)</td>
</tr>
<tr>
<td>Tenure Category</td>
<td>Yes</td>
</tr>
<tr>
<td>Size Category</td>
<td>Yes</td>
</tr>
<tr>
<td>State Fixed Effects</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes: *** denotes statistically significant at the 0.01 level, ** at the 0.05 level, * at the 0.10 level; t-statistics in parentheses, for standard errors clustered by state.
variables, we use manufacturing income in 1947 and a binary variable representing the old Southern states (i.e., those states that seceded from the union). The identifying equation for RTW is:

\( E(R_{i,t}|M_i,S_i) = \alpha + \beta_1(M) + \beta_1(S) + u_{i,t}, \)

where \( \frac{dM}{dt} = 0, \) and \( \frac{dS}{dt} = 0. \) The resulting estimate \( \hat{R}_{i,t} \) is conditioned on two variables that do not vary with time. This equation offers two consequences regarding the endogeneity and concomitant policy concerns above. We believe the endogeneity concern is addressed through the identification of factors that would contribute to a decision to adopt RTW legislation in states. The time invariant nature of the regressors in this first-stage estimate introduces a first-stage, fixed-effects estimate of \( \hat{R}_{i,t} \), using a technique introduced by Fernandez-Val and Vella (2011).

This approach captures any time invariant heterogeneity from which concomitant policy variables would have their greatest source. To correct for time-varying heterogeneity (unequal variances), we employ a feasible generalized least squares (FGLS) estimate, because each of the subestimates are for short periods that potentially suffer from small sample–related problems, as well as from period-specific heterogeneity (Wooldridge 2002). These two steps provide a safeguard against the incidental variable concern.

For our estimation, we examine the conterminous 48 states and the District of Columbia from 1947 through 2011. Summary statistics appear in Table 6.

### TABLE 6
**Summary Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>4,195,693</td>
<td>2,787,000</td>
<td>4,747,510</td>
</tr>
<tr>
<td>Right to Work</td>
<td>0.297</td>
<td>0</td>
<td>0.457</td>
</tr>
<tr>
<td>Right-to-Work Adjacency</td>
<td>0.316</td>
<td>0.25</td>
<td>0.335</td>
</tr>
<tr>
<td>Real Personal Income</td>
<td>173,000,000</td>
<td>103,000,000</td>
<td>215,000,000</td>
</tr>
<tr>
<td>Total Employment</td>
<td>2,287,311</td>
<td>1,539,370</td>
<td>2,459,790</td>
</tr>
<tr>
<td>Real Wages</td>
<td>23,015</td>
<td>1,556</td>
<td>26,475</td>
</tr>
</tbody>
</table>

Sources: Bureau of Economic Analysis (2015); Hicks and LaFaive (2013).
We construct a very basic treatment model to estimate the impact of RTW legislation:

\[(5) \log \left( \frac{dP_{i,t}}{dt} \right) = \alpha + \beta (\hat{R}_{i,t}) + \beta \hat{W} (\hat{R}_{j,t}) + \delta \hat{W} Y_{j,t} + \theta Y_{i,t} - n + \epsilon_{i,t}, \]

where the dependent variable \( P \) is population in state \( i \), in year \( t \). Population growth is estimated as a function of a common intercept, \( \alpha \), a presence variable for RTW legislation, in state \( i \), in year \( t \), and the weighted average of that variable in contiguous states, weighted with a first-order contiguity matrix, \( \hat{W} \). This formulation is designed to account for cross-border effects of RTW legislation in adjacent states.

These two elements are corrected with the expected value of RTW from the endogeneity equation (4) above, which is designed to identify the adoption of an RTW legislation. The regression includes a first order spatial contiguity element to correct for spatial autocorrelation (\( \delta \hat{W} Y_{j,t} \)), a temporal autoregressive element (\( \theta \gamma_{i,t} - n \)) with optimal lag lengths selected through an informational criterion recommended by Bozdogan (2000). We include an error term, \( \epsilon_{i,t} \), iid, \( \rightarrow (0, \sigma^2) \). All variables employed in the analysis pass individual and common unit root tests and so are assumed stationary.

There are some econometric considerations in the estimation process. The FGLS are estimated with White’s (1980) heteroskedasticity invariate, variance-covariance matrix. The estimate of \( E(R_{i,t}) \) does not appear to suffer from weak instrumentation concerns, with and F-statistic of 511.5, and both instrumental variables enjoying statistical significance far better than 0.01 percent. We offer an alternative specification to deal with spatial autocorrelation, employing a method proposed by Pesaran (2006). We report and interpret both results, which we call Model 1 and Model 2, respectively.

We estimate the relationship between RTW legislation and population economic variables from 1947 to the present over three distinct time periods: from 1947 through 1970, 1970 through 1990, and 1990 through 2011. The purpose of this approach is to evaluate both the impact of RTW on population and whether or not effects varied across time periods. The full time period estimates are reported in Table 7.

Table 8 reports the selected results (RTW coefficient only) from two different specifications (Model 1 and Model 2) across the three different time periods and the Wald test results from the comparison of growth rates between time periods. Our analysis assumes that
growth rates for population are measures of overall economic well-being and that RTW legislation affects them through a labor demand function. This labor demand function yields conflicting theoretical possibilities as to the impact of unions, which has been the challenge to existing research in this area for some time (Reed 2003). Results above suggest that RTW would be productivity enhancing and so promote population growth. We also assume that the results above permit us to interpret the RTW legislation dummy variable as clean, in the sense that it does not capture other policy variables that are not perfectly coincident. While the estimation process leads to this assumption in our interpretations, the relaxation of this assumption simply alters the interpretation from a strict RTW effect, compared to that of a combined suite of policies of the type offered by Holmes (1998).

These results indicate that RTW legislation has a positive and statistically significant influence on population growth during the length of the observed period (the first column of results). The effect is not discernable from 1947–70 but is in the later periods. Furthermore,
<table>
<thead>
<tr>
<th>Model 1</th>
<th>RTW Coefficient</th>
<th>H0 = 1947–2013 value</th>
<th>H0 = 1947–70 value</th>
<th>H0 = 1971–90 value</th>
<th>H0 = 1990–2013 value</th>
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<tr>
<td>1947–70</td>
<td>0.000252</td>
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<tr>
<td>1971–90</td>
<td>0.15**</td>
<td>2.83***</td>
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<tr>
<td>1991–2013</td>
<td>0.01***</td>
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<td>−33.2***</td>
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<th>H0 = 1947–2013 value</th>
<th>H0 = 1947–70 value</th>
<th>H0 = 1971–90 value</th>
<th>H0 = 1990–2013 value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947–70</td>
<td>−0.0016</td>
<td>—</td>
<td>n/a</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1971–90</td>
<td>0.013†</td>
<td>1.53†</td>
<td>1.81*</td>
<td>n/a</td>
<td>0.29</td>
</tr>
<tr>
<td>1991–2013</td>
<td>0.011**</td>
<td>2.17**</td>
<td>2.65***</td>
<td>−0.36</td>
<td>n/a</td>
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</tbody>
</table>

**NOTES:** *** denotes statistically significant at the 0.01 level, ** at the 0.05 level, * at the 0.10 level, and † at the 0.15 level.
these impacts are relatively large, with growth rates boosted just over 1 percent for population. We believe these results are insensitive to alternative specifications that address the concomitant variable problem (see Hicks and LaFaive 2013 for a fuller treatment of this issue). These findings are suggestive of Vedder, Denhart, and Robe (2011), and especially Vedder (2010).

The estimates in each of these categories tell a similar story. From 1947 through 1970, the presence of RTW legislation played no role in population growth. A Wald test confirmed that for population growth, the 1947–70 period was lower than either the later period (1971–90) or the overall time. Moreover, RTW laws in adjacent states had no measurable effect during this period. Whatever the cause, it is clear that RTW legislation did not affect population growth during the more than two decades after Taft-Hartley passed, a time of brisk increases in manufacturing employment (Figure 1).

The period of nearly static employment growth in the most heavily unionized sectors, from 1971–90, experienced a very different effect of RTW, having a strong impact on population growth of 1.5 percent. In all three cases, a Wald coefficient test found statistically different coefficient values for this period when compared to values in the earlier period (1947–70).

FIGURE 1
MONTHLY U.S. MANUFACTURING EMPLOYMENT
By the final period, from 1991–2013, the effect of RTW on these three measures had lessened from the 1971–90 period but remained both statistically significant in each case and important in terms of the size of the impact (all roughly 0.8 percent higher growth in states with an RTW law). The adjacent RTW variable was neither economically nor statistically significant in any of our estimates.

Our research suggests that in the early days following Taft-Hartley, RTW legislation had no meaningful impact on aggregate economic growth measures in states in which it had passed. During the beginning of the manufacturing employment stagnation (1971–90), that changed, with RTW laws exerting a significant impact on growth of all three measures. In the period 1991–2013, the impacts of RTW on growth slowed modestly, but remained large enough that they should command economic policy attention.

Conclusion

Richard Vedder (2010) offered an important addition to the literature on RTW legislation with his description of the influence individual choice plays in both population growth and labor productivity in states where RTW legislation has passed. This article has focused on the theory and empirics of the matter, extending both the argument from Vedder into a labor demand function, and the empirics of industry and firm productivity and population growth.

We estimate a Cobb-Douglas production function for manufacturing industries at the state level and find that total factor productivity in non-RTW states was about 57 percent of the level in RTW states. Our derivation of the Solow residual suggests that non-RTW manufacturing productivity was roughly 64 percent of the RTW states. Furthermore, our firm-level analysis from the 2007 Survey of Business Owners found that RTW states achieved higher productivity (sales per employee) than firms in non-RTW states. These results extend Vedder’s (2010) examination of productivity of RTW laws across three different estimation strategies.

Our second empirical strategy examined the impact of RTW legislation on population growth from 1947 to 2013. We employ an identification strategy offered by Hicks (2012) that includes 1947 manufacturing employment and the geography of the old South to isolate union disposition among voters. Our findings suggest that from 1947–70, RTW legislation had no effect on aggregate measures of economic activity between states. However, that outcome changed
for the 1971–90 and 1991–2013 periods, when the presence of an RTW law boosted state population growth by 1.1 percent to 1.5 percent—results that support Vedder’s (2010) work. Thus, our study extends the literature by carefully and more fully examining the effect of RTW legislation in promoting both population growth and productivity growth.

References


THE DISMAL PRODUCTIVITY TREND FOR K–12 PUBLIC SCHOOLS AND HOW TO IMPROVE IT

Benjamin Scafidi

Over the past decade, Richard Vedder has become widely known in academic, policy, and media circles for his work on productivity in higher education. In fact, however, Vedder (1996, 2000; Vedder and Hall 2000) studied issues in K–12 education before turning to higher education with his 2004 publication, Going Broke By Degree: Why College Costs So Much. This article highlights Vedder’s contribution to debate on productivity in American public K–12 education and updates his findings with more recent data. It finds that the productivity problem in K–12 public education is actually worse than Vedder suggests is the case for higher education. This article also reconsiders a solution Vedder proposed to ameliorate the K–12 productivity problem—parental choice combined with the conversion of individual public schools into autonomous, employee-owned enterprises.

Richard Vedder and the Economics of Education

One can think of productivity as outputs divided by inputs. Vedder, in his work on higher education, has been concerned about...
both sides of the productivity equation—that is, higher costs and stagnant or declining output. He adopted a similar approach in his earlier work on K–12 education. In 1996, he wrote a report for the Center for the Study of American Business at Washington University, entitled “School Daze: Productivity Decline and Lackluster Performance in U.S. Education.” That report showed the tremendous increases in public school staffing that occurred from 1950 to 1993. According to data from the National Center for Education Statistics, in 1950, there were just over 5 full-time equivalent (FTE) public school employees per 100 students, while by 1993, there were more than 11 FTE school employees per 100 students. Vedder showed that this staffing surge was disproportionately due to increased employment of those who were not lead teachers. As Vedder put it, “While the number of administrators per pupil rose about 50 percent, the big increase was in support staff and in quasi-instructional staff (e.g. teacher aides, guidance counselors)” (Vedder 1996: 4–5).

Using student test results from the National Assessment of Educational Progress and the Scholastic Aptitude Test, Vedder also showed that the output of K–12 public schools—that is, average student performance on standardized exams—either decreased very slightly (1971 to 1992) or increased by about 2 percent (1978 to 1992) during the time period under study. However, this stagnant or slightly higher output occurred at the same time as a dramatic increase in real public school spending and staffing.

The Modern Staffing Surge in K–12 Public Education

According to data available from the U.S. Department of Education’s National Center for Education Statistics, between fiscal year (FY) 1950 and FY 2009, the number of K–12 public school students in the United States increased 96 percent, while the number of FTE school employees increased 386 percent (see Figure 1). American public schools hired personnel at a rate four times faster than the growth in student numbers over that period. However, the numbers above obscure important information regarding the nature of the long-term and dramatic increases in staffing. One can place public school employees into two categories—lead teachers and “other” staff (administrators, teacher aides, counselors, cafeteria workers, bus drivers, and so on). Between 1950 and 2009, teaching personnel grew by 252 percent while administrators’ and other staff
numbers increased 702 percent. That means the rise in “other” staff was more than seven times faster than the increase in students.

Given that public school personnel increased at a much faster rate than students, staff to student ratios declined significantly between 1950 and 2009, as shown in Figures 2 and 3.¹ These trends continued over the past generation. As Figure 4 shows, the number of K–12 public school students in the United States increased by 17 percent between FY 1992 and FY 2009, while the number of FTE school employees increased by 39 percent. Teachers saw a 32 percent rate of

¹Pupil-teacher ratios are a different concept than average class sizes. Average class sizes are typically measured as how many children are in the average “regular” classroom, which does not include classrooms with one child or a very small number of children. Pupil-teacher ratios are smaller than average class sizes because some teachers get work periods where they are not leading a classroom and because some students get pulled out of regular classrooms for all or part of the school day for individual or small group instruction and other educational services.
growth, while administrators and other staff experienced a 46 percent rise. That upsurge in nonteaching personnel was 2.3 times greater than the increase in students over the same 18-year period. For teachers, growth was almost twice as large as the increase in students.

In the mid-1990s, Vedder was not the only one warning about too much central administration in K–12 public schools. For example, two well-known public schooling advocates wrote in 1995 that, “educational bureaucracies become endlessly expanding financial sinkholes that eat up resources and create only mischief and red tape” (Berliner and Biddle 1995: 257). And, of course, those words were written before much of the increase in administration and other non-teaching personnel depicted in Figure 4 took place.

Did No Child Left Behind Make Us Do It?

The expansion in public school staffing between FY 1992 and FY 2009—including the relatively large increase in nonteaching personnel—cannot be blamed on the federal No Child Left Behind
During the pre-NCLB period, FY 1992 to FY 2001, public schools saw their student populations grow 13 percent while school personnel numbers increased 29 percent. The number of teachers increased 23 percent, about 1.75 times the increase in students, while the number of administrators and other staff rose by 37 percent—almost 3 times the increase in student numbers. From the school year in which NCLB was passed (FY 2002) until FY 2009, the number of students rose 3 percent while the number of public school teachers and administrators both increased about 7 percent. The primary difference between the NCLB era and the preceding time period is that the trend toward faster growth in nonteaching staff than in teaching staff was halted.

Although Staffing in U.S. Public Schools Dramatically Increased, Student Achievement Did Not

Is there evidence that increased public school staffing and disproportionate spending on nonteaching personnel improved student
After three decades of decline, America’s public high school graduation rate has increased slightly over the past generation. Using the most accurate measure of the on-time public high school graduation rate, the National Center for Education Statistics reports that the rate increased from 74.2 percent to 74.7 percent between FY 1992 and FY 2008. However, the public high school graduation rate in 2008 remained slightly below where it was four decades earlier (Heckman and LaFontaine 2010).

While Vedder (1996) considered this specific issue, others have analyzed whether inflation-adjusted increases in spending per student have increased student achievement. Important contributions to this literature include Hanushek and Lindseth (2009) and Greene (2006). Their own studies and their surveys of the literature suggest that the very large increases in real spending per student over time have not been accompanied by increases in student achievement.

This information on public high school graduation rates comes from Table 112 of the Digest of Education Statistics: 2010 and Table 101 of the Digest of Education Statistics: 2006, both from the National Center for Education Statistics (NCES) at the U.S. Department of Education.
Moreover, since 1970, the financial returns in the labor market have declined in relative terms for high school dropouts. This alone should have led to an increase in the public high school graduation rate. Yet, in fact, public high school graduation rates fell over a time period when the economic incentive for students to graduate rose.

The National Assessment of Educational Progress (NAEP) is a series of exams given to samples of students ages 9, 13, and 17. As shown in Figure 5, scores on the NAEP Long-Term Trend Assessment have not increased over the time period under examination, during which public school staffing ballooned.4

4The NAEP Long-Term Trend Assessment is conducted every four years on a national sample of 9-, 13-, and 17-year-old students. This exam is better than the Main NAEP Assessment for analyzing national trends over time because the Long-Term Trend Assessment has been “relatively unchanged” since it was created, while the Main NAEP Assessment changes “about every decade to reflect changes in curriculum.” For a description of the NAEP Long Term-Trend Assessment and how it compares to the Main NAEP Assessment, see nces.ed.gov/nationsreportcard/about/ltt_main_diff.asp.
It may be argued that staffing in American public schools needed to increase from its level several decades ago. Prior to the racial integration of public schools, many African American children had little or no taxpayer funds spent in their segregated schools. Second, students in less wealthy school districts often had much less spent on their education than students in more affluent areas. Third, students with special needs often had relatively few resources devoted to them. Court cases and changes in federal and state policy led to very large increases in public school staffing in the 1950s, 1960s, 1970s, and 1980s. All this being said, however, student achievement in American public schools did not improve when there were large increases in staffing. Therefore, with productivity defined as outputs divided by inputs, it seems clear that there has been a significant decline in the productivity of K–12 schools over the course of the period in question.

Are American Students Getting Worse?

Perhaps the additional public school staff were necessary because American students have become more disadvantaged over recent decades. Many believe children enrolled in schools today are “harder to teach” than children a generation ago (Berliner and Biddle 1995). Family breakdown, increased child poverty, and other factors may have caused the decline in graduation rates and the lack of increased test scores. There is evidence that family breakdown and low family income do contribute to lower levels of student achievement (see, for example, Heckman 2008).

Still, although rates of living with one parent increased significantly in the latter half of the 20th century, in other respects, current American students are more advantaged than their parents were. Specifically, American students typically live in households with more income, more-educated parents (although that will change because of the decline in public high school graduation rates), and fewer siblings than previous generations. Higher income, more-educated parents, and fewer siblings have all been shown to increase student achievement. Thus, those factors may offset the negative social trends that may decrease student achievement.

Because there are factors that, by themselves, would lead to increases or decreases in student achievement, the extent to which American students are harder or easier to teach overall relative to the past is an empirical question. Hoxby (2003) finds that the
characteristics of American students in 1998–99 were on balance “more beneficial for achievement” relative to 1970–71. Greene and Forster (2004) use a “teachability” index to estimate changes over time in challenges to student learning, and their results are strikingly similar to Hoxby. Student disadvantages that impede learning actually declined by 8.7 percent between 1970 and 2000. These empirical studies suggest that American students did not become harder to teach during the period of large increases in per pupil spending, flat American high school graduation rates, and constant or declining test scores.

How Can Public Schools Lower Class Size and Increase Administrative and Other Nonteaching Staff, Yet Not Increase Student Achievement?

If a given teacher has a smaller class size, she may be more effective because she could spend more time with each student on his or her unique needs. Also, there may be better classroom discipline, fewer disruptions, and so on. It is unlikely that teacher would become less effective with fewer students in the classroom. Nevertheless, when class sizes are lowered, many students will in practice be taught by a newly hired teacher—and that is the key insight needed to understand the tradeoff between class size and teacher effectiveness. Tradeoffs between quantity and quality exist in many realms of life, including class-size reduction (Levine 1999). If public schools across a state or the entire nation implement class-size reductions, they would have to hire thousands of additional teachers, and this is likely to reduce the average quality of teachers. Rivkin, Hanushek, and Kain (2005), Koedel and Betts (2011), and many other empirical studies document the wide disparity in teaching effectiveness within the public education system. Based on those empirical results, Hanushek (2010) demonstrates that even modest improvements in teacher effectiveness would produce very large gains in student achievement. Accordingly, state governments and local public school boards should have been more concerned with improving teacher effectiveness than lowering class sizes. Analogously, it seems likely that hiring more nonteaching personnel would lower the average quality of that workforce in the same way.

Another concern with hiring more nonteaching staff is the possibility it increases bureaucracy and reduces the amount of time and
energy teachers can devote to their students. “I used to be up late preparing creative lessons that I loved. Now I’m up late getting my data in,” a Fairfax, Virginia, teacher told the Washington Post in 2011. The Post reporter continued, “She and others from her school said administrative chores have become so excessive that teachers have broken down and cried at work” (McCartney 2011). The Post article pins the blame for the increase in “administrative chores” for teachers on testing requirements under NCLB. However, excessive paperwork for teachers has long been a feature of the American public education system. In 1987, researchers had teachers fill out time diaries and found that, on average, they spent eight hours per week on paperwork either at school or at home (Freed and Ketchem 1987). In addition, public school teachers and administrators often have complained about excessive paperwork under the federal Individuals with Disabilities Education Act (IDEA). The National Association of Elementary School Principals (NAESP) and others have advocated for a reduction in paperwork. NAESP quoted one teacher as saying, “It’s the additional special-education paperwork that I find most burdensome because I have to generate the same information and repeat it over and over on different forms” (Klein 2004: 58). A study commissioned by the U.S. Department of Education found that paperwork was burdensome for special education teachers and recommended reducing it (Klein 2004).

A decline in average educator quality (the result of hiring more teachers and nonteaching staff) and increased bureaucracy and paperwork (which is perhaps inherent when more nonteaching staff are employed) may explain why increased staffing in public schools does not appear to have boosted student achievement.5

5Proponents of smaller class sizes typically cite evidence from the Tennessee STAR experiment, which finds that smaller class sizes in grades K–3 may lead to achievement gains for students. While this conclusion is controversial, let’s suppose for the sake of argument that it is an accurate interpretation of the research. Even if it is the case that this experiment—which involved 11,600 students—showed that class size reductions boosted student achievement, care must be taken in attempting to translate that result into policy. A statewide, national, or other larger scale reduction in class size could have different effects because of the very large number of new teachers who would have to be hired to create the smaller classes. It is likely that these new teachers would be less effective, on average, than the incumbent teachers. Based on the evidence that there are extremely large differences in teacher effectiveness, new teachers could lead to lower average student achievement and offset any gains from the smaller classes taught by the incumbent teachers.
Opportunity Cost of the Increased Employment of Nonteachers

As a thought experiment, suppose that between FY 1992 and FY 2009, the percentage change in employment of nonteaching staff had mirrored the percentage change in the student population. Between FY 1992 and FY 2009, the number of nonteaching personnel in American public schools increased from 2.1 million FTEs to 3.1 million FTEs, an increase of 46 percent. If the number of nonteaching personnel had instead matched student growth and increased by 17.2 percent, the number of nonteaching personnel nationwide would have been 2.5 million in FY 2009. Thus, the actual number of nonteaching personnel was more than 606,000 FTEs above what it would have been had staffing growth been proportional. What’s more, some claim that a large proportion of public school budgets represent “fixed” costs. If that were true, the increase in administration should have been less than the increase in students.6

As an extremely cautious assumption, let’s assume that the average compensation and employment costs of those nonteaching personnel were only $50,000 per year per employee in FY 2009.7 If that were the case, what would public schools in the United States have been able to save if they had limited changes in the employment of administrators and other nonteaching personnel to the changes in their student populations? The answer to that question comes from taking the “extra” nonteaching personnel and multiplying it by the assumed $50,000 in costs per employee. For the United States as a whole, that calculation indicates that American public schools would have had an additional $30.3 billion in FY 2009 (that’s 606,633 × $50,000 = $30.3 billion). That $30.3 billion would represent annual recurring savings in public schools, which could be used for other worthy purposes. For context, $30.3 billion could have provided about 3.3 million students with $9,000 vouchers to be used to offset tuition payments at private schools. Alternatively, $30.3 billion could have

6For estimates and an analysis of fixed and variable costs in public education, see Scafidi (2012a).
7Data on the employment costs of nonteaching and nonadministrative personnel in public schools are not readily available. However, please see endnote 30 in Scafidi (2012b) for evidence that this $50,000 figure is perhaps a large underestimate.
been used to give each teacher in FY 2009 a raise of over $9,400 per year—a move that might, presumably, increase the quality of those entering the teaching profession.

Comparing Productivity Changes in American Higher Education and K–12 Education

In Going Broke by Degree: Why College Costs Too Much, Vedder shows that real current spending per student in U.S. higher education increased from $5,008 per student in 1929–30 to $18,396 in 1999–2000—a real increase of more than 267 percent (Vedder 2004: Table 3-1). Current spending excludes capital expenditures, and his data covered both public and private colleges and universities.

From 1976–77 to 1999–2000, Vedder finds the increase in university staffing per 100 students increased from 18.52 to 20.83, an increase of 12.5 percent. During these time periods, Vedder makes a case that university teaching and research outputs were roughly stagnant (Vedder 2004: 50–59). Thus, Vedder believes—based on his research—that over time, colleges and universities have significantly higher costs yet similar rates of output.

In the preceding sections of this article, I have made the case that outputs in American K–12 public education have been roughly stagnant over time, as measured by student test scores and public high school graduation rates. But how have costs and staffing in K–12 public schools changed over time as compared to the data Vedder cites for higher education? Using the same data source as Vedder, the Digest of Education Statistics, which is published annually by the National Center for Education Statistics at the U.S. Department of Education, the real increase in current spending per student in public K–12 education has increased from $900 per student in 1929–30 to $8,765 in 1999–2000—an increase of 873.9 percent. As shown in Figure 6, the increase in real public school spending per student was more than three times the increase that occurred in higher education over this 70-year period.

Regarding staffing, I could not use the exact same time period as Vedder due to a lack of data availability. However, for a shorter time period than considered by Vedder—1980–81 to 1999–2000, staffing in K–12 public schools increased 17.4 percent from 10.24 staff per 100 students to 12.02. As shown in Figure 7, staffing per 100 students
in K–12 public schools increased faster than the corresponding number in higher education.

What has happened to staffing since 2000, when Vedder’s analysis ended? The more recent trends in staffing are compared in Figure 8. In higher education, the trend has reversed—colleges and universities have less staffing in recent years as compared to 2000. Specifically, in 2009–10, institutions of higher education employed 18.1 staff per 100 students, a staffing decline of 15.1 percent since 2000. But, in public K–12 education, the staffing surge continued. K–12 public schools employed 12.02 staff per 100 students in 1999–2000, and by 2009–10, staffing had increased 7 percent to 12.87.

Suppose that Vedder’s analysis finding stagnant outputs in higher education, and both Vedder’s and my analyses finding stagnant outputs for public K–12 education, are all correct. If that is the case, then the productivity decline in public K–12 education is significantly greater than that for higher education.
For higher education, Vedder has proposed a variety of potential solutions to solve the productivity problem, including allowing more competition among providers and choice for consumers, allowing for-profit institutions more access to higher education markets, online learning, tying taxpayer subsidies to students to the value-added in their knowledge and skills, and greater use of private certifications of skills that bypass higher education altogether (Vedder 2004). The next section of this article describes Vedder’s creative proposal for simultaneously solving the productivity problem in K–12 public education and overcoming political resistance to greater competition and more parental choice in schooling.

**Universal School Choice and Converting Public Schools to Employee-Owned Enterprises**

In a short book, *Can Teachers Own Their Own Schools?*, published in 2000 by the Independent Institute and the Thomas B.
Fordham Institute, Vedder makes a case for universal school choice, as well as for turning over ownership of public schools to public school employees. Vedder proposes that ownership of individual public schools be turned over to school employees through an employee stock ownership plan (ESOP).

Under the Vedder-ESOP proposal, public school employees would be given shares of stock ownership in the public schools where they are employed. As a starting point for discussion, he suggests that principals would receive 200 shares for each year of experience, teachers and other professional staff (assistant principals, counselors, librarians) would receive 100 shares for each year of experience, and support staff (bus drivers, cafeteria workers, and janitors) would receive 50 shares of stock for each year of experience. The principal would be the initial CEO of the company, and the company would own all school property.

Updating and simplifying an example from Vedder (2000), suppose a school had 1 principal, 50 teachers, 22 professional staff, and
28 other staff, and that each staff member had 15 years of experience. Under Vedder’s allocation of stock, the principal would own 3,000 shares (15 years × 200 shares), each teacher and professional staff member would own 1,500 shares (15 years × 100 shares), and other staff would own 750 shares each (15 years × 50 shares). The total number of ownership shares would be 132,000. Of those 132,000 shares, teachers would own 75,000 shares; other professional staff would own 33,000 shares; other staff would own 21,000 shares; and the principal would own the remaining 3,000 shares.

Suppose the value of all school assets minus debt—land, building, buses, computers, desks, books, and so on—was $5,000,000. This $5,000,000 is the book value of the school (I have purposely set a low amount so as to be cautious in this example). Suppose, further, that the shares were worth 2 times the book value. Under these assumptions, a teacher’s 1,500 shares would be worth over $113,000 at the outset ($5,000,000/132,000 shares = $37.88; and $37.88 × 2 × 1,500 shares = $113,636).

Each employee-owned school would now operate in an autonomous and competitive educational marketplace. Since all taxpayer funds devoted to K–12 education would be allocated directly to parents, parents would have a choice among schools, which in turn would have to compete for students and funds. All schools, including employee-owned schools, would have complete autonomy to decide their tuition, curriculum, class size, pay scale, student discipline, employee dismissal, governance, and all other school policies. Of course, all laws that apply to private schools would apply to employee-owned schools as well.

To be sure, some education reformers are skeptical that public school employees should be given ownership and control over tens of thousands of public schools worth billions of dollars. But skeptics should consider this significant transfer of wealth in light of the other piece of the Vedder-ESOP plan—universal school choice. Employee-owned schools would face a market test—students and the funds dedicated to their education would flow to the schools their parents deem best. If the employee-owned schools could not attract

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8The companies in the S&P 500 are currently worth more than 2.5 times book value, despite not having a guaranteed market the way K–12 education does, with its taxpayer funding and compulsory attendance laws. Accordingly, this multiple of 2 may be low.
enough students, then the employee-owners would face a stark reality. Their choices would be to (1) improve the quality of their academic and social offerings, (2) hire new and better management, (3) sell their school land and facilities to another educational provider, or (4) see the value of their stock fall dramatically. Thus, employee-owners would have a powerful financial incentive to offer excellent educational programs or sell the valuable assets they own to someone who will.

In addition to ownership shares, myriad other details would need to be specified to convey ownership of public schools to public school employees. For example, should employee-owned schools be allowed to sell their assets for uses outside the K–12 education sector? Allowing the sale of school assets for a wider variety of uses would increase the value of these employee-owned assets. Relatedly, I offer one tweak to Vedder’s outline, in the interest of even further increasing opportunities for parents to choose among schools. I would allow public school employees to own vacant school properties as well. Many urban school districts collectively own hundreds of vacant school buildings. These districts have a poor track record in repurposing these properties or selling them (Dowdall and Warner 2013).

I see three tangible benefits of the Vedder-ESOP idea for public schools. First, the incentives of public school employees would become significantly more aligned with the interests of students and their families. Instead of advocating for job protections, cumbersome work rules, more nonteaching positions, and generous retirement benefits, employee-owners of schools would advocate within their own school communities for changes that would increase enrollments and student and family satisfaction. Of course, employee-owners would continue to advocate for more generous taxpayer funding for K–12 education. That would not change relative to the status quo, but employee-owners would face a new and powerful incentive to meet the unique needs of each and every child. Otherwise, children whose needs are not being met will move to other schools that will meet their needs, and the dollars used to fund their education will move as well. Furthermore, those employee-owners would see the value of their stock ownership fall. By contrast, employee-owners who did offer an excellent education that is valued by parents would see the value of their stock ownership rise.

Second, teachers and other public school employees would come to see the benefits of increased diversity in school offerings—not just
for students and parents, but for themselves as well. They would be able to create academic and social environments that they believe are best for students and not be subject to the preferences of federal, state, and local officials who impose a large and ever-changing array of mandates on local schools. Given greater autonomy, job satisfaction would increase.

Third, the Vedder-ESOP idea would significantly increase parental choice and the diversity of educational offerings available to parents. Instead of being largely the same in terms of academic and other offerings like current public schools, employee-owned schools would differentiate their offerings and give parents opportunities to match academic and other programs to the specific needs of their children.

Would teachers and other public school employees support stock ownership? While they would lose the certainty of union-negotiated or government-imposed class size limits, salary schedules, and teacher tenure, they would instead gain autonomy and ownership. Vedder writes, “They (teachers and others) would be trading off the lifetime job security under the old arrangement for a significant increase in their wealth plus a greater say in how the school will operate” (Vedder 2000: 30).

Vedder and Hall (2000) find that allowing more competition and choice in K–12 education produces another benefit for teachers. They point out that, theoretically, more competition among schools for students would also lead to more competition among schools for teachers. More competition for teachers would lead to higher pay and better benefits and working conditions. Using 1996 data on Ohio public school districts, Vedder and Hall find that teachers in public schools would experience a $1,084 salary increase if the share of the students in their school districts who attended private schools increased from zero to 20 percent. This salary increase was equal to about 3 percent of the average district teacher salary in Ohio at that time.

Given these benefits, and given the evidence we have about the benefits of increased parental choice in education, the Vedder-ESOP proposal is something education experts, policymakers, parents, and other citizens should debate and something enterprising states or school districts should pursue.9

9See Forster (2013) for a summary of the evidence regarding programs that extend parental choice in education to private schools.
Conclusion

Richard Vedder is well known for his work on higher education. But his contribution to our understanding of the productivity problem in K–12 education is significant too. Regarding the latter, in 1996, Vedder pointed out the declining productivity in K–12 education—that is, stagnant outputs with significantly greater taxpayer-funded inputs over time (Vedder 1996). To reverse the decline in productivity, Vedder (2000) offers a creative proposal to inject more competition among providers and choice for consumers into the K–12 school system, by converting American public schools into for-profit, employee-owned enterprises.

While Vedder has been rightly concerned with productivity in American institutions of higher education, the analysis presented here shows that the productivity problem in American public K–12 schools is significantly greater. Specifically, over the 1929–30 to 1999–2000 time period analyzed in Vedder (2004), the real increase in current spending per student in higher education increased by 267 percent, while the corresponding increase for public K–12 schools was about 874 percent. Furthermore, in the first decade of the 21st century, staffing per 100 students declined in American colleges and universities by 4.8 percent. Thus, at least one side of the higher education productivity equation has improved in recent years. However, the trend in public K–12 education has continued to worsen—during the first decade of the 21st century, public school staffing per 100 students increased by 7 percent.

Perhaps it is time to heed Vedder’s advice for public K–12 education and expand competition and choice through vouchers, tax credits, and by converting individual public schools into autonomous, employee-owned enterprises.

References


Richard Vedder and the Future of Higher Education Reform

Jayme S. Lemke and William F. Shughart II

In the 2001–02 academic year, when Richard Vedder was beginning his work on the causes and consequences of rising costs in higher education, the average cost of a single year at a four-year university was $17,418 (including tuition, fees, and room and board). In other words, for every bachelor’s degree awarded, somebody—whether the student, his or her parents, the donor of a scholarship, or the federal student loan program—was paying something around $69,672. Since then the price of college education has risen sharply relative to the prices of other goods and services. Average tuition for the 2011–12 academic year was $23,066—an increase of 32.4 percent in only a decade, compared to a 27.6 percent cumulative rate of inflation over the same period.\(^1\) With the cost of a four-year college education now approaching $100,000, Vedder’s project has only grown in significance.

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\(^1\)Average tuition statistics are from Table 381 of National Center for Education Statistics (2013). Inflation calculated from Table 24 of the August 2014 CPI Detailed Report (Bureau of Labor Statistics 2014).
Further, despite the increase in costs, the quality of college education appears to have flat-lined. Based on historical trends in performance on the Graduate Record Examination (GRE), frequently taken toward the end of college by those students considering graduate-level education, Vedder (2004) concludes that the quality of education received by the average student, although difficult to measure, likely has not changed much over time. He also examines literature that asks whether education is intrinsically valuable or valuable primarily because it assists people in signaling credibly that they are sufficiently competent to be employable. His conclusion—that student performance on standardized tests is stagnant and that diplomas and degrees are valuable, but not because of the learning they represent—damns the whole educational system with faint praise. If not for better educational outcomes, why exactly are we directing more and more of our scarce resources toward the university system?

The nature of the current educational system invites another qualitative concern. Calls for all students to have the same experiences at both K–12 and postsecondary institutions of learning implicitly assume that the optimal basket of courses, interactions, and skill sets is the same—or at least quite similar—for every student. Yet the idea that diverse people, who will contribute to society in a wide range of ways, all require the same training is a spectacular leap of faith, and those who promote it have not yet met the burden of proof. Today’s higher education system exhibits a failure to recognize either the purpose of postsecondary schooling or the potential alternative means of generating the same outcomes and social benefits. The traditional model is only one of many possible ways to encourage education, culture, and innovation. By exploring other alternatives, it may be possible to raise the quality of education and scholarly research while getting costs under control.

This article proceeds as follows. First, we describe the problem of rising costs in higher education. Second, we consider the array of potential alternative means for providing the benefits generally attributed to college educations and scholarly research. Third, we discuss the possibility and likelihood of reform. Finally, we conclude with an appreciation of how Vedder has helped us better understand these questions.
The Rising Cost of Education

Why is the cost of higher education rising so rapidly? The increase in the price of a college degree is explained at least in part by demand-side considerations. First, rising incomes mean that the populations of developed nations now have greater demands for all normal goods, including the services of institutions of higher education (Vedder 2004). Second, preferences have shifted toward more prestigious educational experiences, leading well-meaning family members to emphasize four-year colleges over junior colleges or trade schools (Vedder 2004). Third, the untested assumption that a four-year college degree has become essential for young people to succeed in an ever-more technologically sophisticated global economy has motivated public policies that subsidize higher education, further shifting out the demand curve. All of these factors contribute to the number of people applying to institutions of higher learning, thereby enabling universities to charge higher prices without risking declines in enrollment.

These “demand-induced pressures to raise tuition” are “aggravated by the non-market-driven nature of higher education” supply (Vedder 2004: 39). University attendance is, of course, not compulsory and, as such, is subject to some degree of market discipline (Vedder 2004). However, universities have been remarkably successful in avoiding exposure to the market test.

In a standard competitive market, the chain linking consumption decisions with production decisions is strong. If consumers embrace a product, the producer will earn a profit and thereby be encouraged to expand output. If consumers reject a product, the producer will be forced either to redeploy resources to some other productive activity or go out of business altogether. This loss side of the profit-and-loss equation is the burly, no-nonsense bouncer of the market; lose too often and your ability to participate on the supply side is revoked.

In the market for higher education, however, the chain linking production and consumption decisions is weak. Individuals who are not residual claimants of university profits make many decisions. The job security and compensation packages of administrators and faculty, particularly those with tenure, are tied to revenue only indirectly and only in the long run. They stand little chance of capturing any of the excess profits that might be generated by their efforts and, as such, face few costs if they pursue objectives other
than the quality of the educational experience they provide to undergraduate and graduate students. Of course, most industries struggle to evaluate the extent to which any given individual employee contributes to the bottom line. The position of the average rank-and-file faculty/staff member might not be so different from the rank-and-file employee in most large corporations in this regard, if it were not for some significant confounding factors: the difficulty of monitoring faculty performance, the third-party payer system, and the extent of subsidization of the university and its many diverse programs.

Faculty performance is notoriously hard to evaluate. The high degree of specialization within the academy makes it difficult for faculty to evaluate each other’s contributions to institutional research and teaching missions. Consequently, hiring committees, department heads, and administrators tend to put more emphasis on quantity than on the quality of publications. Evaluating the potential of a research product to influence the state of knowledge within a field is simply too difficult. Evaluating teaching performance is similarly challenging. The student course evaluation is the primary method of monitoring classroom teaching at most universities, but recent scholarship suggests that the intrinsic worth of student evaluations is overrated. A 2010 study of student evaluations at the United States Air Force Academy (USAFA) found that student evaluations are positively correlated with student performance during the current course, but negatively correlated with student performance in future, related courses (Carrell and West 2010). This finding is consistent with research demonstrating that charismatic presentation of course materials is correlated with perceptions of learning, but not actual learning (Carpenter et al. 2013).

The already difficult task of evaluating contributions to learning and knowledge is further exacerbated by the third-party payer system. The third-party payer system creates a significant and multifaceted principal-agent problem within higher education. The undergraduate student—the principal—may fund his or her own

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2At the USAFA, students are assigned randomly to faculty and required to continue along particular academic tracks regardless of the interest in the subject generated by the instructor of the first course. Further, if multiple teachers are offering the same class during the same semester, they all use the same syllabus and administer the same examinations. This means that data from the USAFA on student performance within courses and in related follow-up courses is significantly more comparable than similar data from other institutions (Carrell and West 2010).
education directly, but he or she is more likely to arrange payment by contracting with one or more go-betweens. According to Sallie Mae’s 2014 report, *How America Pays for College*, 31 percent of educational expenses are financed through grants and scholarships, and 41 percent of expenses are paid by parents or other benefactors. Those who experience the product and make the primary purchase decision—the students—pay only 27 percent of educational expenses. Furthermore, over half of these student-paid expenses are financed by borrowing at rates far below those most students would be able to obtain on an open market given their credit histories and likelihood of repayment (Sallie Mae and Ipsos Public Affairs 2014). In other words, for every $1,000 dollar increase in costs, the average student is on the hook for only $270, and only $120 of that $1,000 comes out of his/her pocket. The rest is borrowed on favorable terms with more or less unlimited time to repay. This loose connection between the payment for and the provision of the service dulls the market impact of tuition increases and fee hikes.\(^3\)

Subsidies by state and federal governments and nonprofit organizations also obscure the market value of education and hamper competitiveness within the educational system. In 2013, 40.4 percent of public university revenue originated as federal, state, or local governmental appropriations, grants, or contracts. Private universities received 12.6 percent of their funding from these sources; in the for-profit university sector, that figure was 5.7 percent of revenues (Ginder and Kelly-Reid 2013). The tax-exempt status afforded universities is another form of subsidy. Like all nonprofit organizations, universities are eligible for a number of tax incentives that are not available to others. Similarly, many contributions to universities are tax deductible for donors. This acts as yet another mechanism diverting resources toward the university system and away from other types of investment, regardless of the value created for students or third parties by the particular university or program.

Subsidization occurs within universities as well, in the form of using revenue from profitable programs to fund unprofitable programs. This cross-subsidization comes in many guises. Popular majors subsidize unpopular majors; undergraduate education

\(^3\)Vedder likens the payment structure in higher education to that in health care, where third parties, such as insurance companies and taxpayers, foot most of the bill (Vedder 2004: xvii).
subsidizes graduate education; and academic programs subsidize athletic programs (Vedder 2004). Vedder also suggests that the high price of university-provided food and housing services relative to off-campus alternatives may be evidence that commuting students are being subsidized by those living on campus. The fact that many schools monopolize the on-campus food and beverage market for themselves when chain restaurants or local eating places would be more than happy to provide a higher quality product at a lower price is further evidence that the university is getting something extra out of their resident student services—specifically, they are getting subsidies for other programs. This kind of cross-subsidization allows the persistence of programs that various customers—whether students, research funders, or sports fans—would not be willing to purchase if they were required to pay full cost.4

Ultimately, whether the budgetary cushion takes the form of student aid, tax breaks, or private fund raising, the effect is that universities can increase what they are charging without much risk of scaring away their customers. Thus, Vedder (2004: 21) notes that efforts to make college more affordable may be “ultimately self-defeating.” To illustrate, one study finds that although state appropriations increased by 40 percent and federal aid increased by 200 percent between 1986 and 2007, enrollments during the same period increased by only 40 percent, while tuition rose by over 90 percent (Gillen 2010). The implication is that subsidization is not reducing tuition costs and may even be contributing to their growth. In other words, policymakers have ignored Gordon Tullock’s advice—not for the first time—and created a transitional gains trap in which the removal of subsidies is prohibitively costly despite the fact that they create little or no long-term benefit (Tullock 1975). Funds that are intended to offset students’ costs are instead absorbed by the higher education system in ways that make education more expensive for the next cohort, leading to calls for further subsidies, which in turn cause further tuition inflation—and on and on it goes in a perpetual cycle of lessening affordability in the name of charity and equal opportunity.

4Reforming the practice of cross-subsidizing athletic programs is a particularly difficult problem to solve. See Denhart, Villwock, and Vedder (2010) and Shughart (2010).
Possible Alternative Systems

Vedder’s research raises a question—why is it that we need these things called “universities” anyway? What is the purpose of higher education? Only by first answering this question can we determine whether or not better, more efficient ways of achieving the same goals can be found.

Vedder (2004: 116) writes that, “the vital, noble mission of maintaining our civilization is the main job, sometimes almost the only important job, of universities.” The benefits of new knowledge accrue broadly, and a community that can read and write with mutual understanding will face significantly lower transaction costs when attempting to cooperate voluntarily for mutual gain (Vedder 2004). Furthermore, economic growth, and therefore the preservation of human society as we recognize it today, depends upon the continuous maintenance and generation of “our human and cultural capital stock” (Vedder 2004: 116). In other words, communities have an interest in preserving the knowledge and skills required to produce at a level that will at least maintain their current standard of living or raise it. This and similar arguments are often used to justify government spending on universities as a public good, or at least as a good that generates positive externalities for society as a whole. Not only are the benefits of an educated populace, once produced, available to all at zero marginal cost, but the nonexcludable nature of many of those benefits (such as the acquisition of pure scientific knowledge, engineering know-how, and a more cultured, better informed and cosmopolitan population) makes it nearly impossible to exclude those who do not wish to contribute to financing institutions of higher learning. Consequently, so the argument goes, people in an open market would rationally choose to free ride on the educational support provided by others, resulting in underprovision (or no provision at all) of a valuable public good.

This traditional view encounters three problems. First, higher education may not be as beneficial for the public at large as we think. Given the arguably negative impacts of the current higher education system—namely that students and taxpayers are deeply indebting themselves to provide a service that may not supply much beyond its signaling value—universities actually may generate net negative externalities by misallocating resources (Vedder 2004). Second, even if the external benefits to education are on net positive, they may not
be positive at the margin. This can occur if top students, rather than marginal college attendees, generate the bulk of education’s positive spillovers (Buchanan and Stubblebine 1962, Hall 2006).

The third and perhaps most difficult-to-overcome challenge to the traditional view is that even if higher education does generate positive externalities on the margin, subsidization and other forms of public provision are not always the best way to encourage production of public goods. This can be the case if components of the public good are actually private goods, if the extent of government failure exceeds the extent of market failure, or if there are significant offsetting unintended consequences (Shughart 2011). All three of these situations plausibly apply to higher education. Public institutions provide many private goods, meaning that one person’s consumption of the good reduces the stock available for others to consume, and that access to the good can easily be limited to those who are willing and able to pay. Food services, lodging, and fitness centers are obvious examples of goods that are regularly and without difficulty provided on the private market, often at better quality and lower cost. Many of the components of instruction may also be best conceived of as private goods. If one of us aids a student with a thesis project, the benefit accrues primarily (if not completely) to that student, and we have less time available to help others or to contribute to other activities.

A public good can also be a “bad public good” (Shughart 2011) if its provision is associated with significant government failure or unintended negative consequences. No human institutional design is ideal, and so alternative ways of providing higher education should be evaluated as they truly are, not as they theoretically could be. Given that no solution will work out perfectly, the only alternative is to select the option that will be the least imperfect. Or to put the point more generally, cats can be skinned in many different ways and, all else being equal, the least-cost method always is preferable. For any given alternative productive arrangement—public, private, or somewhere in between—one encounters both external costs associated with the good produced (in this case, the costs are the positive or negative externalities associated with higher education) and decision-making costs (the costs of providing that good through a particular organizational structure). The optimal mode of provision will be that which minimizes the sum of decision-making costs and external costs (Buchanan and Tullock 1962). The usefulness of this theoretical
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approach has been validated empirically by strong evidence that so-called public goods are often provided more efficiently by individuals or local cooperatives (Coase 1974, Ostrom 1990).

What are the alternative methods that could be used to generate the public goods usually thought to characterize institutions of higher learning? We do not presume that we or anybody else could conceptualize all of the possibilities, but we will consider here three different approaches: (1) continued public support and regulation, but under a different set of rules; (2) public support of a deregulated and privatized educational system; and (3) decentralization of both the funding and provision of higher educational programs.

Public Funding, Public Provision; or, Reform from Inside Out

The least radical alternative to the current higher education system is to preserve the current structure of primarily public funding and provision, but to alter the incentives of the system from the inside. This approach to reform views effective bureaucratic organization as posing challenging but soluble problems (see, for example, Glazer and Rothenberg 2001). According to this view, it is simply a matter of getting the incentives right—do that, and effective public funding is possible.

An example of this type of reform might include tying administrative compensation to university rankings. Since one of the reasons universities can afford to make bad decisions is that the decisionmakers have no profits on the line to lose, such an attempt to approximate a market signal could introduce a degree of accountability into the system (Vedder 2004). However, whether or not this policy will produce desirable outcomes depends upon the way in which rankings are calculated. If university rankings are effectively able to measure the quality of education and knowledge growth (that is, value added for students), then we can expect greater attention to rankings to yield positive results; if university rankings measure variables that are irrelevant to or undermine the objective at hand, then we can expect greater attention to rankings to be disastrous. For example, spending

5Seventy-two percent of postsecondary students are enrolled in public institutions (National Center for Education Statistics 2013: Table 219); 57.3 percent of undergraduates received federal student aid at an average funding level of $8,200 per student; and 15.4 percent of undergraduates received state student aid at an average funding level of $2,700 per student (Radwin et al. 2013: 9–10). We believe this qualifies our current system as primarily public in nature.
per full-time student accounts for a full 10 percent of a university’s score in the college rankings issued by *U.S. News & World Report* (USNWR) (Morse 2014). As such, an incentive that encourages attention to USNWR may be more likely to encourage than to discourage bureaucratic bloat. Moreover, it is widely known that university administrators both know how USNWR’s rankings are constructed and “massage” the information they supply to the magazine so as to move up the list. Sauder and Espeland (2007), to cite one relevant study, report evidence that administrators redistribute resources—by, for example, shifting money from need-based to merit-based scholarships—in order to maximize their positions within the rankings. The more the system is gamed, the less meaningful the rankings are and the greater is the potential for unintended consequences.6

Tenure—the customary practice of allowing more senior faculty members to bless the peers they deem to be sufficiently credentialed with the near promise of lifetime employment—provides another example of the difficulty of internal reform. Controversy over the value of tenure abounds. On one hand, tenure is lauded as protecting academic freedom (Carmichael 1988); on the other hand, tenure makes it difficult to remove underperforming faculty or to reallocate instructional resources from less popular to more popular majors. Consequently, tenure can breed stagnation rather than the innovation it was designed to foster. Moreover, a junior faculty member’s immediate colleagues are one of the key determinants of whether or not he or she will be awarded this particular prize. The result of this reliance on intradisciplinary success often discourages faculty from investing in teaching or engaging with those in other disciplines. Vedder (2004: 77) argues that “this is bad for students, bad for scholarship that has broad social meaning, and bad for developing a university community that has common meaning.”

If Vedder is right that tenure is bad for academic communities, then why does it persist? A university’s choice to continue the practice of tenure is, after all, voluntary. Even for the purposes of accreditation, which is not always required but does have implications for federal funding, accreditation bodies often care more about the

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6USNWR’s rankings would be characterized as “high-powered” incentives in the literature of contracting. They are salient for administrators’ prestige even if they may be unrelated to educational outcomes for students.
stability of the faculty than about how that stability is maintained. Tenure is only one way of doing so, and if it is at odds with students’ educational outcomes and the advancement of knowledge, then it would seem foolish to turn the control of such a significant portion of the economy over to groups of faculty and administrators who are governed by its incentives. Nevertheless, universities have adopted tenure systems for hundreds of years. This stability, and the fact that the beneficiaries of tenure are those in the strongest position to ensure its continuance, suggests that significant change in such practices is unlikely to come from within the university system.7

The bottom line is that improvements in the publicly funded, publicly provided university system are difficult and downright unlikely. Even if designing good rules were possible, strong forces are at work within the university that would prevent their adoption.

Public Funding, Private Provision

A second alternative means of providing the benefits associated with higher education is to continue public subsidization, but shift to private production. Programs that are publicly funded but provided by private agents are commonly referred to either as outsourced or privatized. Outsourcing can be efficient because sometimes the costs associated with negotiating an external contract actually are lower than the transaction costs associated with internal organization (Coase 1937). One way to think about privatization or outsourcing of higher education is to identify particular functions within universities that can be privatized (Holian and Ross 2010, Vedder 2004). The clear first candidates for outsourcing are those goods that really are private rather than public in nature—such as housing, food, cleaning, groundskeeping, and building maintenance. These could be outsourced rather than produced internally by, as is the case in many public institutions of higher learning, full-time government employees.

One of the reasons why bureaucratic provision of on-campus food and lodging is inefficient is that the people in charge are not residual claimants of the profits generated by their efforts (Kerekes 2010).

7One creative solution Vedder offers is to make tenure an optional part of faculty members’ compensation packages. This could be beneficial in that some faculty, particularly those who are confident about their abilities to perform, may prefer additional salary or other nonwage benefits to tenure if given a choice (Vedder 2004).
The bureaucrat’s primary allegiance is not to minimizing cost at any given level of quality, but instead to making themselves and their superiors look good (Tullock [1965] 2005). This is more likely to involve increasing rather than reducing spending. Consequently, shifting to a private provider who must compete for the contract can reduce costs, if the contract supplies the proper incentives to both parties. University administrators are not likely to benefit themselves by choosing a higher cost or lower quality provider if all else is held constant. Unfortunately, however, all else rarely is held constant. The same bureaucracies that currently manage the monopoly versions of these services usually have a say in selecting the private contractor. Consequently, the same preference for high-quality over low-cost products may persist, as in most situations in which an individual is choosing a product for which someone else will have to pay. In other words, privatization is not really a choice between bureaucratic and market provision—it is a choice between two different types of bureaucratic provision.

Another, more comprehensive way to think about privatization within higher education is to outsource the entire system. The most familiar proposal for such a reform is a voucher system. In a voucher system, subsidies go directly to students who are then able to choose where they would like to spend the money (Vedder 2004). Milton Friedman ([1962] 2002) famously advocated such a system for K–12 education, but vouchers could function in a similar manner at the higher education level. Various G.I. bills enacted since the end of World War II have enabled millions of demobilized armed forces veterans to earn undergraduate and graduate degrees at colleges of their own choosing. Such a system has the advantage of providing support for those who would not otherwise be able to afford higher education while still preserving some degree of market competition among universities. However, since the cost to the individual student is still being offset by public support, the ability and incentive of colleges and universities to spend at greater-than-optimal levels will persist. One way around this is to create a binding constraint on the costs that the public universities can charge.

8The incumbent on-campus public enterprise is often allowed to compete for the right to continue to provide the good or service, but care must be exercised in evaluating such proposals against those submitted by private contractors because the on-campus incumbent typically does not maintain a separate capital budget.

9Boettke, Coyne, and Leeson (2011) make a similar point in the context of the debate over competitive governance.
dollar value of the voucher. If the voucher’s value were allowed to rise indefinitely, the system would impose little cost-controlling discipline. On the other hand, if the initial value of the voucher is tied to inflation or some other strict (and readily observable) cap, then spending can be kept within bounds (Vedder 2004).

One advantage of the voucher system is that it allows politicians to take action on higher education reform without going further down the regulatory rabbit hole. Proposed regulations include setting a tuition price ceiling; taxing tuition charges above a certain level; adjusting the set of tax benefits currently received by not-for-profit universities; or mandating specific cost reductions through policies such as establishing minimum teaching loads, maximum administrative salaries, or spending caps for nonacademic programs (Vedder 2004). Such targeted regulatory efforts are frequently ineffective because of how easy they are to evade through creative accounting and organizational restructuring. Furthermore, the nature of policy design is that academic industry insiders are often called upon for their advice. This means that higher education representatives will likely have a say in how these policies are designed, enabling them to push for reforms that will impose minimally effective constraints and may even funnel additional rents to the university. A voucher system would mitigate these concerns by turning the problem of how to cut costs over to competing private providers.

However, even a voucher-funding mechanism or some other form of outsourcing does not guarantee a lessening of cost-raising public regulations. Once a government agency has decided to support an endeavor financially, the temptation—some would say moral imperative—to control the quality and equitability of the subsidized project is difficult to resist. One example is Title IX regulations on gender equality in athletic programs. These regulations shape, to some extent, which programs a university is allowed to operate, limiting the range of alternatives that a private market could provide, and are unlikely to go away so long as universities accept any type of public support (Vedder 2004).

**Private Funding, Private Provision**

The third and most radical alternative—private funding and private provision—actually encompasses a wide range of potential policy choices. From the modern for-profit universities, to trade schools and corporate training programs, to community encouragement of
participation in the arts and sciences, many ways exist for private communities and individuals to improve upon or replace the current educational system.

Is it reasonable to expect private individuals to invest in education? In one sense the answer obviously is yes, because it happens already. The transfer and development of knowledge routinely takes place beyond college classroom walls. Particular skill sets—and the signal that one is competent to employ them—can be obtained by enrolling in corporate or private training programs (Vedder 2004). Even with respect to the advancement of scientific knowledge, the extent to which companies and nonprofit institutes engage in research calls into question the claim that universities perform an irreplaceable knowledge-augmenting function. By most spending-based measures, less than half of basic scientific research is conducted by universities (Vedder 2004). In short, the claim that universities are the only entities that can carry out educational and research missions ought to be rejected. However, the more difficult question—whether universities contribute to research or teaching in ways that could not be duplicated in another lower-cost institutional framework—is not so easy to disprove.

A recently popular alternative to the traditional university system is the for-profit university. These institutions cater primarily to adults, focus on vocational programs and job-skill acquisition, and do not invest much in scholarly research or infrastructure (Vedder 2004). The University of Phoenix weathered the recent financial crisis to remain profitable. Stock in the corporation that founded the school, Apollo Education Group, increased by 1,794.17 percent between January 1995 and October 2014—over four times the growth rate of the NASDAQ composite index.10 This experience is not unique and has been emulated at for-profit universities of various sizes, structures, and purposes (Vedder 2004). One of the proposed advantages of for-profit institutions is the relative ease with which they are able to explore alternative knowledge-delivery mechanisms, including online distance learning and certification programs (Vedder 2004). For-profit education also has its downsides. Students in private for-profit programs graduate with heavier debt burdens, have higher loan default rates, and are more likely to be unemployed six years after starting college (Deming, Goldin, and Katz 2012).

Observations like these have led detractors to paint for-profit institutions as exploiters who prey upon the disadvantaged, low-income populations who are their primary customers nowadays (Schade 2014). The question remains, however, whether this is a permanent feature of for-profit education, or an artificial effect driven by the subsidization of traditional institutions of higher learning. As their long and varied history demonstrates, no economic or logical constraint necessarily limits for-profit institutions to their current form. There are, however, many reasons to believe that introducing new delivery systems and a better set of incentives into higher education would be beneficial.

For-profit schools have a long and varied history. Schools in ancient Athens were operated on that basis, as were many schools in Great Britain and the United States prior to the mid-19th century (Bennett, Lucchesi, and Vedder 2010). The Industrial Revolution, a period of incredible innovation that changed the face of the world, occurred during a time when there was little public support for education (Vedder 2000). Many reasons have been advanced to explain the rise of public funding in the United States during the latter half of the 19th century. Some claim that public schools were developed out of the liberal democratic ideal of equal access to education; others have noted that public schools were created by people who felt threatened by “new” ideas—such as Catholicism—and wanted to ensure that ideals other than their own were not incorporated into the educational system (Vedder 2000). That motives other than equal access are at play is bolstered further by the fact that neither Vedder nor historical research can identify any significant increase in school attendance coinciding with the shift from private to public funding (Vedder 2000).

Privately run and funded schools could adopt many different governance structures. In *Can Teachers Own Their Own Schools?*, Vedder (2000) explores the possibility of employee stock ownership plans (ESOPs) in K–12 education. If ownership control were in the hands of stakeholders—teachers, principals, and parents at the K–12 level, or faculty, administrators, and students at the university level—then the profits (or lack thereof) would be borne directly by those responsible for decisionmaking. Institutions free of the strings that come along with federal subsidies would be able to differentiate themselves in the educational marketplace. Innovation would not only be possible, but also rewarded financially. All participants
in the system would benefit from identifying cost-cutting measures. In today’s system, no benefits accrue to faculty from cutting costs, and students who are funded by third-party payers also receive no benefits from greater cost effectiveness. Although ESOPs can be risky—they put employees at the risk of losing not only their jobs, but also their pensions if the organization goes under—a more direct ownership structure in the higher education system could produce unexpected gains.

An advantage of moving to private funding and provision is that subsidization of the existing mass-market education system may currently be crowding out more cost-effective, higher-quality alternatives. Educational programs and research projects conducted by corporations, private individuals, and nonprofit organizations also generate positive externalities. The benefits of a life-saving technology or a higher literacy rate are not less valuable if they are produced by nontraditional means. So if subsidization crowds out a private alternative, the positive externalities generated by the public option actually replace rather than reinforce the externalities associated with the private option. If some of these private alternatives are more effective than the traditional university system, diverting funds away from them into the traditional system can represent a missed opportunity to generate further positive externalities.

The evidence that higher rates of college graduation lead to economic growth is subject to this caution as well. How does one know that there would not have been more economic growth under an alternative regime with fewer college graduates? If university-based education and research are subject to diminishing marginal returns, the benefit of adding another student to the already massive traditional system may be insignificant relative to the potential returns from shifting bright young people into new, unconventional systems.

Change Is Going to Come

The above comparisons of alternative ways to generate the benefits associated with higher education could, perhaps, be interpreted as an exercise in idealism. Proposing alternative systems is all well and good, but identifying a realistic way of bringing them about is a different game entirely. So now we ask, where are successful calls for reform most likely to originate?
Reform in the supply of higher education could come about in two ways: endogenously, from within the universities themselves, or exogenously, from changes in today’s regime of public subsidies and regulation. Exogenous change is notoriously difficult to sustain. The design of reform is complex and usually requires the involvement of experts. This makes regulatory capture a possibility, if not a predictable likelihood. Even if this kind of interest-group influence is avoided, industry insiders can usually identify and adopt ways to get around any given regulation. One effective constraint could come about if increasingly tight state budgets limit the extent to which governments are able to participate in the higher education system as third-party payers (Vedder 2004). Budget constraints may force a degree of market discipline on universities that neither universities nor legislators would be willing to force on the system themselves.

Endogenous change in higher education confronts its own set of difficulties. The decision to stop, continue, or expand any given productive activity within a bureaucracy will be made based not on information about that activity’s value to others, but instead on that activity’s value to the persistence and health of the bureaucratic organization (Tullock [1965] 2005). One way this tendency manifests within higher education is that universities often have a different perspective on expenses than most for-profit entities. For most firms, finding ways to reduce expenses can be just as beneficial to the bottom line as finding new ways to bring in revenue. Universities, however, are rarely in a position to be able to benefit by cutting costs. While most firms seek to maximize the difference between revenue and expenditure, universities instead seek to equalize revenue and expenditure. Instead of acting with an eye on the bottom line, university budgets are formed by asking the different units on campus how much they intend to spend, adding up those figures, and then compensating for any shortfall by adjusting tuition or efforts in procuring external funding (Vedder 2004).

Universities are also actively pressured not to cut spending by major constituents. Faculties are not only influential in determining expenditures, but also are not residual claimants of any profits the university might earn as a result of greater efficiency. This effect is exacerbated further by the fact that it is often the faculty who choose the administrators (Vedder 2004). Faculty members comprise the group with the most influence over hiring, but the cost of a good or bad personnel decision is distributed across the entire university
population. Credit or blame is unlikely to be connected back to the faculty representatives on the hiring committee and, even if it were, the tenure process means that this knowledge of error is unlikely to result in career or financial penalties. Once again, the distance between the decision maker and the consequences of the decision makes meaningful reform problematic.

Given the difficulty of reform motivated by those on the production side of the education industry, it may be more likely that reform will come through customers refusing to continue to pay the current price for the current product. Relative to a high school diploma, the labor-market returns to acquiring a four-year degree are positive. College graduates have higher lifetime earnings and are less likely to be unemployed. Compare, for instance, the $34,000 in median annual earnings a high school graduate can anticipate to the $57,000 median annual earnings for those with bachelors’ degrees (Oreopoulos and Petronijevic 2013). However, estimates of the magnitude of the return to education vary after efforts are made to control for innate ability and other potentially confounding factors. OLS specifications using 1995 data suggest that the rate of return to education ranges from a 1.8 percent to a 17.7 percent increase in wages per additional year of schooling, depending on gender and country of residence, with women generally receiving higher returns. The same study found that the average return to education internationally was approximately 6 percent using OLS methods but approximately 9 percent using instrumental variable (IV) methods. Clearly the results of these studies are susceptible to measurement error (Harmon, Oosterbeek, and Walker 2000). However, the returns to the marginal individual may be significantly lower than these numbers suggest. One recent study of a sample from the National Longitudinal Survey of Youth finds that the return to education using a standard IV model is 9.5 percent, but the return for the marginal individual from the same sample is less than 1.5 percent (Carneiro, Heckman, and Vytlacil 2011).

Looking forward, these rates of return may not last, particularly if bachelors’ degrees become so common that employers can no longer reliably use them as a signal of competence.\footnote{The lifetime earnings gap could also be explained by sharply falling values of high school diplomas, especially those granted by government schools. That issue is a worthy topic of future research.} Such a change could lead consumers to alter their perceptions of the worth of a college
degree, decreasing the demand for higher education. Even if the perceived value remains high, applications and enrollments could decline because of a slowing population growth rate, restrictions on enrollment of international students, or the market having reached the limit of qualified college applicants (Vedder 2004). All of these forces exert downward pressure on demand and thereby tuition prices.

Another way that the cost of higher education could shrink is that as higher education absorbs greater and greater shares of GDP, calls for reform—and subsequent actual reform—will become more likely (Vedder 2004). Rising costs will also encourage students to pursue alternatives to the traditional higher education system (Vedder 2004). In other words, students and third-party payers may reach the limit of what they are willing to tolerate.

Conclusion

Richard Vedder provides compelling reasons for rethinking the traditional, stale logic behind public support of higher education. The system of subsidization through third-party payers has made education less affordable and in many ways less desirable. Costs are rising, quality is stagnating, and the traditional higher education system has attained a position that is too often secure from challenge and contestation.

However, if those of us within the higher education system genuinely reflect upon the conversation Vedder has brought to the table, we should be feeling decidedly less secure right about now, if not downright uncomfortable. Taken seriously, Vedder’s work suggests that many of the decisions that university faculty and administrators make on a daily basis may harm the students they purport to help. The growth of administrative bureaucracy, third-party payments through subsidies and loans, and discretionary faculty governance all serve to drive up costs for the consumers of higher education and insulate the providers of higher education from the discipline of the market. Further, the system of subsidies that supports higher education—including private and publicly financed loans to students—makes it more difficult for alternative systems for the production of education and scientific knowledge to compete.

*Going Broke By Degree: Why College Costs Too Much* (Vedder 2004) and Vedder’s other work on higher education supply thorough empirical analyses of the rising costs of higher education. But Vedder
also lays down a bold and exciting challenge. He imagines and then carefully weighs many creative and potentially fruitful approaches to higher education reform. In outlining the broad strokes of three different ways that individuals and groups can support the development and sharing of knowledge—public provision with public funds, private provision with public funds, and private provision with private funds—we have attempted to pave the way for other scholars and analysts to follow in Vedder’s footsteps. By thinking more openly about how to produce the benefits that are traditionally attributed to the higher education system, perhaps there is a way that those of us interested in the advancement of knowledge can better serve our students and ourselves.

References


SUBNATIONAL ECONOMIC FREEDOM AND PERFORMANCE IN THE UNITED STATES AND CANADA

Daniel L. Bennett

During his illustrious career spanning more than half a century, Richard Vedder has tirelessly advocated for limited government and free enterprise. Much of his scholarship has focused on examining how fiscal and labor market policies consistent with the principles of economic freedom are associated with economic and social benefits such as stronger economic performance (Vedder 1981, 1990), lower unemployment (Vedder and Gallaway 1996, 1997), and poverty alleviation (Vedder and Gallaway 2002). Vedder has also examined the impact of government policy on income inequality (Vedder 2006; Vedder and Gallaway 1986, 1999; Vedder, Gallaway, and Sollars 1988), an area that he and I have collaborated to study (Bennett and Vedder 2013, 2015). Thus, Vedder’s scholarship has contributed to our understanding of the impact that economic freedom exerts on economic outcomes.

Vedder’s research has primarily examined the effects of individual policies such as the structure of taxation and barriers in the labor market, but a mounting body of academic research links aggregate measures of economic freedom to a variety of positive
economic, political, and social outcomes. Hall and Lawson (2014) and Hall, Stansel, and Tarabar (2016) provide recent surveys of this literature. This article builds on my previous work with Vedder and contributes to the growing body of research on the effects of economic freedom by examining the relationship between subnational economic freedom and various measures of economic performance for a panel of U.S. states and Canadian provinces over the period 1980–2010.

Existing theory and empirical evidence suggest that economic freedom is positively associated with economic development and labor market outcomes, which the evidence presented here further corroborates, but the relationship between economic freedom and inequality is not well understood. It is important to examine how economic freedom affects inequality because income inequality has been heralded as the “defining challenge of our time” by influential public figures and economists. Free-market capitalism is often blamed for rising inequality, and the prescribed solution is typically freedom-reducing government interventions. Pope Francis (2013: 48), for instance, describes market capitalism as a system of exclusion and inequality that is “unjust at its roots.” Paul Krugman (2013) points to U.S. financial deregulation and entitlement reform as factors in driving higher U.S. income disparities. President Barack Obama has repeatedly expressed a desire to raise the federal minimum wage and increase the progressivity of the income tax structure as means to stem the tide of rising inequality. Thomas Piketty (2014: 1) argues that without corrective political intervention, capitalist economies inevitably produce rates of return on capital that exceed the growth rates of income and output, a process that “automatically generates arbitrary and unsustainable inequalities.”

While free-market capitalism is heralded as the villainous perpetrator of inequality, existing theory and evidence on the relationship between economic freedom and inequality is largely inconclusive (Bennett and Nikolaev 2015b). By necessity, institutional and policy reforms intended to reduce inequality through government intervention reduce economic freedom, potentially undermining the other positive effects associated with economic freedom such as economic development and improved employment opportunities, both of which enhance economic well-being. The results presented here suggest that subnational economic freedom is associated with higher levels of income per capita, lower rates of unemployment, and higher
income inequality across subnational economies in the United States and Canada.

Methodology and Data

This article utilizes panel data from the 50 U.S. states and 10 Canadian provinces over the period 1980–2010 to estimate the partial effects of subnational economic freedom on measures of macroeconomic performance, including income per capita, the unemployment rate, and relative income inequality. It does so using the fixed effects specifications given by equation (1):

\[
PERFORM_{r,t} = \alpha_0 + \alpha_1 EF_{r,t} + X_{r,t} \beta' + \delta_r + \epsilon_{r,t},
\]

where \(PERFORM_{r,t}\), \(X_{r,t}\) and \(\delta_r\) represent economic performance, economic freedom, a vector of control variables, and a time-invariant state/province unobserved effect, respectively, for state/province \(r\) in period \(t\).\(^1\) It is the first study on subnational economic freedom and economic performance that I am aware of that pools subnational data for these two North American countries. Because it does so, the number of variables available to control for is limited because of data availability and comparability.

Economic Freedom Data

Subnational economic freedom measures for the U.S. states and Canadian provinces are from the Fraser Institute’s Economic Freedom of North America (EFNA) annual report (Stansel and McMahon 2013). The EFNA composite index is comprised of three area indices: size of government (EFNA1); distortionary taxation and takings (EFNA2); and labor market freedom (EFNA3).\(^2\) The data are available annually over the period 1980–2010. The data

\(^1\)In some of the specifications used in this study, the Hausman test suggests that a random effects estimator in a specification including a dummy variable equal to 1 for Canadian provinces is efficient, but in most specifications, the test suggests that the random effects estimator is inconsistent. Because the fixed effects estimates are always consistent and the results are qualitatively similar when using a random effects estimator that includes a Canadian dummy variable, only the fixed effects results are reported.

\(^2\)For the interested reader, Alberta, Delaware, Texas, Nevada, and Wyoming are the five most economically free subnational economies in the most recent period. Prince Edward Island, Quebec, Nova Scotia, New Brunswick, and Manitoba are the five least economically free subnational economies in the most recent period.
used in this study reflect a five-year average within two years of each period ending in zero and five to minimize short-run fluctuations associated with business cycles. Although the EFNA provides both all-government and subnational government measures, this article utilizes the all-government EFNA data only because it is assumed that incentives created or destroyed by policy interventions are invariant to the level of government instituting policy.

Economic Performance Data

Three measures of economic performance are utilized in this study. First, gross income Gini coefficients are used as the measure of relative income inequality. The Gini coefficient was chosen primarily because of data availability but also because it is widely used in empirical studies. The Gini coefficient is a measure of relative inequality that ranges from 0 (perfect equality) to 1 (perfect inequality). The Gini coefficient data for the United States come from Galbraith and Hale (2008), who estimate family gross income inequality measures annually using between-industry pay inequality data for each state over the period 1978–2004. Although the data are available annually, quinquennial data are utilized in this article. Each quinquennial observation reflects the five-year ($+/- 2$ years of periods ending in 0 and 5) Gini value over the period 1980–2005. These data are supplemented with the five-year average gross household income Gini values over the period 2008–12 to extend the panel to 2010. The latter data are from the American Community Survey five-year estimates.

Gross family income Gini measures for the Canadian provinces are from the Income Statistics Division of Statistics Canada and are available annually over the period 1980–2011. As with the U.S.

3The data are available annually since 1969, but the subnational economic freedom data are only available since 1980, so the earlier data are not used in the current analysis.

4As an illustration, the observation for 2000 is the average over the period 1998–2002.

5The 2010 observations are adjusted using a regression technique. The Galbraith and Hale (2008) five-year average Gini measures are regressed on household gross income Gini coefficients from the decennial censuses over the period 1980–2000 and a set of fixed time-effects for 1980, 1990, 2000, and 2010. The $R^2$ value from the OLS estimates is 0.898. The coefficient estimates are then used to predict the 2010 values.
Economic Freedom and Performance

measures, a five-year average for the period +/− 2 years of each quinquennial period are used. The resulting panel of data includes quinquennial measures for each of the 50 U.S. states and 10 Canadian provinces spanning the period 1980–2010 and are referred to in the results as GINI.

Next is the natural log of real income per capita, in constant 2011 U.S. dollars (LRGDPL). Nominal state-level GDP data and population data for the United States are from the Census Bureau. Canadian province-level nominal income and population data are from Statistics Canada.6 Third is the unemployment rate, or the number of unemployed persons as a share of the total labor force (UNEMPLOY). These data are from Statistics Canada and the Statistical Abstract of the United States.

Data for Control Variables

Because this article pools subnational data for the United States and Canada, the selection of control variables is limited by data that is relatively comparable across the two countries. Several variables are controlled for that potentially influence economic performance, including the adult four-year college attainment rate (COLLEGE), the share of the labor force employed in the manufacturing sector (MFG), the dependency ratio (DEP2LAB), the female share of the population (FEMALE), and the natural log of population density (LPOPDEN).7 The source for the Canadian data is Statistics Canada. With the exception of the MFG data, which is from the Bureau of Economic Analysis, all of the state-level data are from the

6Nominal state-level income figures before 1997 pertain to SIC industrial classifications, while post-1997 figures reflect NAICS classifications. An average of the SIC and NAICS estimates is used for 1997. Population figures are only available annually after 2000, and in census years before then. Intercensal populations were interpolated using compound growth rates between the 1980–90 and 1990–2000 censuses. State-level income per capita figures are converted to real 2011 figures using the CPI–U. Province-level nominal income figures are available annually over the period 1984–2010. Observations for 1980–83 are extrapolated using provincial-level average annual growth rate over the period 1985–89. The nominal income per capita figures are converted to current U.S. dollars using purchasing power parity factors from the World Bank International Comparison Program database. The current U.S. dollar–denominated provincial figures are then adjusted to constant 2011 figures using the CPI–U.

7DEP2LAB is defined as the ratio of the number persons under age 15 and above age 65 to the number of persons between ages 15–64.
Economic Freedom and Income Per Capita

Institutions and policies consistent with economic freedom promote competition, incentivize investment, and encourage entrepreneurism, providing an efficient economic environment for growth and prosperity. Although much of the empirical literature has focused on the positive relationship between economic freedom and economic growth (De Haan, Lundström, and Sturm 2006; Doucouliagos 2005; Faria and Montesinos 2009), a number of studies also provide evidence that economic freedom is a key determinant of income per capita across countries (Bennett et al. 2015; Cebula and Clark 2014; Cebula, Clark, and Mixon 2013; Easton and Walker 1997; Gwartney, Holcombe, and Lawson 2004) and subnational economies (Ashby, Bueno, and Martinez 2013; Basher and Lagerlof 2008; Wiseman and Young 2013).

Table 2 provides additional empirical evidence that subnational economic freedom is positively related to income per capita in North America by reporting the fixed effects estimates of equation (1) using LRGDPL as the measure of economic performance. Column 1 reports the results using the composite EFNA index. Columns 2, 3,
and 4 report results using each of the three economic freedom areas: size of government (EFNA1), distortionary taxation (EFNA2), and market freedom (EFNA3). Column 5 includes all three area measures simultaneously.

With one exception, all of the economic freedom variables enter positively and statistically significant at the 1 percent level throughout Table 2. Because the log of income per capita is used, the coefficients can be interpreted as semi-elasticities, but this does not allow
comparison of the magnitude of the partial effects of the independent variables. Among the freedom variables, EFNA and EFNA3 have the most economically significant partial correlation with the level of development, as a standard deviation increase in overall economic freedom and labor market freedom are both associated with a two-thirds standard deviation increase in LRGDPL. Meanwhile, standard deviation increases in EFNA1 and EFNA2 are associated with an approximately half and third standard deviation increase in income per capita, respectively. In column 5, EFNA1 and EFNA3 both enter positively and are statistically significant at the 1 percent level, while EFNA2 is not statistically significant. In this specification, standard deviation increases in the size of government and labor market freedom areas are associated with an approximately one-third and half standard deviation increase in income per capita, respectively.

Among the control variables, COLLEGE is positive and statistically significant at 10 percent or better in all but one specification, while MFG, DEP2LAB, and FEMALE are all negative and statistically significant in most specifications. The specifications in Table 2 jointly explain 69 to 76 percent of the variation in income per capita.

Economic Freedom and Unemployment

Economic freedom has also been linked to positive labor market outcomes. Studies by Heller and Stephenson (2014) and Garrett and Rhine (2011) find that state-level economic freedom is associated with lower unemployment and greater employment growth, respectively, while Feldmann (2007) and Stansel (2013) find country-level and U.S. metro area economic freedom to be associated with lower unemployment, respectively. Hall et al. (2013) find that state-level economic freedom is positively associated with entrepreneurial start-ups, which create new jobs for the economy.

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8Standardized coefficients are reported in the text for comparability of the magnitudes of the partial effects of the independent variables. Standardized coefficients ($\bar{\beta}$) are computed as follows: $\bar{\beta} = \beta \times \left( \frac{S_{EF}}{s_{perf}} \right)$, where $\beta$ and $s_{EF}$ denote the partial effect and standard deviation of the economic freedom variable, and $s_{perf}$ represents that standard deviation of the economic performance measure.
Economic Freedom and Performance

Table 3 provides additional empirical evidence that economic freedom exerts a positive impact on labor market outcomes by reporting the fixed effects estimates of equation (1) using the unemployment rate as the measure of economic performance. As with Table 2, the economic freedom variables enter one at a time in columns 1 to 4, while column 5 controls simultaneously for all three area measures.

All of the economic freedom variables enter negatively and statistically significant at the 1 percent level when controlled for individually. Economically, EFNA3 has the strongest correlation

<table>
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<td>EFNA</td>
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Notes: Fully robust standard errors in parentheses; $p^{***} < 0.01$; $p^{**} < 0.05$; $p^* < 0.1$. 

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among the freedom variables, as a standard deviation increase in labor market freedom is associated with a 1.34 standard deviation decline in the unemployment rate. The specification that uses EFNA3 jointly explains 53 percent of the variation in the unemployment rate. The composite economic freedom index also exhibits an economically strong correlation, as a standard deviation increase in EFNA is associated with a 0.93 standard deviation decrease in the unemployment rate.

Meanwhile, standard deviation increases in EFNA1 and EFNA2 are associated with approximately half a standard deviation drop in the unemployment rate. In column 5, EFNA1 and EFNA3 both enter negatively and significantly significant at the 10 percent level or better. A standard deviation increase in the size of government area is associated with one-fifth standard deviation decline in UNEMPLOY, while a standard deviation increase in labor market freedom is associated with a nearly three-fifths standard deviation decline in the unemployment rate, all else equal. EFNA2 is not statistically significant.

Among the control variables, COLLEGE is negative and LPOPDEN positive when statistically significant at 10 percent or better. MFG and DEP2LAB are both statistically significant in more than half of the specifications, but the sign of their coefficient is inconsistent. FEMALE is never statistically significant. The specifications in Table 3 jointly explain 18 to 54 percent of the variation in the unemployment rate. The specifications that account for labor market freedom explain much more of the variation in the unemployment rate than those that do not.

**Economic Freedom and Income Inequality**

Much less is known about the relationship between economic freedom and inequality. Economic theory does not provide clear guidance on the anticipated qualitative relationship between economic freedom and income inequality. This is largely attributable to the fact that economic freedom is a complex concept that is affected by a number of institutions and policies that may exert a heterogeneous impact on the distribution of income.

Using a static two-agent framework, Berggren (1999) attempts to show that economic freedom impacts inequality through a variety of institutions and policies, but concludes that, with the exception of
government redistribution, which reduces both economic freedom and inequality, the impact of economic freedom on inequality through its various channels is theoretically ambiguous. Berggren’s theoretical result that government redistribution reduces inequality depends, however, on two simplifying assumptions that may not hold in practice.

First, it assumes redistribution from high to low income individuals. The rent-seeking literature suggests that income is often redistributed in practice to middle- or high-income groups, resulting in a positive or ambiguous effect on inequality (Olson 1982; Vedder and Gallaway 1986). Second, it assumes that changes in fiscal policy do not affect economic performance, which is contrary to the so-called equity-efficiency hypothesis (Okun 1975; Vedder 2006; Vedder and Gallaway 1999). If redistribution negatively affects economic performance, it is possible that lower income persons are disproportionately impacted such that measured inequality does not change or rises if the relative loss of market income is not offset by income transfers. Vedder, Gallaway, and Sollars (1988) and Acemoglu et al. (2013) discuss additional theoretical reasons why redistribution may not reduce inequality. Even the conclusion that government redistribution reduces inequality is not theoretically generalizable, although Clark and Lawson (2008) and Scully (2002) find empirical evidence that progressive tax and redistribution policies are associated with less inequality.

Bergh and Nilsson (2010) offer further theoretical insights on how the five main areas of economic freedom are expected to impact inequality, suggesting that sound monetary policy is associated with less inequality, while limited government and private property rights are associated with more inequality. However, their empirical results concerning the relationships between these three areas of economic freedom and inequality are statistically insignificant. Easterly (2007) argues that one channel through which extreme inequality is perpetuated is through weak private property rights and rule of law, an argument further developed and supported with empirical evidence by Bennett and Nikolaev (2015a).

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9 The Fraser Institute’s Economic Freedom of the World index includes five main areas of economic freedom: (1) size of government; (2) legal institutions and property rights; (3) sound money; (4) international trade freedom; and (5) freedom from regulation of business, credit, and labor markets (Gwartney, Lawson, and Hall 2013).
Bergh and Nilsson (2010) suggest that standard international trade theory predicts that freedom to trade internationally is associated with more and less inequality in economically developed and underdeveloped nations, respectively. Their empirical findings, which are based on a sample of predominantly middle- and high-income countries, suggest that international trade freedom is positively associated with inequality. Berggren (1999) finds a negative relationship between trade openness and inequality. Bergh and Nilsson are agnostic on the anticipated relationship between the regulatory environment and inequality, but find a positive empirical relationship. Blythe, Hopkin, and Werfel (2012) and Hopkin and Blythe (2012) argue that there is a parabolic relationship between regulatory freedom and income inequality, and provide empirical evidence supporting their hypothesis.10

Given that the relationship between economic freedom and inequality is theoretically ambiguous, several studies have examined the relationship between the two variables empirically, although the results have been mixed. Berggren (1999), Clark and Lawson (2008), and Scully (2002) find that country-level economic freedom is associated with less income inequality, while Bergh and Nilsson (2010) find a positive relationship between the two variables. Carter (2006) provides evidence of a U-shaped relationship between the economic freedom and inequality across a set of developed nations. Bennett and Nikolaev (2015b) find that the inconsistent results from cross-country analyses are attributable to a number of factors such as the econometric specification, measure of inequality, sample of countries, and/or time period used, suggesting that none of the empirical cross-country results from the literature are robust.

The above-referenced studies have all examined the relationship between economic freedom and inequality across countries. Several studies have also examined the relationship between subnational economic freedom, as measured by the Frasier Institute’s EFNA index, and inequality across the 50 U.S. states. Each of these studies has used a different econometric approach, but the results have been more consistent than those of the cross-country studies, in general pointing toward a negative relationship between economic freedom and inequality.

10Regulation from freedom is used as a proxy for economic efficiency, and the authors argue that low and high levels of efficiency are associated with high levels of inequality, but intermediate levels of efficiency are associated with low levels of efficiency.
As discussed above, the EFNA index only accounts for heterogeneity among states in the size of government, distortionary taxation, and labor market policies (Stansel and McMahon 2013). National institutions measured by the Economic Freedom of the World index, such as the regulatory environment, monetary policy, international trade policy, and private property rights, are relatively homogenous among states. These macro-level institutions may nonetheless influence the distribution of income at the subnational level such that results from state-level analyses are not directly comparable to those from country-level analyses because the margins at which institutions are operating at the subnational and national level differ. Nonetheless, the findings of subnational studies do provide additional evidence to help enhance our understanding of the relationship between economic freedom and inequality.

Using income quintile ratios as their measure of inequality, Ashby and Sobel (2008) find that EFNA in 1980 and changes in EFNA over the 1980–2003 period are both associated with less income inequality in the latter period.\(^{11}\) They also find that lower minimum wage levels and lower tax burdens are the best policies for reducing inequality. Using panel data over the period 1979–2004, Bennett and Vedder (2013) find that increases in EFNA are associated with lower levels of income inequality, as measured by the Gini coefficient. They also provide empirical evidence of an inverted U-shaped relationship between EFNA and inequality, opposite Carter’s (2006) findings of a U-shaped cross-national economic freedom-inequality curve.\(^ {12}\)

Aspergis, Dincer, and Payne (2014: 74) analyze the relationship between EFNA and state-level income inequality using time-series techniques, finding that economic freedom has a long-run negative impact on inequality, but indicate that Granger causality is bidirectional. Regarding the latter result, they suggest that it is “possible for a state to get caught in a vicious circle of high income inequality and

\(^{11}\)Carter (2006) criticized Berggren (1999) for including both the level and change in economic freedom as regressors in the latter’s inequality model, suggesting that the results could be interpreted as a distributed lag model such that the short- and long-run effects of economic freedom on inequality are negative and positive, respectively. A similar argument could be made about the results of Ashby and Sobel (2008), although the point estimates suggest that both the short- and long-run effects of EFNA on inequality are negative.\(^ {12}\)The measures of national and subnational economic freedom differ substantially, providing one possible explanation for these conflicting results.
heavy redistribution” given that “high income inequality may cause states to implement redistributive policies causing economic freedom to decline. As economic freedom declines, income inequality rises even more.”13 Although they do not explicitly consider the impact of EFNA on relative inequality, Compton, Giedeman, and Hoover (2014) find that increases in EFNA exert a positive and significant impact on the growth rates of mean household income for the top four quintiles, and a positive but insignificant impact on the bottom income quintile.

Next, additional empirical evidence on the relationship between subnational economic freedom and income inequality is presented. Table 4 reports fixed effects estimates of equation (1), where GINI is the measure of economic performance. Among the economic freedom variables, EFNA, EFNA1, and EFNA3 are statistically significant at the 5 percent level or better, and each enters positively. The 0.65 coefficient estimate for EFNA suggests that a standard deviation increase in economic freedom is associated with an approximately quarter standard deviation increase in GINI, all else equal. The coefficient estimate of 0.38 for EFNA1 suggests that a standard deviation in the size of government area is associated with less than a fifth standard deviation increase in GINI, while the coefficient estimate of 0.853 for EFNA3 suggests that a standard deviation increase in labor market freedom is associated with less than a half standard deviation increase in GINI.

As with Tables 2 and 3, column 5 of Table 4 controls simultaneously for the potential impact of EFNA1, EFNA2, and EFNA3 on inequality. EFNA2 has a coefficient of −0.39 and is statistically significant at the 1 percent level, suggesting that a standard deviation increase in freedom from discriminatory taxation is associated with a 0.15 standard deviation decrease in GINI. EFNA3 has a coefficient of 1.04 and is statistically significant at the 1 percent level, suggesting that a standard deviation increase in labor market freedom is associated with an approximately half standard deviation increase in GINI. It is interesting to note that the partial effects of EFNA2 and EFNA3 are both economically and statistically stronger than the effects when each variable entered individually. EFNA1 remains positive but is not statistically significant in column 5.

13Murphy (2015) argues that high levels of inequality may lead policymakers to intervene in the market to reduce inequality, reducing economic freedom.
TABLE 4
Fixed Effects Estimates: GINI Is the Dependent Variable

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R² 0.718 0.71 0.702 0.741 0.751

Observations 400 400 400 400 400
Cross-Sections 60 60 60 60 60

Notes: Fully robust standard errors in parentheses; p*** < 0.01; p** < 0.05; p* < 0.1.

Conclusion

This article builds on previous collaborative work with Richard Vedder and examines how subnational economic freedom impacts economic performance in North America. Specifically, it uses fixed effects regressions to estimate the partial effects of various economic freedom measures on income per capita, the unemployment rate, and relative income inequality across the 50 U.S. states and
10 Canadian provinces. It is the first study that I am aware of that pools data for the 50 U.S. states and 10 Canadian provinces to further account for heterogeneity in economic freedom and its potential impact on subnational economic performance in North America.

The results largely corroborate existing evidence that economic freedom is associated with higher levels of income per capita and lower rates of unemployment. However, they also suggest that economic freedom is associated with modestly more income inequality, a result that is somewhat at odds with the small body of literature that has in general found a negative relationship between subnational economic freedom and income inequality in the United States (Aspergis, Dincer, and Payne 2014; Ashby and Sobel 2008; Bennett and Vedder 2013). This seeming contradiction is unsurprising given the ambiguity of theory concerning the relationship between the two variables and the inconclusiveness of cross-country empirical work (Bennett and Nikolaev 2015b). One possible explanation for the differing qualitative result is that the current study pools data for the United States and Canadian provinces. There is greater variance in inequality and less variance in economic freedom among the states than the provinces.

The economic freedom of North America index is also decomposed to examine how its individual areas affect economic performance. When controlled for individually, all three areas are statistically associated with higher levels of income per capita and lower rates of unemployment. Controlling for all three measures simultaneously, both the limited government and labor market freedom areas are statistically associated with more income per capita, but only labor market freedom is statistically associated with lower unemployment rates. Both the limited government and labor market freedom areas are statistically associated with higher income inequality when controlled for individually, but the distortionary taxation and labor market freedom areas are statistically associated with less inequality in the specification that accounts for all three areas in the same regression.

While the results obtained in this article provide some insight for economic policymakers, they are preliminary and should be interpreted with caution for several reasons. First are the potential problems of omitted variables and multicollinearity, which would bias the coefficients and inflate the standard errors. As with all empirical studies, the choice of control variables is limited by data availability, particularly given that the current study pools data for the United States
and Canadian provinces. The independent variables included in the study are among those routinely included in empirical analyses of economic performance, and they jointly explain a significant amount of the variation in the three measures of economic performance. Any potential bias attributable to omitted variables is therefore relatively small. The risk of multicollinearity is minimized by excluding the alternative measures of economic performance, which are fairly well correlated, as independent variables.

Next is the potential for reverse causality if one or more of the independent variables is endogenous. Aspergis, Dincer, and Payne (2014) provide evidence of bidirectional causality between economic freedom and inequality across the U.S. states, and Murphy (2015) suggests the inequality may hamper economic freedom. While it is recognized that endogeneity may be an issue with the empirical specifications employed here, it is beyond the scope of this article to attempt to establish causality econometrically. That task, however, would be a fruitful area for future research. Disentangling the potential direct and indirect effects of economic freedom on the various measures of economic performance is also a good avenue for future research.

References


Book Reviews

The Social Order of the Underworld: How Prison Gangs Govern the American Penal System
David Skarbek

“In short, in California, the question of how to manage prisons has resolved itself into the question of how to manage prison gangs.” With these introductory words from researcher John J. DiIulio Jr., David Skarbek’s *The Social Order of the Underworld* establishes its premise: the inmates run the asylum, and America’s criminal justice and prison policies are largely responsible.

Skarbek, currently a lecturer in Political Economy at King’s College London, goes where few economists have gone: into American prisons to learn how they are governed. Due to the limited availability of data about the inner workings of prison populations, as well as the illicit nature of much of what his study describes, Skarbek primarily relies on court records, firsthand accounts, and documentaries, along with whatever data he was able to glean from state governments and extant sociological research. The end result is a meticulously researched and persuasive argument for rejecting previous explanations for the rise of prison gangs in favor of a rational choice conception of prison governance.

Rational choice theory consists of two main ideas: people are subjectively self-interested and people adjust their behavior according to
a rational cost-benefit analysis. Indeed, Skarbek notes, the incentives for prisoners to behave rationally in response to institutional changes are even greater than for free men, as the cost of deviation for a prisoner is often swiftly imposed and brutal.

The American prison system denies many high-demand goods and services to prisoners. In turn, the provision of those goods and services is inevitably a profitable endeavor in a system that lacks the legal authority to employ particularly brutal means of suppressing it (Skarbek rather blithely makes the point that prison gangs do not appear to be a problem in countries where the punishment for inmate gang affiliation is death). The result is a massive black market for drugs and amenities like cell phones. In addition, and perhaps more interesting, are the governance institutions that emerge to resolve disputes, establish order, and facilitate commerce. Gangs have proven to be an effective means of meeting these demands.

It wasn’t always so. Skarbek walks us through the 20th century of California prisons, beginning in the 1940s and ’50s when prison gangs did not exist. With such relatively small, homogeneous prisoner populations, a norm-based approach—the “Convict Code”—was sufficient to bind the inmates to a central governance philosophy. Inmates knew each other, spoke the same language, often grew up in the same towns, and could adjudicate disputes and mete out discipline among the population as a whole.

But when the prison population exploded over the next generation, the norm-based system broke down. The prison population grew more diverse ethnically and linguistically, it grew younger, but most of all it grew fast. It became impossible for inmates to know everyone else on the yard. The younger inmates bucked the system. Language and cultural barriers raised the cost of information transmission, and the drug war filled the prisons with drug addicts demanding a fix and having the connections to get it.

Into this chaos stepped the prison gangs. Race became the lowest cost means of identifying and categorizing people. The Mexican Mafia formed to protect Mexican inmates from the predations of white and black inmates, and other race-centric gangs quickly formed in response to stanch the violence and chaos.

By applying his rational choice theory of governance, Skarbek’s conclusion is that we’d be foolish to expect otherwise. With the
largest prison population in the world, overstuffed prisons, and prison guards who are incapable of stemming the tide of market forces within the population, what enforced order could we reasonably expect to find? But it is still a type of order. Prison gangs employ written constitutions, political structures that can be reorganized after institutional breakdowns, personnel departments capable of running intrusive background checks through contraband cellphones, and complex systems of dispute resolution.

Prison violence has dropped over the past two decades as gang influence has spread. While some of that can be attributed to better penological practices, the gangs clearly deserve some credit. The species of order that the gangs have wrought might be distasteful or downright horrifying—which Skarbek emphasizes through a series of anecdotal vignettes about various aspects of prisoner justice—but it is undeniably effective relative to the chaos it replaced.

Importantly, the impact of these developments is not limited to life within the prison walls. Prison gangs now control large swaths of the street-level drug market. It may seem counterintuitive that men behind bars should be governing large organizations on the outside, but Skarbek has an answer.

A man who spends his life dealing drugs or enforcing gang edicts can reasonably expect to spend time in prison. And once a person enters the prison system, the typical methods of street protection are no longer available. A new prisoner is alone, without confidantes, without weapons, without credibility in the eyes of the powers that be inside the prison walls. Such inmates are vulnerable, and outstanding debts or feuds with gang leadership can be fatal. In other words, you’ve got to make good with the gang on the outside if you want the gang to help you on the inside. Thus prison gangs wield considerable influence over street gangs and leverage that influence into untold millions of dollars in “taxes.” In a witty reference to Mancur Olson’s “stationary bandits” theory of the origins of government, Skarbek has called these gangs “incarcerated bandits.”

So, accepting Skarbek’s well-made explanatory argument, what can be done to counter the influence of prison gangs?

To that end, Skarbek rejects traditional “supply-side” arguments for breaking the influence of gangs. Contraband interdiction operations, attempts to segregate high-ranking gang members from the
rank and file, and even transferring gang members to different states have all failed. There are nearly as many contraband cell phones in California prisons as there are inmates. Drug smuggling is rampant. When gang leaders are segregated or shipped out, the gang ideology simply metastasizes wherever they land.

It is the demand, Skarbek argues, that must be addressed. He offers several solutions, some much more feasible than others. While Skarbek is careful to argue that the incarceration boom generated by the drug war can’t entirely be blamed for the rise of prison gangs, the implications compelled by his argument are plain. Drastically increasing the number of prisons in order to achieve pre-gang prison populations would, on Skarbek’s reasoning, negate gang influence. So, too, would allowing inmates more licit access to the high-demand contraband for which they rely on gangs. Skarbek even floats the idea of prison voucher systems to allow convicts some say in where they do their time (which would in turn spur competition between prisons). But when confronted with the political reality of the American criminal justice system, the path to neutering gang influence, both in prisons and on the street, seems clear.

There are roughly 15 times as many prisoners in California today as there were in 1950. Even a state with as much love for public spending as California isn’t going to go the route of prison vouchers. Similarly, “more amenities and more choice for convicted murderers and rapists” is unlikely to appear on campaign buttons any time soon.

The simple fact is that, in order to counter the influence of prison gangs, prison populations have to shrink. America’s fetish for the incarceration of nonviolent offenders and mandatory minimum sentences are obvious places to start cutting, and it seems the American political establishment may finally be waking up to that fact. If gangs of murderers and thieves can respond rationally to institutional realities, so can policymakers.

Policy prescriptions aside, David Skarbek has produced a must-read piece of research for anyone remotely interested in the American criminal justice system. His well-argued economic analysis makes it difficult to subscribe to any other theory of what we’re seeing in the prison system and why.

Adam Bates
Cato Institute
The Prize: Who’s in Charge of America’s Schools?
Dale Rusakoff

On September 24, 2010, Facebook founder Mark Zuckerberg went on the *The Oprah Winfrey Show* with New Jersey Governor Chris Christie and Newark Mayor Cory Booker. There, Zuckerberg announced that he was pledging $100 million dollars toward the public school system in Newark, NJ. Zuckerberg, Christie, and Booker’s collective aim was to bring public school teachers’ contracts more in line with typical private sector contracts in order to incentivize good performance and penalize bad performance.

Five years later, the Newark school system had little to show for Zuckerberg’s (and other venture philanthropists’) donations. The number of charters did expand, but any moderate success they achieved was offset by a diminution of quality in the public schools. Public school teachers’ contracts went through minor changes by way of some increased accountability measures, but their structure (and bloat) remained largely intact. Cory Booker left for the U.S. Senate, replaced as mayor by Ras Baraka, who won largely due to his opposition to Booker’s educational plan. Chris Christie lost interest and turned his attention toward the U.S. presidency. Zuckerberg moved on to other philanthropic pursuits.

Dale Rusakoff tells the story of what happened between the Oprah announcement and late 2014 in her book *The Prize*. “The prize” refers to a name that, according to Rusakoff, “numerous politicians had actually taken to calling the district budget,” which was built “around unions and large public bureaucracies [that reformers like Zuckerberg believed] were themselves an obstacle to learning.” Make positive change in Newark, the idea was, and you can prove that positive change can happen anywhere. Zuckerberg and others were moved by the idea that, to see the kind of dynamic results his own company and those like it achieved, the school system had to allow for innovative schools—charters—that were largely free to operate the way they saw fit, and that teacher contracts had to be written in a way that would attract talented teachers and dissuade bad teachers. But, as *The Prize* demonstrates, Zuckerberg and other reformers may have overestimated how amenable the public education system would be to their desired reforms.
The story focuses primarily on Christie and Booker’s attempts (as partly funded by Zuckerberg and other venture philanthropists) to bring charter schools into Newark. In 2011, Chris Christie brought in Christopher Cerf as New Jersey’s education commissioner with a plan to “drastically reduce the size of the centralized school district and create a ‘portfolio’ of schools.” Cory Booker also appointed Cami Anderson as the superintendent of Newark Public Schools in order to bring stronger accountability measures to the public schools. A significant part of Rusakoff’s account involves the conflicts of interest that emerged between Cerf and Anderson, where Cerf’s expansion of more charters in Newark generally necessitated consolidations and closings of public schools. While Rusakoff acknowledges that charters tended to outperform public schools, the zero-sum nature of the battle for resources between charter and public schools strengthened the anti-charter sentiment among many Newark residents. As Rusakoff puts it, “Charters were under the control of Cerf, not Anderson. They drew from the same student population as the school districts, but the state alone decided whether and how much they would expand and whether to close those that performed poorly. The local superintendent’s only role was to react.” Charters and (traditional) public schools became engaged in a zero-sum struggle over “the prize,” igniting political tensions between entrenched special interests on both sides.

Another focus of Rusakoff’s story is the reformers’ desire to revamp the existing structure of public school teachers’ contracts. When Zuckerberg gave $100 million dollars to the Newark schools, he wanted much of that money to go toward reorganizing teacher contracts to more closely resemble contracts in the private sector, with things like generous merit bonuses to high achieving teachers and promotions based on something other than seniority and educational attainment. This meant often-tense negotiations with the powerful Newark Teachers Union. With a good amount of Zuckerberg’s donation paying for those merit bonuses and retroactive raises for teachers, the resulting changes in teachers’ contracts were marginal. The union agreed to some of the changes, “but the fine print in the contracts revealed that many of the more costly perks remained securely in place, such as fifteen paid sick days and three personal days” per teacher per academic year. Despite the money spent in this area, political inertia limited the amount of change even Zuckerberg’s money could affect.
Rusakoff does an admirable job refraining from editorializing, especially in an area as politicized as education reform. She doesn’t appear to have a particular dog in the fight other than to tell a story about a particularly large and intricate reform effort. But it is probably unavoidable that she couches her story in some sort of interpretive framework. In her book, Rusakoff profiles two sets of reformers: one, the Zuckerberg camp, which sought to create a more flexible education system with some modicum of choice, and the other (like future Newark mayor Ras Baraka), which wanted to change the public school system in ways that worked within the existing structure of public schools. Rusakoff suggests that these reformers “shared the same end goal—to reverse the damaging tide of poverty that robbed the poorest children of their potential. The big difference lay in where they started: from the top down or the bottom up.”

There is some truth to this depiction, but it is also a bit misleading. Christie, Booker, and Zuckerberg’s plan was “top down” in the sense that decisions were made largely politically about which charters would operate and where, with little effort to get input from the localities that would be affected. The other set of reformers, including Cory Booker’s ultimate successor, Ras Baraka, did seek to bring some control of the public schools to a more local level; for instance, by allowing schools to determine how their budgets would be allocated and the ability to hire the teachers they (rather than the district office) chose.

Yet, Rusakoff’s depiction of the battle between top-down and bottom-up reformers has its limits. True, decisions about which charters would operate and where is ultimately a political decision, but charters are also an attempt at decentralization in that charter schools are afforded the kind of latitude to make their own decisions (about such things as hiring and instructional approach) that public schools are not. Conversely, those reformers working within the public school system may have the goal of restoring more decisions to the local level, but doing so means working within a very centralized decision-making system.

It is my hope that classically liberal and libertarian readers come away with an appreciation of just how limited charter schools are as any kind of market-based reform; decisions from who will be granted charters to where charters will operate to when a charter will be revoked are all firmly political decisions. Charters may be a way to
allow some flexibility within a public school system, but, as *The Prize* demonstrates, charters are quite dependent on politics, and this may affect both how they are perceived in the communities they serve and how effective they can truly be.

Whatever its very mild limitations, *The Prize* is a fascinating and informative account of the political machinations of education reform. The attempt to remake the Newark, New Jersey, public school system provides an excellent case study of how and why educational reform efforts often fail.

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**Disinherited: How Washington Is Betraying America’s Young**  
Diana Furchtgott-Roth and Jared Meyer  

Diana Furchtgott-Roth and Jared Meyer have written a concise book that is important for both the young and old. *Disinherited: How Washington is Betraying America’s Young* is a clear and effective case for an end to Washington’s harmful policies holding back America’s youth. The authors pleasingly weave rational, empirical evidence with the first-hand testimonies of a number of American youths whose lives have been negatively affected by Washington’s failed policies. This blend of cold, hard facts and eye-opening personal accounts makes for an enlightening and well-grounded read.

As a former chief economist at the U.S. Department of Labor, Furchtgott-Roth naturally has a firm command of the facts and statistics. I recently saw Meyer speak on a panel at the American Action Forum, and he likewise impressed me with his command of the material. Furchtgott-Roth and Meyer tackle the issues that inhibit the young from achieving their full potential, including health care, primary and secondary schooling, college debt, occupational licensing, and the minimum wage.

The authors first address the problem of the young paying for the services of the old through entitlement programs such as Social Security and Medicare. The authors point out that “Social Security and Medicare account for 40 percent of federal spending in 2014 and that young people and their employers continue to pay a combined
15.3 percent of their paychecks into the programs, funding current retirees with contributions the young will probably never see back.” The authors argue that, if nothing changes, Social Security funds will run out by 2033 and Medicare funds will be gone by 2030. In this current situation, young people may never see a return on their mandatory investment.

Next, Furchtgott-Roth and Meyer reveal the problem of the decreasing quality of primary and secondary education as a result of teachers unions and inadequate graduation requirements. The authors argue that our public education system favors older and even inexperienced teachers over younger and potentially innovative teachers because many teachers are unionized. In New York, it took an average of 502 days and $216,588 to go through the hearings required to fire a single unionized teacher.

Another problem with public education detailed in *Disinherited* are graduation requirements that consist of community service hours and hours of attendance rather than a set of final exams like many European countries require. The authors claim that such final exams make it easier to demonstrate what students have learned.

Furchtgott-Roth and Meyer also argue that too many young people are encouraged by high school counselors to attend a four-year college or university when they might be better suited to a cheaper and more practical community college. The price of college has risen drastically over the years, and overall student loan debt has increased by 325 percent since 2004. Students owe an average of $29,400 in student debt. The authors claim that this college debt delays many young people from pursuing many of the dreams they might have after graduation. The book tells the story of Annie Johnson, who graduated from a small liberal arts college after going to community college for two years. Annie is $70,000 dollars in debt and says that she sees “a quality of life difference between myself and my friends who do not have student loan debt.”

Moreover, for those youth who do not want to go to college but would rather open a hair salon or become an interior designer, they still have to obtain licenses from the government that can require hundreds of dollars and hundreds of hours to complete. In another personal story detailed in *Disinherited*, Becky Maples wanted to become a cosmetologist but was prevented from doing so because the required license cost hundreds and took over a year to obtain.
Now, Becky is working in a factory instead of fulfilling her dream of becoming a cosmetologist.

The last and most significant argument for Washington’s abandonment of American youth is the raising of the minimum wage. Many cities and states, including Seattle and Hawaii, have recently raised their hourly minimum wage to $10.10 or higher. Furchtgott-Roth and Meyer explain that this will push young and low-skilled workers out of the workforce because employers will not be able to afford them. Many young people use minimum wage jobs to gain their first professional work experience and climb the professional ladder.

Internships are also vital toward developing professionally. The authors claim that the prohibition of unpaid internships diminishes the number of internships available for students to use to gain work experience. Having put together a panel about the ban on volunteering at for-profit institutions, I can confirm that the authors have hit the nail on the head. This practice prevents young people from taking the necessary steps toward professional skill development and career advancement.

Throughout *Disinherited*, Furchtgott-Roth and Meyer suggest logical solutions to these important and pressing problems. The work complements Furchtgott-Roth’s other books addressing different employment demographics and issues. The entire book is easily understandable and, with its short length, absolutely merits a read. Young and old alike should open their eyes to the critical problems the youth of this nation are facing. *Disinherited* is an important step in turning the tide against Washington’s failed policies.

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**Wealth, Poverty and Politics: An International Perspective**
Thomas Sowell

In 2015, Thomas Sowell turned 85 and published a new book. In it, he interjects himself foursquare into the debate over income inequality. He has written on the topic before, but never so comprehensively. His analysis of the topic is systematic and cuts across the main lines of the current debate.
Sowell divides the factors influencing economic growth and income into four broad categories: geographic, cultural, social, and political. He then examines each set of factors in separate chapters. He rejects determinism. People can surmount the circumstances into which they are born, but the geographic, cultural, social, and political hands that individuals are dealt in life can advantage or disadvantage them.

If there is one overriding theme, it is the rejection of randomness in outcomes. Not one of the causal factors he considers is remotely random in its distribution among groups, countries, or continents now or in the past. To expect, then, a random distribution of income in society is absurd in his view.

Second, there is a brute fact of human history. “Poverty—genuine poverty—has been the lot of most of the human race for most of the existence of the species.” It is economic growth and the accumulation of wealth that must be explained. Poverty is the default. Once a society, or subset, experiences economic growth, there will be income inequality.

I follow Sowell’s development of his thesis by beginning with geography. “Geography is not egalitarian,” he begins the account. The Sahara is the largest desert in the world, and has for centuries isolated the blacks of sub-Saharan Africa to the south. Additionally, there is a dearth of good harbors. Both facts have limited contact with the outside world. Consequently, sub-Saharan Africa has been blocked from trade in goods and ideas. Both are detriments to economic development.

Africa has a number of great rivers, but most are not navigable for their entire length and at all times of the year. Africa is twice as large as Europe, but the African coastline is shorter than Europe’s. The European coastline has many twists and turns, creating many natural harbors. By contrast, Africa’s coastline is smooth with few good natural harbors. Europe was thus advantaged for trade and exposure to the world, as Africa was disadvantaged.

Within Europe, the rivers of the west, east, and south are quite different and contributed differently to economic development. The rivers of Western Europe flow into seas warmed by the Gulf Stream, which proved to be an advantage. It is one exploited mightily by the Hansa beginning in the 12th century and lasting for 500 years. It began as an association of north German merchants and evolved into a league of cities. At its peak, it reached 200 cities. It was
The rivers of Eastern Europe are subject to freezing. When they flow, it is often into lakes or inland seas rather than the sea. Rivers flowing into the Arctic, as is true for Russian rivers, are not as advantageous for trade as ones flowing into the Atlantic or Pacific.

The rivers of Southern Europe are fewer in number and adversely affected by the region’s climate. The winter sees torrential downpours and the heat and dryness of the summer can dry up the rivers.

The United States is a story of a continent blessed by great navigable rivers (e.g., the Mississippi and Hudson). The Great Lakes are a tremendous advantage. And there are numerous natural harbors on both the Atlantic and Pacific coasts. Once there were inhabitants with the skills to take advantage of these natural assets, the United States was in a geographically advantaged position. But this is despite natural geographical disadvantages. For instance, more tornadoes occur in the United States than in all other countries of the world combined. With geography as other factors, it is a balance of advantages and disadvantages influencing growth opportunities.

There are many other geographic issues. Mountain communities tend to be poor and isolated, and that is generally true around the world. (Switzerland is a notable exception.) America has its Appalachia and there are similar stories around the world. As already noted, climate is an important factor. Climate and soil influence agriculture. “Civilization dates from the beginning of agriculture, and with it the beginning of cities.” Different continents and subcontinents vary greatly in the distribution of rich soil and, hence, crop yields. Rainfall patterns interact with soil condition. These have contributed to a different pace of economic development.

Animals play a significant role. The geography of the Western Hemisphere greatly resembles that of Western Europe, but the indigenous cultures of the two regions were quite different. Beasts of burden, like horses and oxen, were totally absent in the Western Hemisphere. These animals are critical for transportation, farming, and warfare. Again, exploitation of America’s natural advantages awaited the arrival of Europeans with their animals.

Sowell deals with culture in many of his previous works, and it plays a critical role in his this book. “Cultures include not only customs, values and attitudes, but also skills and talents that more
directly affect economic outcomes, and which economists call human capital.” Human capital plays a major role in Sowell’s analysis, but he makes it clear that he does not equate it to formal schooling. Here, as in other works, he details how cultures differ radically and are transmitted around the world by migration.

For instance, Germans have excelled in the building of pianos and have done so in Australia, France, Russia, and England. They were world leaders in cameras and optical instruments. They also excelled in military skills, from Roman times to the present, in countries around the world, including in America’s revolution and two world wars. Germans also placed great emphasis on education and brought universities to wherever they migrated. Even when distinctly minority populations, they frequently were the majority of students. And they staffed the universities.

Jews, Lebanese, Chinese, and other groups flourished in commerce wherever they migrated, even though they were often subject to discrimination—sometimes very harsh discriminatory measures. Each of these groups, and all others, has its own sets of human capital, which result in radically different outcomes from the population as a whole.

People imitate the success of others, in effect borrowing from other cultures. Western civilization replaced Roman numerals with Arabic (really Indian) numerals because “Arabic numerals were simply better—not merely different, as multiculturalists might say—when it came to mathematical operations.” Attempts to change culture by force largely fail, however. I would add that includes attempts to force change in a country’s political culture, as when the West attempts to spread democracy where it is unknown and the necessary institutions lacking.

Countries that are culturally receptive to new ideas gain and prosper. That receptivity can change. One thousand years ago, the Muslim world was very receptive and prospered. Today, the lack of cultural receptivity can be gauged by the number of books translated annually in the Arab world of 300 million people. “Spain translates more books into Spanish annually than the Arabs have translated into Arabic in a thousand years.” (It is not entirely correct to equate Arab with Muslim.)

The discussion of culture and progress goes to the heart of the book. Sowell enumerates important cultural traits, which are not evenly distributed among peoples. Trust and honesty are very important for social and economic cooperation. Russia is a nation richly
endowed in natural resources, but it has suffered from systemic corruption. John Stuart Mill commented on the “venality” of Russian functionaries. Germans were hired because of their honesty. The problem continued under the Soviet Union and besets Russia today. Russia ranks 136th out of 175 countries for corruption in the 2014 Corruption Perception Index produced by Transparency International (175th being most corrupt).

By contrast, a high degree of trust has enabled groups like Hasidic Jews, the Marwaris of India, Chinese, and Lebanese to transact among themselves operating on trust. They have prospered as a consequence.

Education as a cultural value strengthens groups having it. Again, it is not evenly distributed across cultures. It is sometimes strongly present among ethnic minorities, such as the Tamils in Sri Lanka, who then go on to success in many endeavors. Again, this is true even when the minorities are discriminated against, as were the Tamils (leading to a long civil war).

Attitudes toward work and progress are very important. Many contemporary sources noted the poor work ethic of antebellum Southern whites. These included General Robert E. Lee. In 1860, the South had 40 percent of the dairy cows but produced only 20 percent of the butter and just 1 percent of the cheese in the country. Southern dairy farmers were just outproduced by immigrant German farmers in Wisconsin.

Sowell recounts other such stories from around the world. There were vast differences in productivity among Chinese, Indian, and Malays in the 1940s on rubber plantations. Somewhat differently, the newly educated in parts of the Third World are adverse to any physical labor, including working with their hands, even as an engineer. Such attitudes are an obstacle to economic advancement and exemplify why more formal education need not equate to greater human capital.

Social factors encompass many variables. Just to sample, the way children are raised varies greatly from group to group. Children in families in which both parents are professionals hear on average 2,100 words spoken per hour. Children of working class parents hear 1,200 words per hour, while children of parents on welfare hear only 600 words per hour. It is difficult to imagine how these differences can be overcome by any simple policy. The life outcomes for these children, including their incomes, will be
different. And those differences are not the result of any discrimination.

Sowell’s discussion of mental capabilities is one of his most important. It is a touchy subject, which he handles well. How different groups perform on mental tests varies and has changed over time for these groups. He follows the ups and downs of groups in part by the makeup of a set of highly prestigious high schools: Stuyvesant, Bronx Science, and Brooklyn Tech in New York City. At one time, Jews were heavily overrepresented. Today it is Asian Americans. Just to understand how elite these schools are, more graduates from Brooklyn Tech have been admitted to M.I.T. than from any other high school in the country.

The story of blacks is central to the discussion. In 1938, the proportion of blacks attending Stuyvesant was almost as high as the proportion of blacks in the city’s population. But 1938 was the last year that was true. Over a period of 33 years, the proportion of blacks attending Stuyvesant fell to one-tenth the figure. That fact, and many others he adduces in the book, makes a mockery of appeals to racism or the legacy of slavery. “Back in 1938, both racism and poverty were worse than in later times, and the blacks of 1938 were generations closer to slavery. Clearly something else was happening.”

That something is culture, and he argues that the culture within black communities has changed for the worse. To argue this, he takes the reader back to the immediate aftermath of the Civil War. Many white educators went to the South to educate black youth. Many of the teachers came from New England and modeled the schools on New England academies. They openly proclaimed a goal of displacing the Southern culture that blacks had absorbed. The most famous school founded was Dunbar High School in Washington, D.C., in 1870. It produced a stunning output of students who went on to the very best colleges in America.

Dunbar produced a large number of “firsts,” including the first black federal judge, the first black general, the first black Cabinet member, etc. In short, the legacy of these Northern white educators was one of educational excellence in which the performance of black students equaled or exceeded that of whites.

The social climate changed in the 1960s. Later in the book, Sowell attributes that to the Great Society and welfare. The result is a pattern in which even the black children of professional, middle class parents fall behind their white counterparts academically. These results come
out of a study of Shaker Heights, Ohio. The researcher found that black students had an aversion to “acting white.” White behavior most singled out was “talking proper.” “Culture matters” is how Sowell concludes the discussion. We return to this issue at the end.

Sowell’s discussion of IQ tests is based on the work of Professor James R. Flynn. I met Flynn in Sowell’s house a few years ago and can report he is one of the most interesting scholars I have ever met. His work called into question whether IQ tests measure some fixed, genetic endowment. They clearly do not. Sowell has long been a skeptic of genetic explanations for differences in intelligence and achievements. Flynn’s work helped confirm Sowell’s skepticism.

Political factors can aid or block economic advancement. Too often, it is the latter. In his chapter on the topic, Sowell considers the complexity of politics. He begins with the emergence of nations. It is a very complex subject, but his account does not persuade me. He suggests political and economic benefits from larger political units. The political benefits of a larger political unit include a better ability to protect its citizens. The economic benefits a larger market that enables producers to capture the benefits of the economy of scale. But surely the latter benefit accrues from trade, and in medieval times there was trade aplenty. As already noted, there was the Hanseatic League in the North. There was also the trade carried out by the merchants of Venice and Genoa.

He describes the process of creating a nation-state as a “spontaneous coalescing of smaller groupings into successively larger groupings.” I find that an ironic description of the lust for power that propelled European princes and kings to create the great nation-states through warfare and conquest. And nowhere are the costs of that endeavor calculated.

Moreover, the account overlooks the great economic progress by small political units of medieval Europe that preceded the nation-states. There were great advances in agricultural technique and invention beginning in the 12th century. There were great advances in energy production, again due to innovation and invention. The waterwheel was just one. Windmills were another. As previously mentioned, Europe was endowed with animals. The invention of the horseshoe and stirrup greatly improved the efficiency and uses for horses. There were important developments in ships, critical for trade and defense. The list goes on and on. It was a period of
Schumpeterian growth largely without the aid or protection of the modern nation-state (Mokyr 1990).

In the larger scheme of the book, the rise of the nation-state is not a critical issue. But I believe that Sowell, very uncharacteristically, attributes to a grand political enterprise what was the product of private initiatives of ordinary people like “peasants, wheelwrights, masons, silversmiths, miners, and monks” (Mokyr 1990: 56).

The greatest external threat to Europe in the Middle Ages came from the Ottomans. They were only decisively defeated at the Battle of Lepanto, October 7, 1571, by the ships of the Holy League created by Pope Pius V. The great Western empire of Spain under Philip II was occupied fighting elsewhere. He contributed galleys, but the leadership was under John of Austria. Aside from Spain, the League utilized galleys from Venice, Genoa, the Pope, Savoy, and the Knights of Malta. Superior seamanship and technology propelled a great naval victory over an empire by the decentralized states of Europe (Stark 2014: 294–96).

Just a few years earlier, the Ottomans had sent a fleet of 193 vessels with an army of 50,000 aboard to invade the island of Malta. No European state came to the island’s defense. Instead, the defense was led by 500 Knights of Malta and supported by 1,000 mercenaries and 3,000 locals with no military training. The Turks suffered a resounding defeat at the hands of a private military organization. No European state supplied the defense by which they justified their existence (Stark 2014: 292–94). As with the Hansa, private action and city-states proved to be effective.

The main role of large states in Sowell’s account is the conquest of smaller states, of which European colonialism is illustrative. In the tragic case of India when the British departed, they left behind multi-ethnic states racked by frequent internal conflicts.

The later problem is dealt with under the politics of polarization. Multiethnic societies have the economic potential for lagging groups to imitate the more productive groups. From a political perspective, however, income differences are fodder for politicians to exploit. They depict the lagging group, often the majority, as victims of the successful minority group. That has played out in countries like Malaysia, Sri Lanka, and around the world. Asian immigrants, especially Chinese, have routinely been discriminated against and even terrorized. That was true in America in the 19th century.
Chinese and other Asians continue to be discriminated against in American university admissions. The rationale given for that discrimination reminds one of the rationale for discrimination against Jews not so long ago. These successful immigrant groups are hated for their success, even today, even in America.

Turning to home and contemporary times, Sowell identifies the welfare state as the scourge of black Americans. He takes on the legacy of slavery argument directly and effectively. Black economic performance was better in the 1930s, '40s, and '50s, and going into the 1960s than today. Blacks of those generations were closer to the experience of slavery than blacks today, subject to more discrimination then than now, and poorer then than now.

Pick an economic or social metric, and Sowell has probably addressed it. In 1948, black youth unemployment was just under 10 percent, compared to today’s rate of around 40 percent. The legacy of slavery, or the minimum wage? The proportion of black children raised by single mothers escalated after the passage of the Great Society.

Blacks have made great economic progress both absolutely and relative to whites, but the progress slowed after the welfare programs of the 1960s. Sowell dates that progress beginning with the Emancipation Proclamation of 1863. By 1900, the majority of blacks were literate, a milestone that would not be reached for the populations for some countries, even European ones (e.g., Romania) until decades later.

After the 1960s, some social metrics indicate retrogression. Prominent among these is the decline of the two-parent families and all the consequences that has. The homicide rate among blacks, which had declined substantially in the 1950s, rose sharply during the 1960s. That consequence is with us today in many urban areas.

One of the most important contributions of this book is to clarify that none of what we witness in inner cities today is intrinsically tied to race. The exact same phenomena exist among the white underclass in England. Sowell relies on the work of Dr. Theodore Dalrymple in Life at the Bottom. And the cause is the same, the rise of the welfare state. Immigrant groups are less prone to rely on welfare and consequently soon outperform native groups economically and socially. That leads to resentment against the successful newcomers.

Political entrepreneurs convince those lagging behind that they are victims. That leads to “lashing out” at others. Sowell identifies the ghetto riots of the 1960s as lashing out. Three of the most chilling pages are devoted to evidence that organized lashing out by blacks against
whites has been going on for years. He warns that could lead to a white backlash against blacks. He observes that what a “race riot” meant a hundred years ago was exactly attacks on blacks by majority whites.

To me, it is curious that he does not focus more on such factors as the rule of law and what I will call the institutions of liberty, like private property. He discusses law and order, but that is a subset of the rule of law. Many authoritarian societies have law and order, but a weak rule of law. Pipes (1999) argues that property is the source of freedom. The institutions of liberty are not evenly distributed among countries. Some countries and continents lacking natural advantages, like Africa, have also been deficient in such institutions. A fuller consideration of the institutions of liberty would only strengthen Sowell’s argument.

The book finishes with a lengthy chapter on “Implications and Prospects” (plus a shorter Epilogue) He draws many lessons from history, the first of which is that “there is no such thing as ‘the’ reason” for differences in income and wealth. The factors influencing these variables are too numerous to catalog. Sowell doesn’t believe that he has identified all of them. Differences in human capital (broadly defined) among real people by themselves ensure different economic outcomes. More spending on public education will not eliminate these, or even necessarily reduce the differences.

As he has in prior works, Sowell notes that how one measures income alters the measures of income inequality to a substantial degree. He presents numerous examples of how nonrandom outcomes are in life, such as in PGA tournaments, Grand Slam titles in tennis, spelling bees, etc. All of which is to buttress the conclusion that disparities in outcomes are an inevitable feature of life and evidence no discrimination. My favorite in that vein is that men are struck by lightning several times more often than women. That gives new meaning to disparate impact.

In many ways, Wealth, Poverty and Politics summarizes themes of earlier books by Sowell. But it also represents a significant extension and restatement of some of these. Sowell takes on icons like Paul Krugman and Joseph Stiglitz. There is a fascinating story of Milton Friedman and Rose Director (later Rose Director Friedman) dancing away the night in a Harlem nightclub, which makes an important point. If anything, Sowell is becoming more pessimistic about America’s future, and that is the one respect in which I hope he is wrong. Nonetheless, the book is a tour de force, and I highly recommend it.

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References


**The Conservative Heart: How to Build a Fairer, Happier, and More Prosperous America**

Arthur C. Brooks


Conservatives and libertarians have the answers for many of America’s problems today, says Arthur Brooks, president of the American Enterprise Institute (AEI), especially the problems of poverty. So why is our message so unpopular with so many? It’s because, Brooks argues, we lead with our heads, not with our hearts—we do a terrible job packaging our message. He’s right. We need to take people as they are, not as the purely rational creatures we’d like them to be.

After tracing his own idiosyncratic odyssey before he reached AEI—among other things, a college dropout, an itinerant French hornist with the City Orchestra of Barcelona, and a chaired Syracuse University professor of economics—Brooks begins his argument by noting the paradox his travels have brought before him: In recent decades the free market has lifted millions out of poverty in the developing world, yet poverty persists in America despite a half-century War on Poverty. Worse still, since the Great Recession, even the American middle class feels left behind.

So with the failure of the liberal solutions that have dominated our politics for decades, Brooks asks: “Why aren’t Americans turning to conservatives for better solutions? Simple: People don’t think conservatives care.” And he has the polls to prove it.
In fact, this book is rich with social science data supporting his central thesis, that if we want to start winning—especially for the poor, the book’s particular focus—we’ve got to learn to speak in a way that persuades rather than turns off so many. And Brooks follows his own advice, offering up a wealth of stories about programs that succeed and those that don’t. Our sprawling entitlement programs, he writes, have succeeded only in making poverty marginally less painful, not less permanent: since the time the Great Society’s major policy pillars were put in place, the poverty rate had dropped by only 0.2 percent—a rounding error. But when we look to an array of private sector programs, we find the Doe Fund’s Harlem Center for Opportunity, for example, established by a husband and wife team dedicated to helping the most difficult cases, homeless ex-cons, get back on their feet through a sustained program dedicated to instilling the dignity of work. Since 1990, the program has helped more than 22,000 people reclaim their lives.

But what’s important to notice about the Doe Fund’s success is that it’s based on four moral principles. As Brooks describes them: People are assets, not liabilities; work is a blessing, not a punishment; values matter most in lifting people up; and help is important, but hope is essential. You don’t get that from a welfare check.

There is, in short, a better way to fight poverty. But it begins, Brookes concludes, with learning how to talk about “a conservative social justice agenda” in a way in which Americans will listen—or at least the “persuadables,” people who aren’t necessarily political but are open to practical solutions rooted in broadly held values. And that begins with a simple admonition: “Be a moralist.”

By way of example, Brooks uses the debate over raising the minimum wage. Progressive proponents go straight to moral arguments: The billionaires who own Wal-Mart, they contend, can afford to pay a few more dollars per hour to help struggling families. While a libertarian might urge simply getting rid of the minimum wage, even a less confrontational conservative would often begin with a lecture about pricing cheap labor out of the market. Which side, Brooks asks, comes across like it has the workers’ best interests at heart? Better it would be, he believes, to begin by saying that our society should make sure that people can support themselves and their families, so the real question is: “What is the best way to make work pay for folks at the bottom of the economic ladder?” Then point out that a
minimum wage hike would actually set back that goal. Finally, home in on the moral closer: “Increasing the minimum wage would give some people raises, but many of the most vulnerable would lose their jobs! We need to fight for those people.”

But Brooks wouldn’t even stop there. He would add this: “I have a better way to make work pay. Instead of raising the minimum wage, we should expand the Earned Income Tax Credit [EITC]. This supplements poor people’s paychecks without destroying their jobs. Poor Americans need and deserve this.” His focus is thus on work—and, more important, on the dignity of work, and on helping the young, especially, to get that first job and all the life-skills that go with it.

With his appeal to the EITC, therefore, Brooks is not a pure libertarian, whatever that means. He’d sooner see people with jobs, supplemented by public funds, than see them jobless but with a bigger welfare check. He would because his vision is driven by what he calls the “happiness portfolio,” the four values that are most correlated with the subject to which he has devoted much of his professional work—that is, happiness: faith, family, community, and meaningful work. Indeed, the value of work and the values work engenders run throughout this book.

Not surprisingly, the book leaves a number of issues unresolved. Taking not only people as they are but society today as it is, Brooks would not undo the social safety net, for example, citing no less than Hayek and Reagan for that, though he would redo substantial parts of it, like Obamacare. In so holding, he seems a bit too quick to say that voluntary charity cannot do the job, even if he does add, again citing Hayek and Reagan, that “a real social safety net is one of the great achievements of our free market system.” Then again, he proposes relocation vouchers to help the long-term unemployed; like the countless government job-training programs we see today, such proposals have a way of taking on a life of their own. More generally, distinguishing the truly from the less needy has ever been a problem—and more so when it’s the responsibility of government.

But Brooks does not set out to solve every problem. The one on which he does focus, our too often self-defeating rhetoric, is worth our attention.

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Our Kids: The American Dream in Crisis
Robert Putnam

The late economist Arthur Okun, perhaps best known for creating the first version of the Misery Index—a shorthand for assessing just how dissatisfied people ought to be with the economy—wrote an influential paper for the Brookings Institution in 1975 titled “Equality and Efficiency: The Big Tradeoff.” Okun’s premise was that democracies suffer a tension under capitalism: the promise of political and social egalitarianism is undermined by “gaping disparities in economic well-being.”

To soften resistance for his redistributionist remedy, he proposed a thought experiment he called “the leaky bucket”—a welfare transfer analogy that acknowledges inherent waste. He used the experiment to pose the question: What percentage of inefficiency (leaking water) is acceptable to achieve the gains in equality we seek?

Of course, Okun’s tradeoff framed the problem to serve his solutions, presuming that conjuring the will to pay the price for income equality is the only real barrier to achieving a more widely shared prosperity. It’s as if equality and efficiency outcomes were governed by two competing levers that each society could adjust, constrained only by competing interests and political will, to fine-tune their own optimal combination.

Harvard sociologist Robert Putnam, author of the best-selling Bowling Alone, doubles down on this view of the world in his newest book, Our Kids: The American Dream in Crisis, in which he claims that Americans have a choice to make. We can make collective government investments to lift up poor kids today or endure untenable levels of inequality in the near future.

Pairing life stories of pseudonymous subjects with several decades worth of data, Putnam argues that income inequality is the canary in the coal mine alerting us to the more serious problem lurking beneath our public debates: inequality of opportunity. He points out that Americans have historically been disinclined to begrudge others their success so long as everyone enjoys an equal chance to achieve it. That sets the stage for the key question Our Kids attempts to answer: “Do youth today coming from different social and economic backgrounds in fact have roughly equal life chances, and has that changed in recent decades?”
He argues that intergenerational opportunities in America have been skewing more and more in favor of those with the means and the education to seize them, and that this divergence presents both a crisis of social conscience and a challenge to the legitimacy of the American Dream.

According to Putnam, the problem is not simply a problem of rich and poor, nor, as he presents in the data, a racial or ethnic problem. It is really a problem of class, which he defines by level of education. He reviews an array of empirical findings related to families, schooling, parenting, and communities and presents a series of widening gaps over time between those with college degrees and those without. For example, since the 1970s, the difference in the median ages of first-time mothers has grown between educated and less educated women due mostly to women with college degrees now waiting until well after college to have children. But it also reveals those without college degrees tend to start sooner than they used to.

Even family dinners are skewing according to this same pattern. “From the mid-1970s to the early 1990s . . . family dinners became rarer in all social echelons,” but since then, he reports, that trend leveled off for households led by college-educated parents, and only continued downward for high school–only educated families.

Comparative historical data is missing for some of the other evidence Putnam includes, but the disparities revealed help to tell the story of class differences today. For example, today’s better-educated parents, it turns out, are more likely to have better social networks with larger sets of both strong and weak ties to others. Weak ties are particularly valuable for economic opportunities like finding a new job. It also means more-educated parents might have a wider network of professional acquaintances through which they can, for example, identify potential mentoring opportunities for their children.

Virtually all of the findings he points to are correlations that render his final chapter, “What is to be done?,” a bit impotent. He concedes that “the link from income inequality to opportunity inequality is not simple and instantaneous” and suggests that time lags mean we won’t really know if his thesis is right until the next generation has reached midcareer and participated in more surveys. That’s a big problem if you want to advance a credible policy solution today based on this research.
Putnam is not fazed. He says his criterion for taking action “is not whether any given proposal has already proven effective, but whether the evidence suggests that it has promise.” He then makes what is perhaps his most passionate appeal for reform: more funding for extracurricular activities in schools, with an emphasis on team sports like football.

It’s odd that, after 200-plus pages of research findings and anecdotes all used to prove a nationwide crisis, he would call for more football as a key part of the solution. It’s perhaps as perplexing as bemoaning a nationwide decline in bowling league participation.

Still, some of the findings are truly alarming and deserve our attention. For example, he highlights a 2000 follow-up report on the National Education Longitudinal Study that showed that high-scoring 8th grade test-takers from families in the bottom quartile of income turned out to be slightly less likely to go to college than their low-scoring counterparts from the top quartile.

So, what, then, is to be done? Putnam’s Harvard colleague Steven Pinker makes an apt observation in his 2002 book The Blank Slate—which served, in part, as a call for social scientists to acknowledge advances in cognitive science when studying and accounting for human behavior—that when it comes to public policy, scientists of all stripes are probably better at identifying tradeoffs than they are at resolving them.

What, for example, can government do about declining rates of family dinners? Income-transfer programs and work-hours legislation might sound like part of a solution, but consider the case of Stephanie, a high school dropout and one of the subjects Putnam’s team studied. Her family does not eat dinner together, not because she is not home to make a meal, but because, as she explains, that’s simply not their way of doing things. “We’re not a sit-down-and-eat family,” she said. Her daughter, Lauren, added, “When it’s time to eat, it’s whoever wants to eat. It wasn’t everybody sit at the table, like a party or something.”

Perhaps, as a microtest for a publicly funded education campaign designed to encourage families to adopt the practice, Putnam could tell Stephanie that successful families tend to eat dinner together. Of course, to be fair to Stephanie, Putnam would have to clarify that he can’t say whether the act of having the family dinner itself will make any difference. He only knows that those who tend to achieve more also tend to practice that particular habit. In other words, if
Stephanie wants to increase the odds of her children capitalizing on future opportunities, Putnam can’t claim with any scientific authority that family dinners will contribute to her success.

Pinker warns that “the belief that human tastes are reversible cultural preferences” has led to poor social planning at best and, at worst, “some of the greatest atrocities in history.” Putnam’s *Our Kids* presents a lot of data worth reviewing, and some telling stories about life in America today, but his call to action flows not from evidence, but from hope.

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THE FED’S HUBRIS

After 1987, the Fed saw itself as the guardian of financial stability in the sense of averting steep falls in stock market indices. By the late 1990s, this had evolved into a doctrine that preventing asset price bubbles was not the Fed’s business. This doctrine played an important part in causing the financial crisis, since it led the Fed to ignore the increasing danger signs in the housing market and instead to congratulate itself on having achieved a great moderation in inflation and growth.

Today, central banks appear—and may even believe themselves—to be “the only game in town.” But this is an illusion. Imperceptibly, they have been reverting to the role they last played in the 1940s, as vehicles for financing government deficits at artificially low interest rates.

The issue is not whether or not inflation targets are to be joined by additional targets. The issue is whether or not the era of central bank independence is coming to an end. If it is, we shall look back on the idea of central banks as the only game in town as hubris comparable with the idea of a great moderation—to be followed equally quickly by nemesis.

—Niall Ferguson
