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Welfare State Myths and Measurement

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Abstract

Myths about welfare states and their effects on economic development abound. In this paper, we rebut three central, related myths: that the current American welfare state is unusually small, that the United States has always been a welfare state laggard, and that the welfare state undermines productivity and economic growth. Very reasonable changes in measurement reveal that all three beliefs are untrue. The American welfare state appears relatively small only by restricting the comparison to rich nations, ignoring employer-provided health insurance, pensions, and public education, and measuring size relative to GDP, rather than on a real per capita basis. The inclusion of public education turns the United States from a laggard to a leader in welfare state development. Including public education and public health as well as cash benefits suggests that welfare state programs as a whole enhance the productivity of capitalism and spur economic development.

I. Introduction

Many believe that the current American welfare state is unusually small, that in comparison to European nations, the United States has always been a welfare state laggard, and that the welfare state undermines productivity and economic growth. This paper argues that these inter-related myths rely upon peculiar measures. Very reasonable changes in *measurement* refute all three of these commonly held beliefs. Even though most people would agree that public education and public health are critical parts of the welfare state, their effects are not included in analyses of the effects of the welfare state on economic growth. While the inclusion of employer provided benefits is more controversial among economists, we argue that the controversy is semantic. Including employer provided health and retirement benefits increases the size of the American welfare state by 50%. Far from being a laggard, the United States was the world leader in universal provision of public elementary and secondary education—very likely the most productive part of the welfare state—for most of the nineteenth and twentieth century. The truth is that the socialized programs that constitute the welfare state—public education and health and social insurance—enhance the productivity of capitalism and spur economic development.

In the second section of the paper, we discuss measurement, including the definition and boundary of the welfare state and the sources of our data. The third, fourth, and fifth sections show, respectively, that the contemporary American welfare state is not unusually small, that for most of its history, the United States was a leader in the provision of mass public education, and that welfare states enrich rather than impoverish nations. The last section summarizes and concludes with some policy implications for the United States, other rich nations, and developing nations.

II. Measurement: definitions, boundaries, and data

All wealthy nations, including the West European nations and the United States, are welfare states—that is, capitalist with large, selective doses of socialism. Rather than socializing the "means of production," welfare states have socialized, through provision, subsidization, and regulation, selective family functions and items of consumption—public assistance, health, education, and insurance—that promote economic security. Capitalism is, as its arch-enemy Marx said, "the most productive system known to mankind." But the "creative destruction," identified by Schumpeter as a critical source of this phenomenal productivity, also produces too much economic insecurity. A hallmark objective of welfare state institutions is, therefore, to reduce economic insecurity through the provision of programs such as education, health, social insurance, and other cash and near cash (food and housing) benefits. Education and health increase human capital, making citizens more capable of dealing with the economic insecurity produced by nature and by the market. Social and health insurance and public assistance also make citizens more secure by directly reducing the economic costs of insecurity.

Some government regulations, such as minimum wages, rent controls, and child support enforcement are also important ingredients of many modern welfare states. Achieving full employment through the use of Keynesian macroeconomic policies is also, for many, an essential welfare state objective. But regulation and macroeconomic policy are beyond the

scope of this paper. Our analysis is limited—with the exception of public health—to social welfare transfers.

Social welfare transfers in the form of education, health, social insurance, and cash and in-kind public assistance flow to citizens as a matter of law or entitlement and are paid for by other members of the community by law or requirement. Social welfare transfers are publicly provided, subsidized, or regulated goods that provide predominantly private benefits. For example, though the public at large benefits from the education of children via externalities, the children who get the schooling and their families reap the largest benefits. Public social welfare transfers constitute the largest share of government expenditures in all rich nations—ranging from a high of 90 percent in Sweden to a low of 55 percent in the United States (Osberg, Smeeding, and Schwabish, 2004). As argued below, the US figure vastly understates total US social welfare transfers.

Most comparative welfare state scholarship of social welfare transfers focuses on only one part of social welfare transfers—public cash transfers. Our work also includes education, near cash benefits, employer-provided health and pension benefits, and in the discussion of the productivity of the welfare state, public health in the definition and measurement of effects of the welfare state.

Including public education as a welfare state program is the most consequential and is—or should be—the least controversial departure from conventional practice in crossnational analyses. Even though most quantitative cross-national comparative welfare state analyses omit education, the conceptual definitions of welfare states put forth by the leading scholars in the field include education. Within economics, the authoritative collection of classic readings on the welfare state designed for graduate students, Economic Theory and the Welfare State (2001), edited by Nicholas Barr and overseen by the leading economists in the world, has a large section on education, consistent with its operational definition of the welfare state: "For the purposes of these volumes the term 'welfare state' is used for the state's activities in three broad areas: income transfers, health and health care, and education." In perhaps the most influential book on the welfare state in the sociology and political science literatures, The Three Worlds of Welfare Capitalism (1990), Gosta Esping-Anderson first defines the welfare state as: "... state responsibility for securing some basic modicum of welfare for its citizens." He goes on to say, "What then constitutes salient dimensions of welfare state stratification? ... The education system is an obvious and much studied instance." Finally, education is included in many country-specific welfare state studies (Lampman, 1984; Richard Titmus, 1958; John Glennister, 1992; John Hills, 2004) and in the path breaking comparative work by Lindert (2004). In theory, then, public education has always been included as a welfare state program; it is only omitted in most cross-national research in practice.

Some public health expenditures, such as salaries for public health doctors and costs of facilities, inoculations, and other aspects of the public health system are counted along with health insurance as part of total public health expenditures. Public health spending also involves vast public expenditures on clean water and sanitation that are not counted as part of the welfare state and a vast body of regulations that protect from disease. Sanitation, clean water, inoculations, and other aspects of public health clearly provide large private as well as large public benefits. We do not attempt to estimate the full costs of all public health programs, but discuss the importance of public health to productivity and economic growth

in section 5. It is worth noting that if all public health expenditures were counted as part of welfare state program expenditures, welfare states in rich nations would almost certainly look even more alike than depicted below in Figure 2.

Our analysis of welfare state spending also departs from most previous analyses by including employer-provided health insurance and pension benefits and tax expenditures. Tax expenditures (savings in income tax payments) and tax-subsidized, employer-provided benefits are alternative, less progressive means of achieving some of the social goals of direct government spending—among them, providing health insurance, housing, and income security in old age. As such, including them gives a more accurate description of the true social costs of alternative welfare states.

Should including tax expenditures or employer-provided benefits in the measurement of welfare states be controversial? Again, we argue no. Most economists treat tax expenditures as economically equivalent to explicit budget expenditures and would therefore agree that, at a minimum, the tax-subsidized portion of employer-provided health insurance (between one-fifth and one-quarter of the total) should be included as welfare state expenditures (Adema and Ladaique, 2005). Although a case can be made for counting only the tax-subsidized portion on the grounds that state funding differs from funding stimulated and regulated by the state, some economists and political scientists—whose practice and rationale we follow—argue for including the entire amount of employer expenditures. These benefits are publicly subsidized and regulated. Moreover, employer-provided health insurance involves socialization of the risk of ill health and redistribution from the healthy to the sick. While this occurs at the firm rather than the national level, failing to include these benefits underestimates the share of the population with insurance and mischaracterizes the US welfare state by obscuring and minimizing how much it spends on subsidized health insurance. Most important, including the full expenditures for employer-provided health insurance comes much closer than including only the tax-subsidized portion to measuring the real social cost of the American system of health insurance, that is to say the peculiar American welfare state version of health insurance—a staggering 17 percent of GDP!

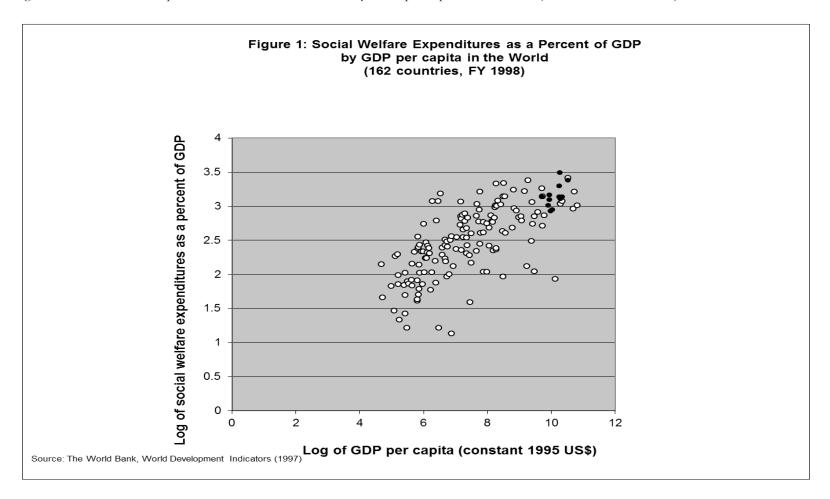
The case for including all of employers' spending for pensions, however, is weaker than the case for including all of their spending for health insurance. Health insurance, by its nature, redistributes from the healthy to the sick, yet employer-provided pensions may involve no interpersonal redistribution (other than the tax subsidy). This would be the case if, for example, the pension is a defined-contribution plan that involves private accounts and no spousal or survivor benefits. Unfortunately, we cannot distinguish between pensions that do and do not involve interpersonal transfers. At a minimum, the tax-subsidized portion of employer-provided pensions should also be included as a welfare state transfer. For simplicity, however, we calculate the size of welfare states in two ways—by counting either all or none of the employer-provided health and retirement benefits as social welfare transfers.

III. The American welfare state is not unusually small

Figure 1 displays the relationship between a country's income and the size of its welfare state. The most common measure of the size of a welfare state is a country's total social

¹ Social welfare expenditures are the sum of social security, health, and education spending. Expenditure data is taken from IMF Government Finance Statistics Yearbooks (1998–2006). The IMF provides social security, health, and education expenditures in local currency. Each expenditure is then divided by that country's

Figure 1: Social Welfare Expenditures as a Percent of GDP by GDP per capita in the World (162 countries, FY 1998)



welfare transfers as a share of its total annual income, or its gross domestic product (GDP). The size of welfare states is displayed from the bottom to top of the diagram; income per person is displayed from left to right. Both variables are logged. Each of the 162 dots in the figure represents a country and describes both the size of its welfare state and its average income per person. The poorest countries cluster in the bottom left hand corner of the diagram, while the richest countries cluster in the top right hand corner with the darkened dots representing the fourteen rich welfare state nations examined in this paper. Clearly, the richer the country, the greater the share of their income that citizens devote to welfare state transfers. (Three countries—Hong Kong, Singapore, and the United Arab Emirates—are outliers: very rich with relatively small welfare states. These exceptional nations have not been included in previous research on welfare states in rich nations and we leave it to future scholars to explain their exceptionalism.) The same pattern holds within the United States and Europe. The higher the income of states or countries, the greater the share of income that they devote to welfare state transfers (Chernick, 1998). Most important, in the international context of all nations, the size of the US welfare state does not stick out.

If the comparison is limited to rich nations, the US welfare state appears unusually small only if employer-provided benefits are not counted. When employer-provided benefits are counted, the United States does not appear unusually small. We show this in Figure 2, which depicts the overall size of welfare states as measured by social welfare transfers as a share of GDP in fourteen rich nations. The fourteen nations are grouped into five predominantly English-speaking nations (Australia, Canada, Ireland, the United Kingdom, and the United States), six continental European nations (Belgium, France, Germany, the Netherlands, Italy, and Spain), and three Scandinavian or Nordic nations (Finland, Norway, and Sweden) (Esping-Anderson, 1990; Kamerman and Kahn, 1978; and Wilensky and Lebeaux, 1965).

The first bars, which do not include employer-provided benefits, indicate that each of the countries spends a substantial fraction of its GDP on social welfare—from 17 percent to 38 percent. Not counting employer-provided benefits, the English-speaking nations spend the least—Ireland and the United States, the very least. The continental European nations spend substantially more, and the Scandinavian nations spend the most. These patterns are consistent with findings of other comparative studies (Kamerman and Kahn, 1978; Smeeding, O'Higgins, and Rainwater, 1990; Esping-Andersen, 1990; Smeeding, 2004).

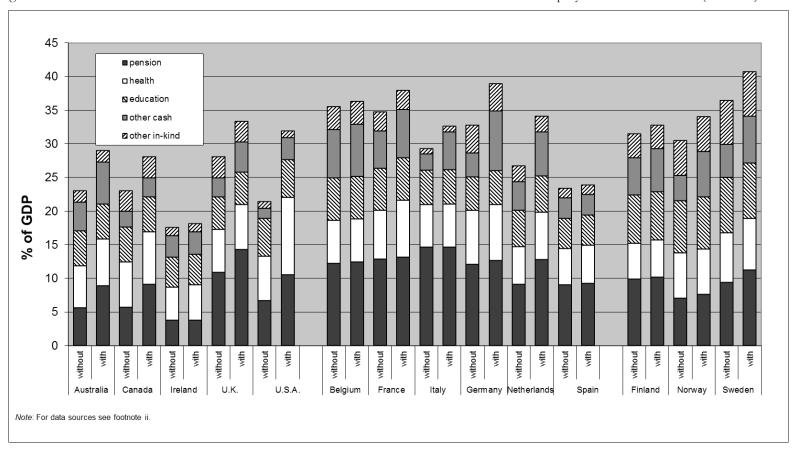
The second bar, which includes employer-provided benefits, increases the estimated size of the US welfare state by nearly 50 percent! More generally, including employer-provided benefits and tax expenditures substantially narrows cross-national differences in the size of welfare states because the English-speaking nations rely more on these than do most of the continental West European and Scandinavian countries.

Finally, when the size of a welfare state is measured by the total amount of social welfare transfers per person, the US welfare state is not—as it is often described—unusually small but, in reality, quite large. Although welfare state spending relative to GDP is a good indicator of the degree to which countries differ in the share of their incomes devoted to the welfare state, such differences are not a good indication of the absolute amounts of social

GDP for the year of expenditure and the quotients are summed. This is the total social welfare expenditure as a percentage of GDP for each country. GDP and per-capita GDP are taken from the World Bank World Development Indicators. All data are presented as natural logarithms.

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Figure 2: Social Welfare Transfers as a Percent of GDP in 14 Rich Nations: With and Without Employer-Provided Benefits (FY 2001)



welfare transfers per person in each country. The United States, as one of the richest nations, could be spending more in absolute terms and less as a percentage of income than other rich nations. Figure 3 presents our estimates of per capita social welfare transfers with and without including employer-provided benefits. The estimates are derived by first multiplying the estimates of social welfare expenditure (SWE) as a percent of GDP by the ratio of each country's per capita income to US per capita income and then multiplying the resulting ratio by US social welfare expenditures in dollars. Australia, for example, spent a slightly larger proportion of its GDP on SWE in 2001 than the US, as is illustrated in Figure 2, but its GDP then was only a bit above 60% of US GDP. Consequently, US per capita social welfare expenditures are much higher than Australia's. For those who believe that the absolute size of the US welfare state is small, the data in Figure 3 will be shocking and constitute a wake-up call. Real per capita social welfare spending in the United States is larger than that in almost all other countries! Even if employer-provided benefits and tax expenditures are excluded, the United States is still the third biggest spender on a per capita basis.

IV. The United States was a leader in providing mass public education

Historically, cash relief was the first welfare state program to develop, public education the second, and social insurance the last. The United States was a laggard in public relief and social insurance, but a leader in the provision of mass public education (Garfinkel, Rainwater, and Smeeding, 2010). Why the United States lagged in public relief and social insurance and led in education is a very interesting question, and one that is beyond the scope of this paper. (For a first attempt at explanation, see chapter six in Garfinkel, Rainwater, and Smeeding, 2010). Figure 4 puts together two different data sets compiled by Lindert and shows that contrary to the claim by Alesina and Glaser (2004) that the US has been a laggard in the provision of social welfare from the beginning of the 20th century, the inclusion of education means that the US is, in fact, one of the leaders.

Figures 5 and 6, using other data from Lindert, provide evidence that throughout most of the 19th and 20th centuries the United States was a leader in the provision of mass public education. Figure 5 displays the growth in public school enrollment rates in four-teen currently rich nations for three different years during the course of the nineteenth century—1830, 1870, and 1900. Enrollment rates are measured by the number of children enrolled in public elementary schools as a percentage of the population aged 5–14. (In a few instances, enrollments were available for only the sum of public plus private enrollments. By the end of the century, private enrollments were a small portion of the total in all rich nations.) For each country and each year, enrollment rates are displayed by bars. The longer the bar, the greater is the enrollment rate.

Figure 5 indicates that enrollment rates went up in all countries. In 1830, well under half of all students were enrolled in elementary school in most countries represented. By the end of the century in most countries, well over half were in school, and in the leading countries the share was close to 90 percent. Leadership changed over time. In 1830, though US enrollment rates were among the highest; Germany's (Prussia's) rates were even higher. But enrollment in Germany grew very little. By 1870, the United States and Canada were the new leaders and they maintained that status throughout the rest of the century.

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Figure 3: Social Welfare Transfers in US \$ Per Person in 14 Rich Nations: With and Without Employer-Provided Benefits (FY 2001)

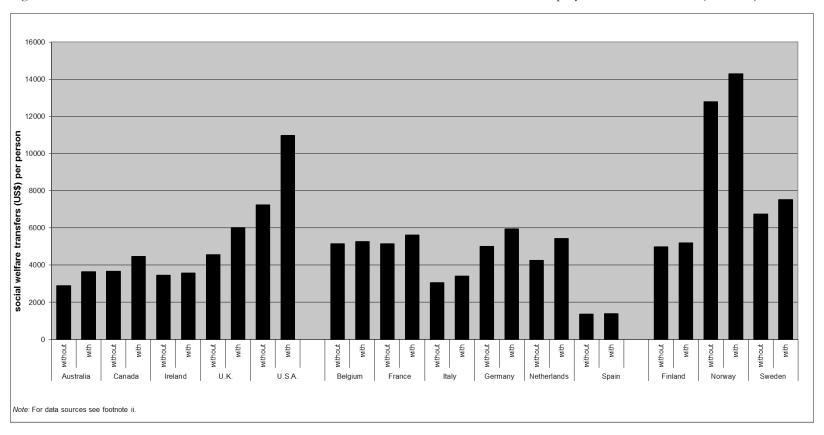
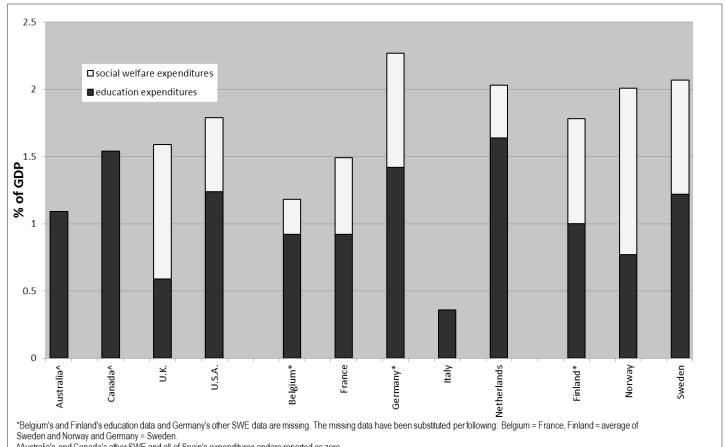


Figure 4: Gross Size of the U.S. and Other Welfare States (FY 1900)



Australia's and Canada's other SWE and all of Spain's expenditures andare reported as zero.
Sources: Lindert, P. REVISED DATA SET, "The Rise of Social Spending, 1880-1930"; Lindert, P. (2005) Growing public. Social spending and economic growth since the eighteenth century. Volume 2. Appendix C, Table C-3 Public expenditures, all levels of education, 1850-1910

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Figure 5: Percentage of Children Age 5–14 Enrolled in Public Primary Schools in 1830, 1870, and 1900 (a)

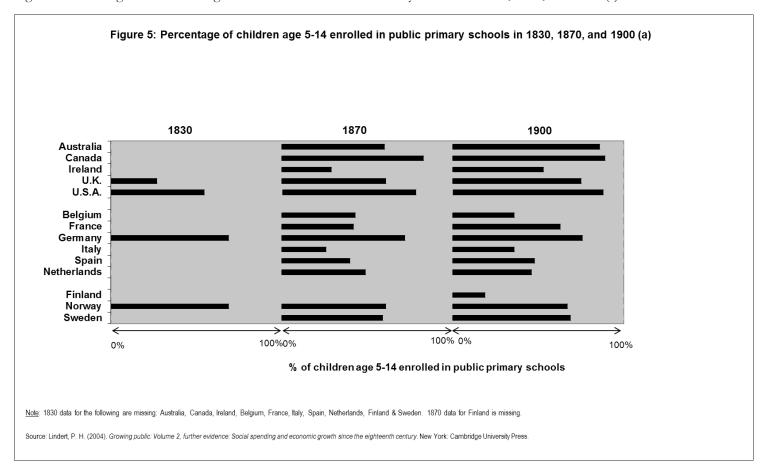
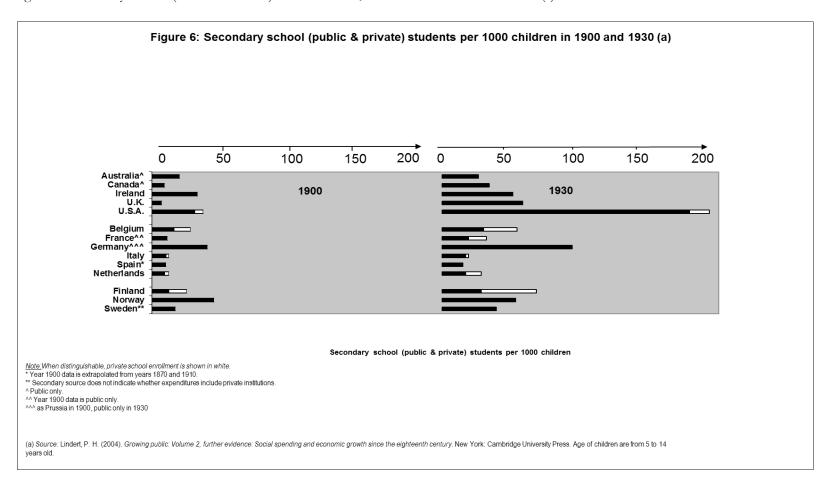


Figure 6: Secondary School (Public & Private) Students Per 1,000 Children in 1900 and 1930 (a)



At the beginning of the twentieth century, few children attended secondary or high schools and only a minuscule share attended college. Figure 6 depicts the growth in enrollment rates in secondary education between 1900 and 1930. The enrollment rate—the ratio of the number of secondary students to the number of children aged 5 to 14 in each country—is not an ideal measure, but it still accurately reflects underlying differences.² What is striking is that the US's rate is nearly double that of the runner up, Germany, and three to six times higher than most of the other countries. Similarly, the proportion of children graduating from colleges and universities is much higher in the United States than other nations during this period.

The wide American lead in secondary education persisted past mid-century, at least until 1970, but by century's end was much reduced. Most of the other countries had caught up fully or nearly, and Canada and Ireland were notably ahead. During the last quarter of the twentieth century, the United States also fell increasingly behind in early childhood education (Garfinkel, Rainwater, and Smeeding, 2010) and in higher education (Goldin and Katz, 2008). Figure 7 illustrates that the United States is now fast becoming a laggard in post-secondary degree completion. For the current 55–64 age cohort, the United States was the leader in post-secondary degrees of all kinds. But subsequent cohorts showed little if any gains in post secondary educational attainment, while several nations not only overtook, but now lead the United States in post-secondary educational attainment and others are rapidly catching up. The sole exception is Germany.

In sum, the United States went from being one of the world leaders in mass education at the beginning of the twentieth century to being, by mid-century, far and away, the world leader. During the last quarter of the twentieth century, however, the other rich nations substantially closed or eliminated the gap in secondary degree attainment and many other rich nations surged ahead in college enrollment and completion, as well as in early childhood education.

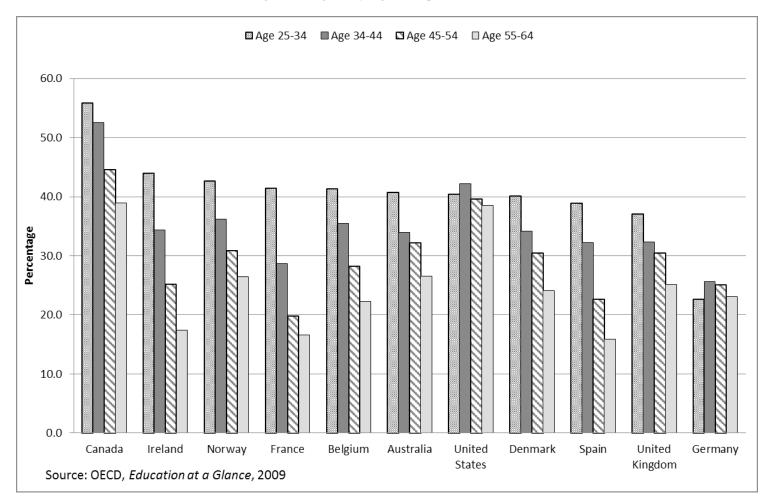
V. Welfare states enrich, not impoverish, nations

There are two reasons that many people believe welfare state programs might impoverish nations. First, economic theory and common sense alike clearly suggest that this is possible. Second, the slowdown in growth rates in rich nations generally, and particularly in Sweden, seems to provide empirical evidence that the possible is actually quite probable.

All public transfers and quasi-public transfers like employer-provided benefits have costs, including administrative/bureaucracy and financing costs. Taxes cannot be collected nor benefits distributed without administrative costs and incentives for changes in behavior. Our generation was taught by Arthur Okun, in *Equality and Efficiency: The Big Trade-off* (1975), to think of these costs as being akin to a leaky bucket. Okun, who chaired the Council of Economic Advisors under President Kennedy, was no opponent of the welfare state. Indeed, his famous Leaky Bucket Experiment was about a pure cash transfer, such as a Negative Income Tax, that did not exist, but was advocated by economists from the left and right. He was very explicit that he was not discussing public education or social insurance.

² It would be preferable to have the percentage of children of secondary school age, say 14–18 years old, who were enrolled in secondary schools, but these data are not available. Unless there were drastic changes in cohort sizes, however, using the 5–14-year-old group will accurately reflect differences in secondary enrollments across countries over time.

Figure 7: Percent of Adults with an Associate Degree or Higher, by Age Group



Implicit in the leaky budget experiment is the idea that there are no external benefits associated with the transfer. Cash transfers are assumed to be akin to water and do not extend beyond the recipient. Clearly this is not the case for education or health insurance, where external benefits are huge, as discussed below. Indeed, pure cash transfers probably have the least external benefits. But pure cash transfers are a minor part of all welfare state transfers in all rich nations. (See Figure 2.) That there are costs of transfers establishes yet again that there is no free lunch. It does not establish either that the costs exceed the benefits or that equality and efficiency cannot be achieved by many kinds of welfare state transfers. But the virtue of the Leaky Budget Experiment is that it helps one imagine that if we tried to transfer too much, the leaks in the bucket could become so big that more water would be lost in transit than transferred.

The slowdown in economic growth rates in the United States, Europe, and other rich nations in the last quarter of the 20th century led many to conclude that the costs of the welfare state were exceeding the benefits—indeed, that there was a crisis in the welfare state. However, three sets of measurements suggest welfare state programs taken as a whole enrich rather than impoverish nations. First, all modern rich nations have large welfare states. Second, economic growth rates of currently rich nations are larger than they were in the pre-welfare state past. Third, there is very strong evidence that public education and public health have led to enormous gains in productivity and economic well-being. The evidence for the effects of social insurance and other cash benefits on growth in GDP is weaker, but suggests small positive effects in the early development of social insurance and, at worst, small current negative effects. Two huge positives combined with even a small negative add up to a very big positive.

All rich nations have large welfare states

If the welfare state is a drag on nations, as the critics would have us believe, how is it, as depicted in Figure 1, that all rich nations have large welfare states? One explanation is that causation goes the other way. Rich nations have large welfare states because welfare state programs are a luxury good on which we spend more as we grow richer—a special case of Wagner's law of social spending. We buy the conventional textbook explanation for why capitalism makes countries rich and agree that rich countries can afford large welfare states, but if the welfare state undermines productivity and growth, large welfare state programs must eventually bring rich nations down. Indeed, the currently rich nations have only had large welfare states for the last 30 years, which is a relatively short period of time. Yet the currently rich nations have had larger welfare states and been richer than other not-so-rich nations for over 100 years. At the very least, the strong positive relationship between wealth and welfare state size should give pause to those who believe that the latter undermines the former.

Growth rates in rich nations are higher now than in the pre-welfare state past

Table 1 presents growth rates in per capita GDP for the fourteen rich nations for two recent time periods—1950 to 1973 and 1973 to 2010, the time periods examined by most welfare state scholarship—and for one long period before the large growth of the welfare state—

Table 1: Growth Rates in Per Capita GDP: 14 Currently Rich Nations in 3 Time Periods

1		
1870 - 1913		1973 - 2010
1.1		1.9
2.3		1.6
1.0		3.2
1.0	2.4	1.9
1.8	2.4	1.7
		1.8
		1.4
1.3	5.0	1.6
1.6	5.0	1.5
0.9	3.4	1.7
1.2	5.8	2.2
1.4		2.1
		2.5
1.5	3.1	1.7
	2.3 1.0 1.0 1.8 1.0 1.3 1.3 1.6 0.9 1.2	1.1 2.3 2.3 2.7 1.0 3.1 1.0 2.4 1.8 2.4 1.0 3.5 1.3 4.0 1.3 5.0 0.9 3.4 1.2 5.8 1.4 4.3 1.3 3.2

Source: Data for 1870–1913 and 1950–1973 retrieved from Maddison, A. (1996). Macro Econimic Accounts for European Countries. In B. van Ark & N. Crafts (Eds.), *Quantitative Aspects of Post-War European Economic Growth* (pp. 27-83). Cambridge, UK: Cambridge University Press.

Data for 1973–2010 calcuated based upon data retrieved from: The Maddison Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version.

1870 to 1913. (Although not shown in the table, economic growth prior to 1870, and during the American Civil War, World War I, the Great Depression, and World War II were all dramatically lower.) Except for Ireland, growth rates were higher in all countries (in fact, significantly higher in most), from 1950 to 1973 than they were from 1973 to 2010. The Swedish growth rates dropped by nearly half--from 3.1 to 1.7! This sharp drop in growth rates fueled the belief that the welfare state was strangling capitalism. (See Lindbeck, 1994, 1996, and 1997 and Freeman et al., 1997. For alternative views see Korpi, 1996; and Agell, 1996. For a more recent exchange, see Lindert, 2005, and comment by Bergh, 2006, and response by Lindert, 2006.)

The longer historical perspective provided by the data for 1870 to 1913 indicates that growth rates for the 1950 to 1973 period were unusually high. A country-by-country comparison indicates that while growth was substantially higher in most countries between 1950 and 1973, as compared to the post-1973 period, growth rates were dramatically higher in all countries in the 1950 to 1973 period than they were in 1870 to 1913. Most important, except for Canada, Germany, and the US, all of the currently rich nations have higher growth rates in the large welfare state era (1973 to 2001) than in the era that predates the large welfare state (1870 to 1913). In the US and Germany the difference is trivial.

Of course, many other factors besides social welfare spending have changed in the past 150 years. But, as we have seen, welfare state spending is now very large relative to the total production of goods and services in all advanced industrialized nations. If such spending had large adverse effects, it is doubtful that growth rates would have been so large in the

last 30 years. The crude historical relationship suggests, at a minimum, no great ill effects and, more likely, a positive effect.

The burden of proof clearly lies on the side of those who claim that welfare state programs are strangling productivity and growth. If they are right, they need to explain not only why all rich nations have large welfare states, but more importantly why growth rates have grown in most rich nations as their welfare states have grown larger. As the next section suggests, the latter explanation will be quite difficult without making reference to the positive productivity effects of two key elements of the welfare state: public education and public health.

Education and public health are very productive

Markets produce too little education and health care because these goods have positive externalities—their benefits spill over beyond the individual and his or her family to other members of society. Consider education. Each of us has an interest not only in our own children's education, but also in the education of other children as well. Poorly educated children are more likely to be unhealthy, dependent on public assistance, and enter the criminal justice system when they become adults. Education reduces these social costs. Moreeducated children are also more likely as adults to be better-informed citizens and more generally capable of a higher level of social and economic interaction. Finally, particularly important for nations like the United States, whose population includes such a diversity of nationalities, religions, and races, public education transmits a common set of social values to children, thereby increasing cultural cohesion. In making decisions about how much to invest in their own child's education, parents acting individually do not take account of these public benefits. Thus, reliance on the market leads to underinvestment in education, and collective action is required to reach the optimum level of education. Of course, government financing or provision of education, or both, does not guarantee the optimal level of education. Governments are no more perfect than markets. With respect to education, however, we know that the private market fails to invest enough to balance social costs and benefits.

The empirical evidence that public education promotes productivity and growth is very strong. Economists agree that improvements in education account for a good deal of economic growth (Denison, 1962; Mankiw et al., 1992; Barro, 2001; Lucas, 1988) and all rich nations have relied overwhelmingly on public funds for primary and secondary education and predominantly on public funds for higher education. In fact, too slow growth in education can easily hamper overall economic growth in rich nations like the United States (Goldin and Katz, 2008).

The theoretical case for public health measures such as sanitation, inoculation, and most generally, the prevention of infectious disease is identical in principle to the externality, or spillover, argument for education. As with low education, the disadvantages of poor sanitation are not limited to the individual but extend society-wide. Our neighbors' failure to be sanitary imposes costs not just on them but on us. If each of us were to pay only for our own sanitation, we would have too little. If each of us were to weigh the individual benefits and costs of purchasing an inoculation, we would get too few inoculations and too much disease.

Scientific evidence also indicates that the public health measures described above have large social benefits and, like public education, promote productivity and growth. The huge gains in life expectancy between 1890 and 1930—e.g., 14 years in the United Kingdom and 16 years in the United States—are due primarily to public health investments in the late nineteenth and early twentieth centuries (Preston, 1975, 1980, 1996; Fogel, 2004; and Cutler, Deaton, and Lleras-Muney, 2006). The gains in health and life expectancy attributable to public health have led in turn to large gains in productivity and economic growth, though unlike the case for education, economists have not estimated economic rates of return for massive public health investments.

Since 1950, the greatest gains in life expectancy have been at older ages in most rich countries. In the United States, life expectancy at age 65 grew by 5.0 years over this period, largely due to gains in cardiovascular disease treatment and health insurance spending on the aged to guarantee their access to these benefits (Cutler, 2004). Though the economic gains exceed the costs, these investments were very costly in the United States. Other countries have done as well in terms of life expectancy and economic gains, but at a much lower share of national income (Anderson et al., 2003).

Social insurance and income maintenance have had small effects on growth

Before discussing the evidence for whether social insurance promotes or retards economic growth, it is worth noting that even if it has no effect on economic productivity and growth, social insurance enriches us by making us more secure. Old age insurance, for example, redistributes from the currently employed to the previously employed, but the currently employed benefit from insurance against the risk that at some point in the future they will be previously employed. Health insurance redistributes from the healthy to the sick, but the currently healthy benefit from insurance against the risk of becoming ill. Economists across the political spectrum agree that social insurance reduces economic uncertainty, thereby improving individual utility and economic well-being. Most American economists now agree that there is a role for government in assuring that the aged have sufficient income in retirement and that government can achieve this end more efficiently than private markets and the family alone (Becker and Murphy, 1988; Buchanan, 1968; Aaron, 1982; Musgrave and Musgrave, 1984; Blinder, 1988; Steuerle and Bakija, 1994; Feldstein, 1987 and 2005). Only a few ideologues reject any government role. Unfortunately, quantitative research on the economic worth of reducing insecurity is in its infancy. (Finkelstein and McKnight, 2008 and Chetty and Finkelstein, 2013).

Standard economic analysis suggests three reasons why welfare state programs might reduce the productivity of capitalism. The first and most important source of inefficiency is the taxation required to finance welfare state services. Taxes distort and blunt incentives. Benefits may also distort and blunt incentives. Because public assistance benefits are sharply reduced as earnings increase, they reduce the incentive to work. Government-guaranteed retirement pensions may decrease private saving for retirement. Finally, collecting taxes and distributing benefits entail administrative costs.

On the other hand, pensions for the aged, the disabled, and survivors, unemployment insurance, and even public assistance benefits promote social and political stability.

In the late nineteenth century, the Conservative German Chancellor Otto von Bismarck pioneered social insurance to undercut the rapidly increasing appeal of the German Socialist Party—a revolutionary party at the time—and thereby promote social stability. Social and political stability promote productivity and growth.³ Furthermore, by reducing economic insecurity, social insurance and safety nets make people more willing to take economic risks. While unemployment insurance prolongs unemployment at the individual level (Feldstein, 1976), it may be that an unemployed worker who can take the risk of remaining jobless a little longer will in the end find a job that is a better match for his or her skills, thereby increasing productivity. Thus, economic theory does not offer a firm prediction of the effects on productivity and growth of increasing or decreasing social insurance or, more generally, of the size of the welfare state.

What is the evidence? Anthony Atkinson (1999) concludes "The results of econometric studies of the relationship between social transfer spending and growth rates are mixed: some find that high spending on social transfers leads to lower growth, others find the reverse. The largest of the estimated effects—in either direction—do not, however, seem believable." In the most recent study, Lindert (2004) examines three periods of growth in the OECD welfare states—1880 to 1930, 1962 to 1981, and 1978 to 1995—and finds a statistically significant positive effect of cash transfers on economic growth during the first two periods and a very small and statistically insignificant negative effect during the third. These findings suggest that early expansions in social insurance increased growth and that the most recent expansions have had little to no effect.

Taken in conjunction with the findings about public education and public health, the research on social insurance and other cash benefits indicates that the overall effect of the welfare state on economic growth is undoubtedly positive. Two large plusses and even one small negative equal a large plus. These results are consistent with and help to explain the higher growth rates in the post-large welfare state era as compared to the pre-welfare state era. In short, capitalism makes countries rich and the socialized portion of the welfare state further enriches nations.

VI. Summary and conclusion

Myths about welfare states and their effects on economic development are widespread. In this paper, we rebut three central, related myths: that the current American welfare state is unusually small, that the United States has always been a welfare state laggard, and that the welfare state undermines productivity and economic growth.

Does the United States have an unusually small welfare state? The answer depends on the nations included in the comparison and on how the size of welfare states is measured. The US welfare state appears to be unusually small only if it is compared to other rich nations rather than all nations <u>and</u> employer-provided benefits are excluded <u>and</u> the measure of size is percent of GDP. On a per capita basis, even if employer-provided benefits are excluded, the US welfare state is one of the largest in the rich world. More important, failing

³ In "Transfers, the Social Safety Net, and Economic Growth," Xavier Sala-I-Martin (1997) develops a theoretical economic model in which transfers quell social and political discontent and thereby increase growth. He also reports that in most empirical studies of economic growth, transfers have a positive effect. Alesina, Ozler, Roubini, and Swagel (1996) find that political instability substantially retards economic growth.

to count employer-provided benefits as part of the size of the US welfare state obscures the huge economic costs of the peculiar US health insurance system. The American welfare state is not unusually small. But it is unique in its reliance upon the combination of employer-provided health benefits and health care programs for the poor—as opposed to universal programs—which has led to the largest, most expensive health insurance system in the world. Further, the expense of the US health care system has not led to improved system performance, but more to higher cost care per se (Davis et al. 2014). At the same time, health care spending in the United Sates has been shown to squeeze out spending on higher education, especially at public universities (Kane, Orszag, and Apostolov, 2005; Kane and Orszag, 2003; Hout, 2012; Hout and Janus, 2011).

Has the US always been a welfare state laggard? The answer, if the provision of mass public education is included in the measure, is exactly the contrary. Rather than being a welfare state laggard, the United States was a leader for most of its history in the provision of mass public education, though it now no longer leads in tertiary education and lags in pre-school education.

The most persuasive empirical evidence for the proposition that the welfare state undermines growth—the decline in growth rates amongst rich OECD nations that followed the huge growth in welfare states during the 1960s and 1970s—suffers from a very simple measurement problem—historical myopia. A longer look back indicates that the 1960–1975 growth rates were unusually high. Growth rates in the post-1975 era in currently rich nations are higher than they have ever been before, with the exception of the 1960–1975 period.

Finally, because the evidence of the productivity of public education and public health is so strong, including them as a part of the welfare state immensely strengthens the case that, on the whole, the welfare state enriches rather than impoverishes nations. Should public education and public health be included in the welfare state? Many, if not most of the leading scientists of welfare states think so. In the political arena, the larger debate is clearly about public provision, subsidization, and regulation versus reliance on market and family. Thus, it seems reasonable to at least consider the implications of including these public programs as part of the measurement of the productivity of welfare state programs. Either way, capitalism has been enriched enormously by public education and public health.

Myths may influence policy. The United States now lags behind other rich nations in the provision of early childhood and tertiary education, health insurance coverage, and other cash benefits that enhance child security and development. Should Americans worry about this? Should other nations imitate our example? If it were true that welfare state programs reduced economic growth and that the United States is and always was a welfare state laggard, lagging might be a good thing. The United States is, after all—excepting Luxembourg, Norway, and Switzerland—the richest nation on earth. Why worry? And, why not imitate?

But if one of the main reasons that the United States is the world's richest nation is that it has been a world leader in developing mass public education—and if it has now relinquished that lead—this is surely cause for American worry. Other nations would be well advised to invest heavily in mass education and avoid the current aberration. Similarly, if the extraordinarily large real social cost to American citizens of this unique health insurance system is in large part attributable to its lag in the development of public health insurance, and if the inexorable rise in health insurance costs is restraining investments in early childhood

and tertiary education, and in cash benefits that enhance child security and development, there is real cause for Americans to be concerned.

The Affordable Care Act—"Obamacare"—constitutes a first critical step not only towards universal coverage, but also towards restraining the growth in health care costs. No country would be well advised to follow the US health insurance example—unless they aspire to have the most expensive, least secure, and least fairly financed health care system in the world.

In the end, welfare states have many facets. Measurement is difficult and complex. Myths have a basis in measurement. Better measurement suggests that the US welfare state is not unusually small, that throughout most of the 19th and 20th centuries, the United States was a leader in the most productive part of the welfare state—mass public education—and that welfare state programs complement capitalism and further enrich nations.

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