What is Full Employment—and Why the Definition Matters

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ABSTRACT

In the wake of the dotcom boom in the late 1990s, a growing number of progressive economists began referring to 4% unemployment as "full employment" or close to it. Now, given the below 4% unemployment achieved prior to the Covid recession, that target is more likely to be identified as 3.5%. This article challenges these claims as misleading at best, and objectively deceptive given the failure of its proponents to acknowledge that their usage constitutes a rejection of both the conventionally understood meaning of full employment as a policy goal and legally obligatory, albeit unenforced policy mandates that equate the achievement of full employment with the realization of the right to work promoted by FDR and authoritatively recognized as an aspirational human right under international law.

The origin of the full-employment concept—first as a theoretical category in Keynes's General Theory, and then as a progressive public policy goal—is reviewed, and the question is asked whether 4% unemployment corresponds to either the Keynesian concept or the meaning accorded full employment by the public and in the law. The conclusion drawn is that it does not. It is argued that both Keynes's usage of the term and the legal obligation imposed on the U.S. government under both international and domestic law to strive to achieve full (or maximum) employment is synonymous with the aspirational obligation to strive for the realization of the right to work defined and authoritatively recognized in the Universal Declaration of Human Rights and its progeny. Though always contested by conservative economists, that conception of the full employment goal was generally accepted within the economics profession (and certainly among progressive economists) until the stagflation crisis of the 1970s. That crisis precipitated a loss of faith in the Keynesian strategy for achieving full employment; and both economists and policy makers effectively abandoned the full employment goal until they adjusted their usage of the term to correspond to some version of the NAIRU--without acknowledging, let alone making it clear that this constituted a rejection of both the conventional and legal mandated definition of full employment.

It is not contested that economists lack the right to freely redefine the terms they use in their theoretical work; but two caveats are asserted to that license. First, to avoid confusing consumers of both their theoretical work and their policy advocacy, it is argued that economists have an obligation to expressly acknowledge the divergence of their NAIRU-based definition of full employment from its conventional and legal meaning. Second, while economists can freely redefine the terms they use in their theoretical work, they do not have the same license to change the meaning of terminology embodied in the law. Full employment has a legal meaning that was fixed in the 1940s and has been reasserted since then. For economists to claim that their NAIRU-based conception of full employment is consistent with the full employment goal embodied in domestic and international full employment mandates is not just misleading. It is deceptive; and it's a deception that has inhibited the development of economic policies that actually are capable of achieving full employment as Keynes conceived it and as it is conceived in international human rights law.

What is Full Employment—and Why the Definition Matters

> *In the State of the Union message last year I set forth what I considered to be an American economic bill of rights.*
>
> *I said then, and I say now, that these economic truths represent a second bill of rights under which a new basis of security and prosperity can be established for all- regardless of station, race, or creed.*
>
> *Of these rights the most fundamental, and one on which the fulfillment of the others in large degree depends, is the right to a useful and remunerative job . . .*
>
> Franklin Delano Roosevelt
> State of the Union Message
> Jan. 6, 1945

INTRODUCTION

During the so-called dotcom boom of the late 1990s the U.S. unemployment rate stayed below 5% for 50 straight months. Towards the end of the boom it averaged 4% for over a year. It was the U.S. economy's best overall labor market performance since the Vietnam war years of the late 1960s, and the best peacetime labor market performance since the federal government began reporting unemployment data on a systematic basis in the early 1940s. In short, it was a big deal. Moreover, as progressive economists have pointed out, it was an especially big deal for low wage workers and disadvantaged population groups who benefited disproportionately from the economy's relatively low levels of unemployment (Bernstein and Baker 2003; Wilson 2015).

However, progressive economists haven't just trumpeted these benefits. A growing number have begun referring to the 4% unemployment achieved at the end of the dot com boom as full employment or close to it.[1] That is the claim addressed in this article. Does 4% unemployment deserve to be described as full-employment—and is the answer to that question substantively important?

I begin with a review of the origins of the full-employment concept—first as a theoretical category in Keynes's *General Theory* (1936), and then as a progressive public policy goal. I then consider whether 4% unemployment corresponds to either of these conceptions of the term's meaning. I conclude that it does not, but express uncertainty as to whether the progressive economists who equate the two recognize the disparity. Whether they do or not, I argue that their de facto revision of the full-employment concept has decidedly negative consequences. It stigmatizes unsuccessful job seekers at the top of the business cycle; muddies the public's understanding of actual economic conditions, inhibits the development of economic strategies that actually could achieve full employment; and thereby undermines the success of progressive reform efforts. This judgment is harsh, but I believe it is deserved.

What Is "Full Employment"?

Prior to the publication of the *General Theory*, economists rarely used the term full employment, and when they did, their usage was generic. They referred to individual workers finding full employment, to the full employment of a business firm's credit, to the full employment of a firm or industry's capital stock, to the full employment of the factors of production (including labor), to a group of workers or a particular occupation enjoying full employment and so on.[2] Only in the work of economic reformers was the term occasionally used in its modern sense to refer to the policy goal of furnishing "full employment" for all workers (A Practical Man, 1828; Maxwell, 1891). However, these precursors of Keynes's usage were too isolated and idiosyncratic to give the term any special meaning prior to the publication of Keynes's *General Theory* in 1936.

However, the fact that Keynes "invented" the concept of full employment doesn't mean he and his followers retained control over its meaning as it entered the lexicon of public policy discourse in the decade following the *General Theory's* publication. In fact, given the purely theoretical nature of Keynes explanation of the concept in the *General Theory*, a translation of its meaning into a more easily understood set of characteristics was crucial to its popularization.

Keynes made clear that the *General Theory* was a theoretical treatise whose intended audience consisted of other economists rather than the general public.

> I hope that it will be intelligible to others. But its main purpose is to deal with difficult questions of theory, and only in the second place with the applications of this theory to practice. (Keynes 1936: v)

In keeping with this purpose, the descriptions and definitions of full employment Keynes included in the *General Theory* (of which there are several) are designed for theoretical rather than practical purposes. They include

- the "the maximum quantity of employment . . . compatible with a given real wage" (Keynes 1936: 12)
- the elimination of "involuntary unemployment"—but not of "frictional" or "voluntary" unemployment (ibid.: 6, 15-16)
- the point at which "a further increase in the value of effective demand will not be accompanied by any increase in output" (ibid.: 26)
- the point at which the "aggregate demand function" intersects with the "aggregate supply function" (ibid.: 30)
- the point at which "money-wages have to rise, in response to an increasing effective demand in terms of money, fully in proportion to the rise in the prices of wage-goods" (ibid. 301)

Keynes fashioned each of these definitions to fit a particular theoretical context. The definitions were not designed to provide a description of full employment that would be intelligible to non-economists. Nor were they designed to provide a practical means of measuring the achievement of full employment. The predictable result was disagreement among economists as to how the achievement of full employment should be measured in the real world (Reese 1957).

Because the *General Theory* did not answer these questions and because the economists among Keynes's popularizes also failed to answer them, the promotion of full employment as a practical public policy goal has generally relied on the public to form its own impression of what the goal means in practical terms—without regard to the various ways in which economists (beginning with Keynes) have conceived and defined it.

This was especially true when the goal was first popularized during World War II. The term was still brand new; it had no prior associations attached to it; it possessed unusual salience due to memories of the Great Depression; and professional economists were principally concerned with the promotion of Keynes's policy advice rather than with painting a picture of life under conditions of full employment. In that context progressives had both the freedom and motivation to invest the full employment goal with a full measure of their aspirations.

The result was the emergence of significant differences in the way economists and the public conceived of the full employment. Policy-oriented economists such as Keynes and his followers tend to view themselves as physicians of the economy. Their ultimate motivation may be to help people or promote a particular vision of the good life; but the economy is the immediate object of their attentions. It is the "patient" their policy prescriptions are designed to "treat."

For economists, therefore, full employment is likely to be conceived as something the *economy* achieves or fails to achieve, a condition characterized by the relationships of certain economic parameters, generally conceived in abstract terms, to one another—the aggregate supply of and demand for labor, the aggregate level of employment, aggregate demand, the price level, and so on.

Non-economists tend to conceive of full employment in very different terms—as something that *individual workers* experience. The "ready availability of decent jobs at decent wages" are its markers rather than an abstractly conceived equilibrium between the aggregate supply of labor and the aggregate demand for it.

Keeping this in mind is important for a proper understanding of the term's meaning in different contexts. It doesn't mean the two ways of thinking about full employment will necessarily conflict with one another. Indeed, the reason the progressive embrace of full employment as a public policy goal occurred so quickly and went so smoothly in the 1940s is because the economist's vision of the goal was in sync with the public's vision of the goal. In other words, economists were confident they could deliver what the public expected full employment to achieve, so there was no reason to ramp back the public's expectations. "We're not talking about pie in the sky. You can have pie in this life as soon as we win control over the levers of fiscal policy."

On the other hand, the different ways in which economists and the public tend think of full employment can also result in a divergence in expectations. Non-economists might think of full employment as the ready availability of decent jobs at decent wages for everyone who wants to work, while professional economists (even progressive ones) may think of it as the lowest level of unemployment consistent with the maintenance of reasonable price stability. But more on that later.

To return to our story, progressives not only enjoyed wide latitude in imagining what full employment meant when they embraced the goal in the later part of World War II. In the United States, at least, they had two highly salient reference points to guide their thinking. The first was the U.S. economy's 1.7 percent average unemployment rate during the last three years of the war, a condition that Keynesian economists were quick to cite as a practical demonstration of what Keynes's economic policies could do (Galbraith 2000). It was hardly surprising that American progressives perceived the labor market conditions that existed during that period as full employment in practice.

The second reference point that influenced the public's conception of full employment at the time was President Roosevelt's advocacy of the right to work as an entitlement that governments had a duty to strive to secure for all members of society (Harvey 2013b). The President's 1944 State of the Union Address was particularly noteworthy in this regard, but he had been saying the same thing since before he was first elected President in 1932. In his 1944 address, Roosevelt called on Congress to enact legislation securing nine economic entitlements that he argued were needed to fully realize the universal human rights to "life, liberty and the pursuit of happiness" recognized in the nation's Declaration of Independence. The first item on Roosevelt's list was "the right to a useful and remunerative job." The second was "the right to earn enough to provide adequate food and clothing and recreation" (Roosevelt 1944).

Progressives in Congress responded to Roosevelt's call by drafting legislation designed to achieve full employment via the Keynesian strategy of using government spending to maintain aggregate demand at the full employment level (U.S. Congress 1945). In fact, the right to work was mentioned only once in this proposed legislation—just enough to make it clear that the bill was designed to secure that right. Yet no one, including President Roosevelt, thought there was any problem in this substitution of the full employment goal for that of securing the right to work. Why? Because the two goals were viewed as synonymous.

Although the effort to enact this legislation failed (Bailey 1950), its importance for our inquiry lies in what it tells us about the correspondence between progressive conceptions of full employment and the right to work at the time the former goal was embraced as a progressive public policy goal.

A similar account of the meaning of full employment (if we ignore its gendered language) was articulated at the same time by William Beveridge in the United Kingdom. A highly respected labor economists and social welfare reformer who served as the Director of the London School of Economics from 1919 to 1937, Beveridge described full-employment in the following terms in his highly influential 1944 book, *Full Employment in a Free Society*.

> It means having always more vacant jobs than unemployed men, not slightly fewer jobs. It means that the jobs are at fair wages, of such a kind, and so located that the unemployed men can reasonably be expected to take them; it means, by

consequence, that the normal lag between losing one job and finding another will be very short. (Beveridge 1944: 18).

This was the generally accepted conception of full employment at the time, and as such it was accorded formal recognition in international law along with FDR's claim that access to a decent job was a human right that governments have a duty to strive to secure (U.N. 1945: arts. 55 & 56; 1948: art. 23; Harvey 2013).

It is important for progressive economists to recognize that this history gives the public understanding of the full employment goal a status in discussions of public policy that they do not control—notwithstanding the fact that it was an economist who invented the concept in the first place. The economics profession lost ownership of the concept by virtue of their own success in promoting it. The non-economists who embraced the full employment goal neither understood nor cared how Keynes and other economists conceived of it in theoretical terms. They invested the goal with a meaning based on their own sense of what full employment meant for individual workers—the availability of decent work for everyone who wants to work.

It is also important for progressive economists to recognize that this conception of full employment suffered no erosion over time, even if its political fortunes did. Its durability three decades later is readily apparent in the advocacy of the right to work by Coretta Scott King and other progressives in the 1970s (Stein 2016) and in the presidential election platforms the U.S. Democratic Party adopted that decade. The party's 1972 platform described full employment as "a guaranteed job for all" and called its achievement "the primary economic objective of the Democratic Party" (Democratic Party 1972). The party's 1976 platform reaffirmed the party's commitment to "the right of all adult Americans willing, able and seeking work to have opportunities for useful jobs at living wages (Democratic Party 1976).

The legislation promoted by the Democratic Party in the 1970s to achieve these goals—the Humphrey-Hawkins Full Employment Act—suffered the same fate as the full employment bill progressives crafted in response to FDR's 1944 State of the Union Address. It was stripped of its operative sections designed to achieve its goals. Nevertheless, the enacted version (The Full Employment and Balanced Growth Act of 1978) does include a strong policy commitment to the achievement of the right-to-work conception of full employment.

> The Congress declares and establishes as a national goal the fulfillment of the right to full opportunities for useful paid employment at fair rates of compensation of all individuals able, willing and seeking to work (15 U.S.C. § 1021(b)).

This commitment still resides in the U.S. Code as the statutorily-mandated goal of the U.S. government with respect to the achievement of full employment.

Contrary to what a number of commentators have suggested (*see, e.g.,* Bernstein 2006: 90; Palley 2007: 7) the Humphrey-Hawkins Act does not link this goal to a targeted unemployment rate. The only definition of full employment included in the act is the one expressed in the policy commitment quoted above. What the act did do was direct the President to develop programmatic and budgetary proposals designed to achieve the interim goal of reducing the unemployment rate of persons 20 years of age and older to 3% and of persons 16 years of age and older to 4% within 5 years; and "[u]pon achievement of the 3 and 4 per centum goals" to pursue "the goal of achieving as soon as practicable and maintaining thereafter full employment and a balanced budget" (15 U.S.C. § 1022a(b)(1) and (c)(1)).

The only years in which either of the interim goals established by the Humphrey-Hawkins Act have been reached were 2000 and 2018-2019. As noted above, the nation's overall unemployment rate (i.e., the rate for persons 16 years of age and older) was 4% in 2000, and in 2018-2019 it averaged 3.8%. However, the rate for persons 20 years of age and older was 3.4% in both 2000 and 2018-2019 and—a few ticks above the 3% interim goal for "adults." It goes without saying that the act's ultimate goal—the achievement of full employment conceived as the realization of the right to work—has never been achieved.

Indeed, the passage of the Humphrey-Hawkins Act turned out to be the Democratic Party's swan song in the pursuit of full employment. In 1980 the party's presidential campaign platform "reaffirmed" its commitment "to achieve all the goals of the Humphrey-Hawkins Full Employment Act," but the commitment appeared in a laundry list of other economic goals (Democratic Party 1980). In 1984 there was no reference to the Humphrey-Hawkins Act and the party's "commitment to full employment" was treated on a par with its "commitment to housing" and "rebuilding the infrastructure of America" (Democratic Party 1984). In 1988 the term appeared only once in the party's platform, in a sentence expressing the belief that "as a first-rate world power moving into the 21st century, we can have a first-rate full employment economy" (Democratic Party 1988). Through the next 8 presidential election cycles (1992-2020), the term appeared only once, in 2016. But in that instance, the commitment was not to the achievement of full employment but to "protect and defend the Federal Reserve's Independence to carryout the dual mandate assigned to it by Congress—for both full employment and low inflation—against threats from new legislation. (Democratic Party 2016).

On its surface, this platform plank may appear to reaffirm the Democratic Party's commitment to the achievement of full employment. Actually, it suggests the opposite. Given the Fed's consistent interpretation of its so-called dual mandate (to full employment and zero inflation) as a practical mandate to target the achievement of the NAIRU, the Democratic Party's 2016 commitment to the Fed's independence in the pursuit of its dual mandate actually constituted a repudiation of both the full employment and zero inflation goal.

The replacement of the Humphrey-Hawkins Act's zero-inflation goal with a stable 2% inflation goal is of no real concern. Striving for a zero rate of inflation is widely understood to be affirmatively undesirable because of the risk of deflation it would entail (add citation). On the other hand, targeting the NAIRU does inflict real harm because it consigns millions of job wanters to suffer the adverse effects of involuntary unemployment.

[Responsible policy in wake of HH would be to seek a policy that would actually achieve full employment without triggering accelerating inflation. But instead of pursuing that goal, the vast majority of economists have sought to assuage the cognitive dissonance they reasonably should feel (not to mention the ire of a public that still does crave the economic security full employment promises) by redefining full employment as effectively equivalent to the NAIRU. The scholarly literature neither acknowledges nor justifies this move, but as footnote 1 shows, it has infected progressive as well as conservative economiests.]

Democratic Party's abandonment The term dWhat's important about this commitment—other than the fact of its reappearance after a 28-year absence from the party's platform—is that it recognizes the distinction between full employment and the achievement of low inflation opposed to a change in the way progressive economists conceive and define the achievement of full employment. The reason it's hard to tell is because most of the economists who refer to 4% unemployment as full employment don't explain what they mean by it.

To their credit, Jared Bernstein and Dean Baker are an exception to this rule. In their 2013 book *Getting Back to Full Employment: A Better Bargain for Working People*, they provide the following definition of full employment on the first page of the book's first chapter.

> Full employment can be defined as the level of employment at which additional demand in the economy will not create more employment. All workers who seek a job have one, they are working for as many hours as they want to or can, and they are receiving a wage that is broadly consistent with their productivity. The only people in the labor market not working are the ones who do not have the skill or ability to work (the structurally unemployed) and those who are between jobs (the frictionally unemployed). (Bernstein and Baker 2013: 1)

Although it doesn't match Keynes's definition(s) of full employment perfectly, Bernstein's and Baker's definition is clearly Keynesian in both substance and methodological style. What's most interesting about it, though, is how limited a role it plays in their book. Instead of estimating the full-employment rate of unemployment (FERU) by assessing the correspondence of real world conditions to the requirements of their definition, Bernstein and Baker instead rely on the assumption that the FERU corresponds to the *true value* of the "non-accelerating-inflation rate of unemployment" (the NAIRU). For that purpose, they opine, the NAIRU estimates produced by the Congressional Budget Office are "generally going to be close to the actual full employment rate (with the exception of the mid-1990s, when CBO's estimate turned out to be well above the rate consistent with full employment)" (Bernstein and Baker 2013: 2, note 1).

Why are the FERU and the NAIRU approximately equal to one another? Bernstein and Baker offer the following explanation.

> When demand in the economy can no longer create more employment, where does the pressure find an outlet? The obvious answer is higher prices, as purchasers bid up the price of goods and employers bid up the price of workers (Bernstein and Baker 2013: 2).

The problem with this explanation is not that its premise is false. It's undoubtedly true that prices will rise if an increase in aggregate demand can no longer generate an increase in employment. But that doesn't mean the converse is true—that an increase in prices necessarily means that employment can no longer expand in response to increased demand.[3] Keynes explains why very clearly. "Since resources are not interchangeable, some commodities will reach a condition of inelastic supply whilst there are still unemployed resources available for the production of other commodities." Consequently, wages and prices will tend to rise "*before* full employment has been reached" (emphasis added). Accordingly, once unit production costs start to rise in some sectors of the economy, any further increase in effective demand will "generally speaking, spend itself partly in increasing the quantity of employment and partly in raising the level of prices. Thus instead of constant prices in conditions of unemployment, and of prices rising in proportion to the quantity of money in conditions of full employment, we have in fact a condition of prices rising gradually as employment increases" (Keynes 1936: 296). In other words, what economists today refer to as the NAIRU is simply the point at which production costs start their asymmetric rise—*before full employment is reached*. There is no basis for believing the FERU and NAIRU equal one another except in a "blackboard economy" whose features have been carefully specified to achieve that effect.

My purpose here is not to single out Bernstein and Baker for criticism. As noted above, they should be commended for offering a definition of full employment to accompany their claim that it corresponds to 4% unemployment. Other progressives who have referred to 4% unemployment as full employment have been less forthcoming. Why this has been the case is for them to explain, but the result is confusion as to what they mean when they use the term. The most reasonable assumption is that they too are conflating it with the NAIRU, in disregard not only of the commonly understood and legally mandated meaning of the term, but also of Keynes's theoretically-grounded definition(s).

The Economy's Job Gap

What can be learned about the likely level of the FERU from an empirical perspective? Figure 1 illustrates what I call the economy's job gap. The bottom line in Figure 1 shows the number of job openings employers in the United States were seeking to fill on a monthly basis from December 2000 (the date this data series began) through June 2016. The line immediately above it, labeled " Official Unemployment," shows the number of jobless individuals who were actively seeking work in the United States on a month to month basis over the same period of time. The next line adds "Involuntary Part-Time Workers" to official unemployment. This group consists of individuals who are working part time but want to work full-time. Finally, the top line adds to these two groups jobless individuals who say they want a job even though they have not "actively" searched for one during the preceding four weeks.[4] The distance between the bottom and top lines in this figure provides a rough estimate of the number of additional jobs needed to provide paid employment for everyone who wants to work. I shall refer to this as the economy's "job gap."

[FIGURE 1 HERE]

The principal source of the "roughness" of this estimate is the fact that it does not distinguish between full and part time jobs. Involuntary part-time workers have some of the employment they want, so expressed in terms of full-time-equivalent (FTE) jobs, each of them needs only some fraction of an FTE job to satisfy their desire for more work. Similarly, not all unemployed workers are seeking full-time jobs, and the same is true of job wanters who are not counted as unemployed. On the other hand, the BLS's Job Openings and Labor Turnover Survey (JOLTS) does not include information concerning the full or part-time character of reported job openings, so the number of FTE job openings in the economy is also smaller than Figure 1 suggests. Still, the importance of the figure consists in what it tells us concerning the persistence of the economy's shortage of jobs—its failure to satisfy even the most basic pre-requisite for the achievement of full employment: the availability of enough jobs to fully employ the economy's labor force, rather than the exact dimensions of that shortage.

As one would expect, Figure 1 shows that the size of the economy's job gap mushroomed during the so-called Great Recession, reaching a peak shortage of 27.8 million jobs in May 2009—the month before the recession officially ended.[5] More remarkable is the fact that the job gap remains sizeable even at the top of the business cycle. In November 2007 (the month before the official start of the so-called Great Recession) the U.S. unemployment rate was 4.7%, but there were still about 11.8 million more job wanters in the country than there were job openings. More importantly for our inquiry, in December 2000, with the national unemployment rate at 3.9%, there were still approximately 8.2 million more job wanters in the country than job openings.

The existence of this job gap is hard to reconcile with the claim that the economy was at or approaching full employment in 2000—irrespective of whether that goal is defined in Keynesian terms or according to the right-to-work/jobs-for-all conception of the goal's meaning. To cite once again the Keynesian portion of Bernstein's and Baker's proffered definition of full employment, how is it possible to maintain that the U.S. economy in 2000 was at or approaching the "level of employment at which additional demand in the economy will not create more employment"? Or, to cite the right-to-work/jobs-for-all portion of their definition, how is it possible to maintain that labor market conditions in 2000 came close to satisfying the requirement that "[a]ll workers who seek a job have one" and "they are working for as many hours as they want to or can"? The only way the U.S. economy can be described as at or close to full employment in 2000 is if that goal is equated with the NAIRU, but as explained above, that assumption is no more consistent with the Keynesian definition of full employment than it is with the right-to-work/jobs-for-all definition of the goal.

Unemployment in a Job Short Economy

In a job short economy unemployment is as inevitable as the fact that one child is always left standing at the end of a round of musical chairs. No matter how skilled the children are at playing the game and no matter how hard they try to win a seat, there will still be one child left standing after the music stops. "Chairlessness" is built into the game, and the same is true of unemployment in a job short economy.

There are two important conclusions concerning the achievement of full employment that flow from this observation. The first concerns the central role played by job availability in determining the true level of the FERU. The second concerns the difference between employment policies that affect the level of unemployment and those that affect its distribution.

Job Availability: To achieve full employment in the Keynesian sense of the term the existence of an adequate number of jobs to employ all willing workers is both a necessary and sufficient condition for the achievement of full employment. This is so because any unemployment that remains if enough jobs are available to employee everyone who is not "voluntarily unemployed" can be attributed to "frictional" factors—a term Keynes used to refer to structural imbalances in resource allocation as well as the time it takes job seekers and employers to find one another and conclude a hiring (Keynes 1936: ___). More than that is required to achieve full employment in the right-to-work/jobs-for-all sense of the term, but adequate job availability is the first requirement—as William Beveridge's account of the meaning of full employment quoted above illustrates.

Unfortunately, the job-openings time series reported in Figure 1 is available only as far back as December 2000. However, a job-vacancy time series going back to 1923 has been estimated based on help-wanted advertising data (Zagorsky 1998). Those combined time series suggest that there have been only 3 years in the past 92 when there were more job openings in the United States than unemployed workers—from 1943 through 1945 when an average of 11 million prime age workers were "employed" by the U.S. armed forces, the economy was operating at full hilt in support of the war effort, and the unemployment rate averaged 1.7 percent.

A number of countries other than the United States have experienced unemployment in the 1% to 2% range for extended periods in the late 1940s through the early 1970s—with some experiencing it as late as the early 1990s (Martin 1994). In New Zealand the unemployment rate averaged 0.9 percent throughout the 1950s and 1960s (Denman and McDonald 1996), so it's possible the level of unavoidable frictional and structural unemployment can settle down to less than 1% in economies that manage to achieve sustained full employment and provide effective support for public labor exchanges.

No country has achieved unemployment that low on a national basis in recent years, but it does occasionally occur on a subnational level. In 2000, for example, when the U.S. unemployment rate averaged 4.0 percent on an annual basis, there were 39 counties in the country that had average annual unemployment rates between 1 and 2 percent. In other words, that's still where unemployment rates tend to go when jobs are truly plentiful—even if it is only on a local level.

This gives us good reason to believe that the FERU is between 1% and 2% and that it has not risen in recent decades—only that it has become more difficult to achieve because the NAIRU is higher now than it was in the immediate post-World War II era.

The Level and Distribution of Unemployment: It is generally accepted that cyclical unemployment is caused by a shortage of jobs. In contrast, the problem tends to be attributed to other causes at the top of the business cycle. Conservatives tend to blame it on behavioral defects on the part of jobless individuals who say they want to work. Progressives tend to blame it on the unequal distribution of employment opportunities. Both conservatives and progressives find support for their point of view in the experience of individuals and groups who overcome disadvantages to achieve success, and this has led to broad agreement across the political spectrum that education and training constitute a highly effective strategy for combating unemployment.

But Figure 1 suggests that the problem of unemployment has the same cause at the top of the business cycle that it does during a recession. There simply aren't enough jobs to go around, so a certain number of people are destined to suffer unemployment irrespective of how much collective energy is devoted to pursuing either conservative or progressive solutions to the problem. Nor is this suggestion inconsistent with the success of those solutions in individual cases. The problem is that the logic underlying both conservative and progressive policy responses to the problem of unemployment at the top of the business cycle is deeply flawed by the fallacy of composition. Because people with more education suffer less unemployment than people with less education, it is assumed that if everyone got more education, then everyone would suffer less unemployment. Not so!

This point is immediately comprehensible if we consider whether the problem of "chairlessness" in the game of musical chairs can be solved by furnishing every child who is left standing at the end of a round of the game with a package of assistance that combines all the strategies conservatives and progressives prescribe to combat unemployment at the top of the business cycle. Motivational encouragement, special instruction in seat-grabbing strategies, athletic training in moving quickly when the music stops, strict enforcement of anti-discrimination and anti-bullying rules in the conduct of the game, and so forth. Even if everyone who is helped in this way succeeds in winning a seat the next time they play the game, it will have no effect whatsoever on the number of children left standing at the end of a round of the game.

This does not mean that the strategies commonly proposed for overcoming the problem of unemployment at the top of the business cycle are a waste of time. It's just that their effect is different than we imagine. What Figure 1 suggests is that the ***level of unemployment*** in a market economy is determined by the size of the economy's job gap across all phases of the business cycle, not just during recessions. However, the ***distribution of unemployment*** among the individuals and groups comprising the economy's labor force is determined by all the factors that conservatives and progressives target via the strategies they advocate for combating unemployment at the top of the business cycle—differences in education and training, individual motivation and behavior, geographic disparities in the availability of jobs or public transportation, employment discrimination, individual needs for employment-enabling services like child care, and so forth.

If you want every child to have a seat after the music stops in a game of musical chairs, you have to make sure there are chairs enough for everyone who is playing the game. If you want to end the problem of unemployment, you have to make sure there are enough jobs to provide work for everyone who wants it.

Why the Definition of Full Employment Matters?

Some readers may wonder whether it really matters how full employment is defined. Isn't it just a semantic dispute? Achieving 4% unemployment is rare enough, and on the rare occasions it is achieved its salutary effects are significant. Wages rise, working conditions improve, poverty and inequality decline. Why aim for a target we apparently have failed to achieve in peacetime in the last 95 years, and likely much longer?

I believe there are four reasons the definition of full employment matters a great deal. First, claiming that 4% unemployment constitutes full employment tends to stigmatize the millions of workers who suffer unemployment at the top of the business cycle simply because there aren't enough jobs to go around—the very same reason workers suffer unemployment during a recession. They aren't unemployed because of behavioral shortcomings, as conservatives claim, but neither are they unemployed because of the structural barriers to equal employment opportunity and local economic development that progressives blame. Even the slowest or most bullied child in a game of musical chairs will find a seat if the number of chairs in the circle equal or exceed the number of children playing the game, and the same is true of the least skilled job seeker in an economy with enough job opportunities to provide work for everyone who wants a job. Referring to 4% unemployment as full employment obscures this enormously important but rarely recognized fact. And if progressive economists don't recognize it, who will? Conservatives will feel affirmed in their jaundiced view of the unemployed not just by the failure of progressive interventions to succeed in individual cases, but also by the fact that the number of people needing such assistance tends to stay the same even when the interventions succeed in individual cases.

The second reason the definition of full unemployment matters is because the use of any term in a way that differs from its commonly understood meaning is likely to foster misunderstanding. That's a serious shortcoming when you're in the business of explaining economic conditions to people who rely on your judgment. Economists may not like the fact that they no longer "own" a term they created, but that's what has happened to the concept of full employment. It's meaning has moved into the public domain and is no longer controlled by what economists say it means. That doesn't mean economists are barred from defining and redefining the concept of full employment however they want. It simply means they should be cognizant of the term's commonly understood meaning when referencing the full employment goal, and if their conception of the term differs from its commonly understood meaning, they should acknowledge and explain the difference.

The third reason the definition of full employment matters is because the recent tendency among progressive economists to equate the FERU and the NAIRU inhibits the development of policies capable of pushing past the latter barrier. When the stagflation crisis shattered the confidence of progressive economists in the ability of the Keynesian full-employment strategy to achieve full employment, they should have immediately gone back to the drawing boards to figure out an alternative or supplemental strategy that could. Their failure to tackle that task had the practical effect of consigning the study of alternative means of achieving full employment to the margins of heterodox economic inquiry. The concentrated attention the task deserved—from progressive think tanks and foundations as well as university-based economists—never materialized.

Nor was work on alternative strategies for achieving full employment encouraged by the renewed attention progressive economists accorded the goal in the wake of the dotcom boom and the Great Recession. Why? Because the progressive economists cited in this article's first footnote pronounced the problem solved. If full employment is equated to the NAIRU, we don't need new strategies to achieve it. The 4% unemployment achieved during the dotcom boom is within our reach using conventional Keynesian measures, and the Great Recession showed that those measures are still useful as an anti-cyclical policy as well. So efforts to develop an alternative full employment strategy are rendered unnecessary.

The fourth reason the definition of full employment matters is the one suggested by FDR in this article's epigraph. It's because securing the right to work (i.e., the commonly understood meaning of full employment) is essential for the success of the rest of the progressive reform agenda. As FDR explained it, of all the rights included in his proposed second bill of rights, the "one on which the fulfillment of the others in large degree depends, is the right to a useful and remunerative job."

The reason for this is not because access to a decent job is more important than other economic and social rights in and of itself. It's because of the instrumental role its achievement would play in facilitating the realization of other economic and social rights. Just as securing free speech rights plays a crucial facilitative role in securing other civil and political rights, so to would the realization of the right to work facilitate the realization of other economic and social entitlements. On an economic level, securing the right to work would reduce the cost to government of fulfilling the basic needs of all members of society while increasing the resources available to it government to accomplish that task. Politically, insuring the ready availability of decent work for everyone who wants it would dramatically reduce the controversy that has swirled around the provision of aid to the "able-bodied poor" since at least the mid-1300s (Harvey 1989). Simply stated, securing the right to work would make it both economically and politically easier to win and sustain public support for the rest of the progressive economic and social reform agenda.

For all of these reasons, the development of a strategy capable of achieving full employment in the commonly understood, right-to-work sense of the term deserves the concerted attention of progressive economists. Those who think the achievement of 4% unemployment is a good enough macroeconomic goal need only reference the late 1960s, when urban riots, widely recognized as rooted in the economy's failure to provide "jobs for all," swept the country during a four-year period of under 4% unemployment. Both the limited success of progressive efforts to achieve equal employment opportunity for all members of society and the erosion of support for the Democratic Party among white working-class voters since the 1970s, illustrates the difficulties involved in promoting a progressive reform agenda that is not supported by a credible strategy for insuring the availability of decent work for all members of society.

In short, FDR had good reason to view the achievement of full employment as the key to success in advancing the progressive reform agenda. The failure of progressive efforts to enact full employment legislation at the end of World War II marked the end of the New Deal era. The civil rights movement succeeded in jump-starting a new era of progressive reform in the 1960s, but the failure of that effort to include an effective full-employment strategy severely circumscribed its achievements, and when progressives finally did concentrate on securing the right to work in the 1970s, their campaign foundered because the stagflation crisis exposed inadequacies in the Keynesian full employment strategy that they were unable to repair or ignore.

And so the 1960s and early 70s reform era ended. The neo-liberal era of conservative retrenchment, persistently high levels of unemployment, and rising inequality took hold; and four decades later, progressives are still struggling to restart the engines of progressive reform. The resilience of the neo-liberal era—despite its harsh social consequences—is its most distinguishing characteristic. It represents the longest period of conservative ascendency in American politics since the beginning of the industrial age. Progressives tend to blame the staying power of neo-liberalism on the wealth and power of its principal beneficiaries; but there's another candidate for the spoiler's role—the failure of progressives to develop a credible full employment strategy—the foundation (to paraphrase FDR) on which the success of the next period of concentrated progressive reform arguably depends?

Is an Alternative Strategy Possible?

But what if we can't do any better than 4% unemployment? If driving the rate of unemployment down to the NAIRU level is as good as we can do, shouldn't progressives focus on realizing that goal rather than wishing for what we can't achieve? Maybe, but what's certain is that we are unlikely to figure out if we can achieve genuine full employment as long as progressive economists continue to muddy the issue by referring to 4% unemployment as full employment.

It is also important to note that strategies for achieving full employment that take into account the inflationary tendencies of Keynesian macroeconomic measures have been suggested. Based on his experience administering price controls during World War II, John Kenneth Galbraith always believed some form of price administration was necessary to permit Keynesian policies to achieve sustained full employment (Laguerodiea and Vergarab 2008). Gösta Rehn and Rudolf Meidner famously advocated a coordinated strategy of restrictive macroeconomic policies, solidaristic wage policies and active labor market measures to achieve full employment without sacrificing either price stability or high rates of economic growth (Erixon 2010). More recently, modern-money theorists working in the post-Keynesian tradition have developed policy proposals based on Hyman Minsky's suggestion that a direct job creation program could perform a price-stabilizing buffer stock function in the labor market while simultaneously achieving full employment (Mitchell and Watts 1997; Wray 1999). My own contribution to this literature (*see, e.g.,* Harvey 1989; 2011; 2013a) also relies on direct job creation, but with greater attention to securing all aspects of the right to work. A recent iteration of this strategy can be seen in full-employment legislation introduced in the last three sessions of Congress by Rep. John Conyers (U.S. Congress 2015).

This is not the place to discuss the merits of any of these proposals. My point is simply that alternative strategies for achieving full employment have been proposed. At the very least they provide a starting point for investigations into the question of whether and how that goal can be achieved. It is my hope that the progressive economists criticized in this article can be persuaded to join in that effort and use their influence to alert progressives to the importance of the task.

Notes

1. *See, e.g.,* Bernstein and Baker (2013) (describing "4 percent — the average unemployment rate for 2000, the last time we were at full employment" as "a reasonable target, one worth shooting for"); Bivens (2014) (describing the U.S. economy's performance in 2000 as an "approximation of genuinely full employment); Boushey, Mishel and Bernstein (2002) (noting that "The full-employment economy of the late 1990s made a large and positive difference in the growth of real income for low- and

middle-income families"); Krugman (2013) (commenting that that "[t]he US economy in 2000 had really, really full employment — it was an era when labor was so scarce that McDonald's was actively trying to recruit senior citizens, when the joke was that you could get a job as long as your breath would fog a mirror, that is, as long as you were actually alive"); Kuttner (2012) (noting that "In the late 1990s, when we had full employment, in one three-year period Social Security's Year of Reckoning was set back by eight years, from 2029 to 2037); Madrick (1999) (noting that "little has been better for the country than a dose of full employment"); Mishel (2015) (stating that "we should strive to reach genuine full employment" described as "roughly 4 percent unemployment"); Palley (2007) (describing the distinguishing features of full employment as "wages systematically rising with productivity" as in the "late 1970s, the late 1980s, and the late 1990s, when wages started rising with productivity at the tail end of booms"); Pollin (2012) ("[W]hat do we mean by full employment at decent jobs? Full employment, in my view, a realistic definition is below 4 percent as officially measured by the government."); Stiglitz (2002) (commenting, when asked to describe the benefits of trade, that "in the United States and in advanced industrial countries, we often say that trade is good, but imports are bad. We like to export, but we don't like to import. Why? Because we recognize that sometimes imports lead to job destruction. We recognize that it is the responsibility, though, of those involved in macromanagement, the Central Bank -- the Fed in the United States -- to ensure the economy remains close to full employment. But even when we had unemployment of 3.9 percent, 4 percent, we worried. We worried about the unemployment that a flood of imports could create, even though these people could get jobs eventually elsewhere in the economy.").

2. The term "full employment" does not appear at all in Adam Smith's *Wealth of Nations*. Ricardo used it just once in his *Principles of Political Economy and Taxation* when he described laborers being "without full employment" following a war (Ricardo 1912, p. 176). John Stuart Mill used the term three times in his *Principles of Political Economy*, always, like Ricardo, with an individual connotation. He described a worker employed to perform only one task in the division of labor as having "full employment in that occupation," economic conditions tending to promote an increase in marriages as "seasons of cheap food and full employment," and the low wages workers earned in certain agricultural districts as deplorable even when they were "in full employment" (Mill 1871, pp. 81, 210, & 216). Alfred Marshall (1890) did not use the term at all in his *Principles of Economics*, and only once in *Industry and Trade*, referring to the "full employment" of "a machine" rather than a worker (Marshall 1919, p. 194). A.C. Pigou, Keynes's foil in the *General Theory* used the term only twice in his 1914 treatise on unemployment, referring to "persons other than those for whom full employment can be found" and to workers employed in a field of industry in which "full employment could be accorded to them" (Pigou 1914, pp. 57 and 194). In his *Theory of Unemployment* (1933) he used it just once, in referring to a general equilibrium condition in which there is "no unemployment and no unfilled vacancies anywhere." Hobson used the term more frequently (a handful of times in several of his books) but always generically, although in

the *Economics of Unemployment* (1922: 6, 29, 40, 69 & 149) this generic usage included references to macroeconomic conditions that are similar to those Keynes later described as constituting full employment.

3. The logical error committed by Bernstein and Baker in this instance is categorizable as an example of the propositional fallacy of affirming the consequent.

4. For a jobless individual to be counted as unemployed in BLS statistics, they have to satisfy the following criteria.

> People are classified as unemployed if they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work. Actively looking for work may consist of any of the following activities:
>
> Contacting:
> An employer directly or having a job interview
> A public or private employment agency
> Friends or relatives
> A school or university employment center
> Submitting resumes or filling out applications
> Placing or answering job advertisements
> Checking union or professional registers
> Some other means of active job search
>
> Passive methods of job search do not have the potential to connect job seekers with potential employers and therefore do not qualify as active job search methods. Examples of passive methods include attending a job training program or course, or merely reading about job openings that are posted in newspapers or on the Internet.

(U.S. Bureau of Labor Statistics 2016). Jobless individuals who say they want a job but do not satisfy these criteria are deemed to be outside the labor force, but the BLS does estimate the number of such persons in the economy along with the number who are either employed or unemployed. And, as Figure 1 illustrates, their number grows and shrinks over the course of the business cycle in the same way unemployment does.

5. One of the interesting characteristics of the job gap estimates reported in Figure 1 is that the gap's peak and trough correspond more closely to the trough and peak of the business cycle than the unemployment rate. While it is well known that unemployment peaks sometime after the trough of the business cycle passes, the size of the economy's job gap, as measured by the data reported in Figure 1, provides a contemporaneous indicator of the business cycle's turns.

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