

The Stagnating Labor Market

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Last Updated: September 19, 2010

“...of all the aspects of social misery nothing is so heartbreaking as unemployment...”

Jane Addams (1910)

Twenty Years at Hull-House

The American workforce is normally a dynamic machine for creating jobs and opportunities. People transition from being employed to unemployed to leaving the labor force entirely many different times, and for many different reasons, throughout their lives. Americans change jobs, take time to search for new jobs, leave the labor force to educate themselves or pursue other goals, only to return to work later.

But ever since the financial crisis of 2008 and the following recession the labor market has broken down. Though tempered by the fiscal and monetary stimulus programs of the government, the waves of unemployment and exits from the labor force have shown the need for continuing and renewed support to bolster the stagnating labor market.

In this paper we take a macroscopic view of the labor market. We find that, for the first time since we can find data on the topic, starting at the beginning of 2009 it is more likely that an unemployment person will drop out of the labor force rather than become employed. We also find that ability of the growing population outside of the labor force to find employment is declining rapidly.

We also look at the fate of the underemployed, or people who are employed but aren't working full time due to economic reasons. We find that the ratio of the underemployed has skyrocketed across all sectors and across all occupations, numbers that calls for more action to increase aggregate demand rather than focus on skills and structural changes.

For the labor market has two problems. As aggregate demand isn't strong enough to keep unemployment down, the country will have a continuing problem with workers dropping out of the labor force. As those worker's skills and human capital deteriorate from being outside the labor force it will be harder to get back to full production and a working economy for all Americans.

Key Findings

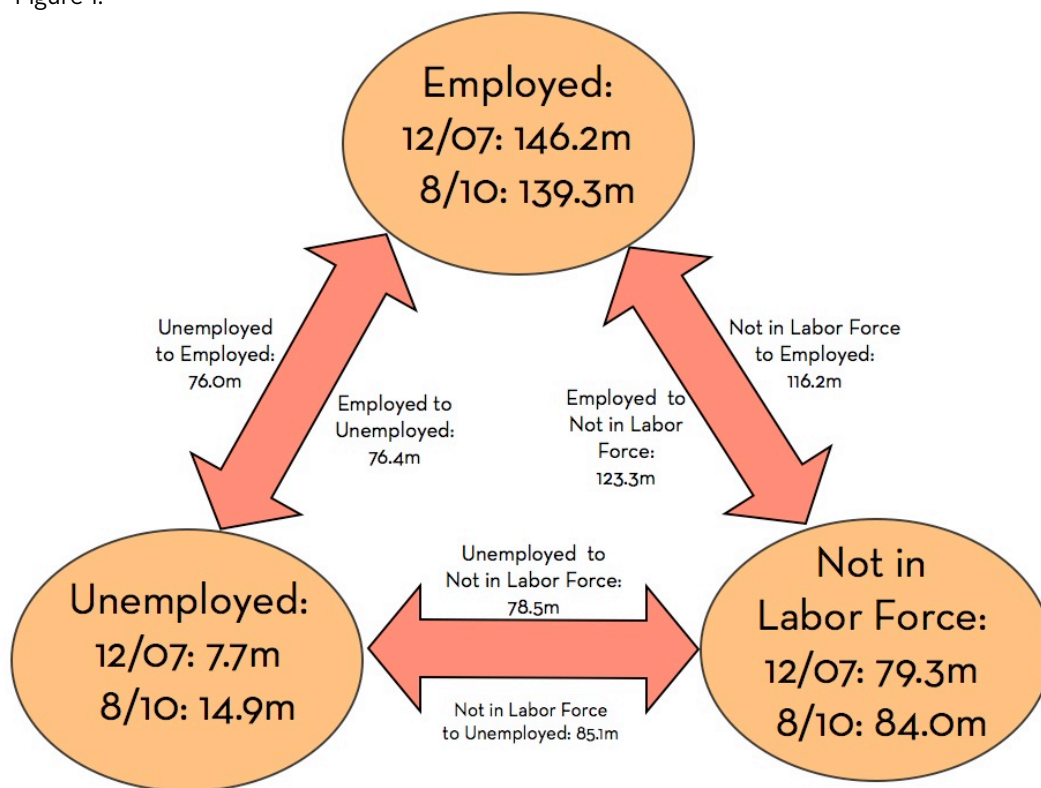
- Although the unemployment number remains high it isn't a full picture of the terrible situation in the labor market. The population that is out of the labor force and no longer trying to find a job is steadily increasing, and the normal mechanisms for those people to reenter employment have collapsed.
- Starting at the beginning of 2009 it is now more likely that someone who is unemployed will drop out of the labor force than find a job. This is a new problem for our economy, as this hasn't happened as far back as data can be found (1967). These workers need targeted intervention before they become completely lost to the normal labor market.
- Underemployment, or those employed working part-time for economic reasons, has increase greatly, often more than doubling. This is across all analyzed sectors and occupations and is negatively correlated with capacity underutilization. The underemployed have the skills to work the jobs they have and their incentives aren't distorted by unemployment insurance - they point to a story of a lack of aggregate demand.

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Figure 1:



Data: Bureau of Labor Statistics Current Population Survey, Seasonally Adjusted, Roosevelt Institute.
 Note: Flows between states are total from 12/07 (when recession starts) through 8/10. Numbers will not add perfectly due to growth of the population.

INTRODUCTION

Unemployment is the human face of the recession. The misery of economic downturns is to be found in the immense loss of productive human potential and the associated degradation of self-worth and economic security that it brings. Growth may have resumed in America, but the malaise and sense of rage among the population almost certainly reflects the fact of stubbornly high and persistent unemployment in the country. We are currently faced with the realization that whatever good the stimulus and other policies undertaken by the government may have done to stall an even deeper depression, it has not been enough to restore health to the labor market.

In the face of this uncomfortable fact, several arguments have been put forward to suggest that there is something natural about this state of affairs and further government intervention is either not necessary or likely to be ineffectual. First, there is the argument that the unemployment rate is falling (from its high of 10.2% at its peak to 9.6% now) and that it will simply be a matter of time before unemployment reduces further since it is a lagging variable.

Such an argument is flawed on at least two grounds. First, the unemployment rate has been reduced at the moment at least partly because of the fiscal policy actions of the government in the last two years. Second,

as we shall show, the headline number does not take into account other dangerous weaknesses in the labor market.

Another argument that has been put forward is that the Non-accelerating Inflation Rate of Unemployment (NAIRU) should be revised upwards to nearly 8% in light of the vast structural changes in the economy and that government action to reduce unemployment will simply serve to increase inflation. This argument is made despite the fact that inflation is nowhere to be seen at the moment and instead, deflation is a major concern.

Finally, a large fraction of unemployment is argued to be 'structural' in the sense that the jobs lost are sectorally concentrated or concentrated in jobs for which the skill set is no longer needed. Under such a scenario, additional government spending to support the labor market is wrong-headed as it serves to distract from the need for simply retraining workers.

In this paper we provide a macroscopic overview of the workings of the labor market in the last couple of decades so as to shed some light on the plausibility of such narratives. We show that the traditional workings of the labor market have been severely undermined and that this most likely reflects substantial weakness in aggregate demand rather than structural changes. We point out reasons to believe that the labor market is even weaker than the headline data suggests and as

such that urgent and continued government intervention is merited.

THE LABOR MARKET

First, let's define three terms: *employed*, *unemployed*, and *not in the labor force*. These definitions derive from the government's data on how people report their own work situations. These three categories of labor will guide our analysis.

Employed people include those who did at least one hour of work per month as a paid employee, whether in their own business, as a professional or farm laborer, or at the family business (15 hours or more). They also include those who were temporarily absent from work at the time of the survey because of vacation, illness, job training or other reasons.

Unemployed people are those 16 years and older who had no employment and had made some effort to find employment during the previous month.

The labor force is defined as those who are employed and unemployed. People not in the labor force includes those 16 years and older who are neither employed nor unemployed according to the definitions above. This could include discouraged workers who have looked for work in the past year but not in the past month (so they

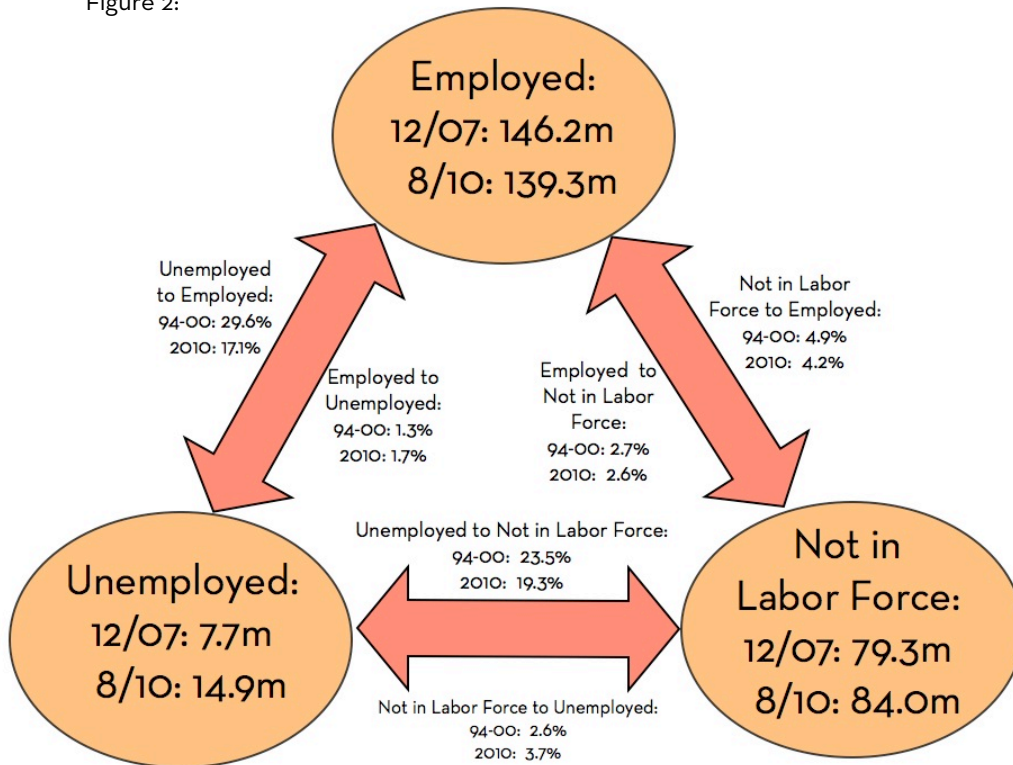
don't qualify for the unemployment definition), or anyone no longer looking for work.¹

A person can be in only one of these states at a time. Under normal circumstances, people transition often from one category to another. When we talk about the transitions between these states, i.e. about the number of unemployed who become employed, we use the term flows. Because of these properties, we can draw the labor economy as follows. Here, we compare the size of these states as well as the flows between them. We use as end points December 2007, when the economy went into a recession, and our current situation represented by August 2010.

The Current Flows

Figure 1 shows the total population in each state for each time, as well as the total number of people who have transitioned between the two categories. So, for instance, 76.4 million people moved from employed to unemployed at some point since the recession started and 74 million moved from unemployed to employed. Many of these people have made multiple trips around this diagram. (The chart will not add up perfectly due to measurement errors in the transitions and the growth of the population.)

Figure 2:



Data: Bureau of Labor Statistics Current Population Survey, Seasonally Adjusted, Roosevelt Institute.

Note: Average flows between states are average of monthly rates in terms of source state for time period indicated.

This image makes clear that there are 6.9 million fewer people employed now than at the beginning of the recession. 7.2 million more people are unemployed. Even more disturbing, an additional 4.7 million people are not in the labor force. Why is this important? The unemployment rate is calculated as:

$$\text{Unemployed}/(\text{Labor Force}) = \text{Unemployed}/(\text{Unemployed} + \text{Employed})$$

This definition doesn't take into account the large increase of people who are no longer part of the labor force: an additional 4.7 million people many of whom were once working and are no longer.

HEALTHY VERSUS UNHEALTHY LABOR MARKETS

The transitions between these states are the bloodstream of the American economy. Let's look at the healthy years of 1994-2000, which featured wage growth and low unemployment, and compare the numbers with 2010. We'll compare the monthly transitions between states as a percent of that month's original population. Since these are monthly measurements, small differences add up very quickly over the course of quarters and years.

Looking at the transition between not in the labor force to employed, we see that during these years, on average, 4.9% of the non-labor force found a job every month. Now that number is down to a disturbing 4.1%. At the same time, we see an increase in the percentage of people not in the labor force to unemployed - that number has skyrocketed from 2.6% a month in good times to 3.7% in 2010.

As we see from the two charts, the increase in unemployed is largely a function of those who are out of the labor force not finding jobs. For example, students and young people who would normally be entering the work force for the first time are now transitioning to unemployed status.

Another major change is that the percentage of the unemployed who find a job has plummeted. Normally this number is very high in the United States. During 1994-2000 the number was 29.6%, which meant there was an almost 30% likelihood that someone looking for a job would be employed in the next month.

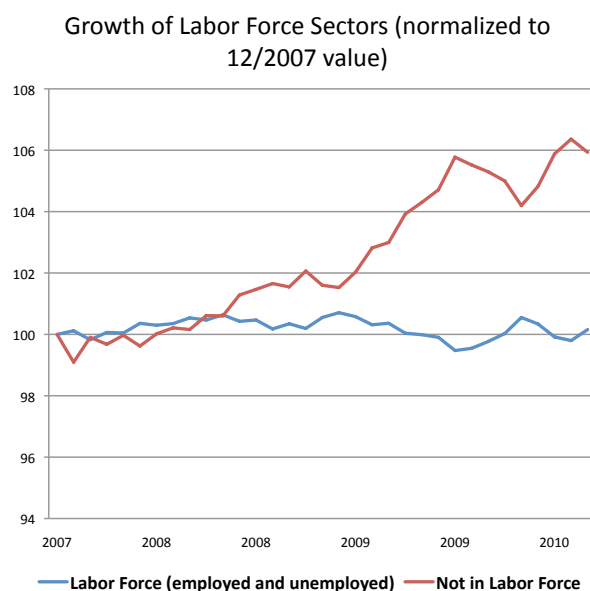
One of the strongest features of the United States' labor markets is the consistently high chance of the unemployed to find a job relative to other countries. For example, in 2002 the rate of the unemployed finding a job in Germany was about one-sixth of what it was in the United States. This feature of our economy both is the

result of, and justifies, our relatively weak social safety net for the unemployed.²

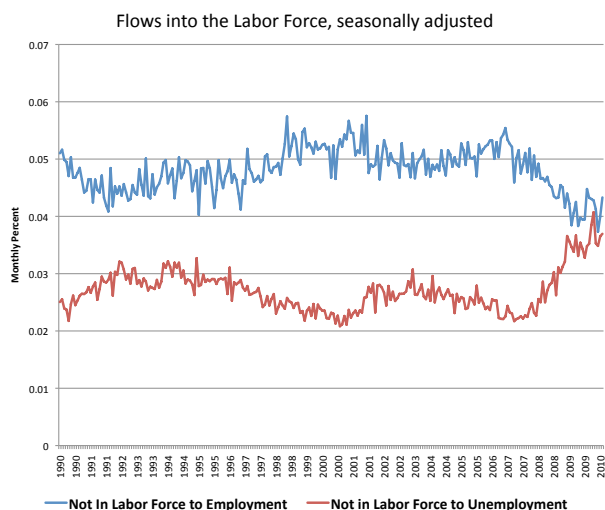
ENTERING THE LABOR FORCE

Looking at these two diagrams of the labor force, the normal flow from out of the labor force to employed has broken down. Normally the labor markets are capable of taking a large number of those who are out of the labor force and bringing them straight into employment.

During this recession, the labor force, which is the total of the employed and unemployed has been flat in growth, while the *not in labor force* has been growing:



The following is a chart that looks at the percentages of monthly flows out of the labor force (both this chart and the previous one are from BLS, CPS seasonally adjusted data). This is the percentage of those out of the labor force who become employed or unemployed. This is a monthly percentage, so minor changes will dramatically change the landscape of the labor markets.



What we see here is that leaving the out of the labor force population has become incredibly difficult for people. The percentage of those who would normally exit out of the labor force into employment has dropped, while the flow into unemployment has at the same time increased. So instead of the economy absorbing the out of the labor force population, it is being redirected to the unemployment lines.

According to a recent analysis of the unemployed carried out by the Bureau of Labor Statistics, young people had the highest nominal increase in their long-term unemployment rate and were over-represented among the long-term jobless.³ As students often leave schooling to enter the labor force this increase in young people's unemployment rate is indicative of those who go from not in the labor force to unemployed.

THE MOVEMENT OF THE UNEMPLOYED

We have seen that people who are out of the labor force find it harder to get a job and instead are traveling to the unemployment state. Next we look at the outflows from unemployment. The flow from unemployed to employed is one of the signature features of the American labor force.

On the next page Figure 5 shows the outflows from unemployment to employed and not in the labor force as a percentage of transitions against the total number.

Starting at the beginning of 2009, an unemployed worker is more likely to leave unemployment by dropping out of the labor force instead of becoming employed. This has been a new and consistent feature of our economy over the past year and a half. Instead

of finding a job, a worker is more likely to simply leave the labor force during this recession.

There are many reasons to believe that workers who are out of the labor force have their human capital and skill sets depreciate at a much faster rate than those who are in the labor force. And as we see above, it is much more difficult in this recession for those out of the labor force to become employed.⁴

To look at this through a long series of data we turn to a data set collected by Robert Shimer. This data is quarterly instead of monthly and has been adjusted to remove a time inconsistency issue.⁵

Figure 6 looks at the flows out of unemployment going back to 1967. We can see that it has never been more likely than it is now for the unemployed to leave the labor force over finding a job in the labor market.. This is a brand new phenomenon in this recession that begins in quarter 4 of 2008 according to this data set.

This is more obvious when we plot the difference between the two lines, as we do in Figure 7, which is the difference between the flow to employment versus the flow to not in the labor force for the Shimer data. There are no consistent times where it is more likely for a person to leave the labor force rather than find a job than it is during this recession.

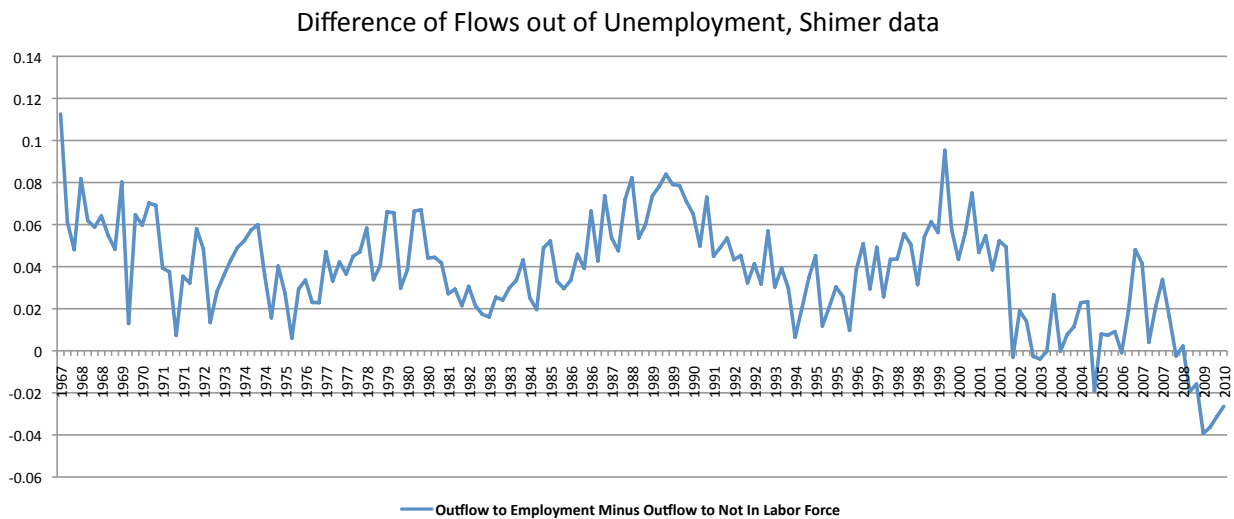
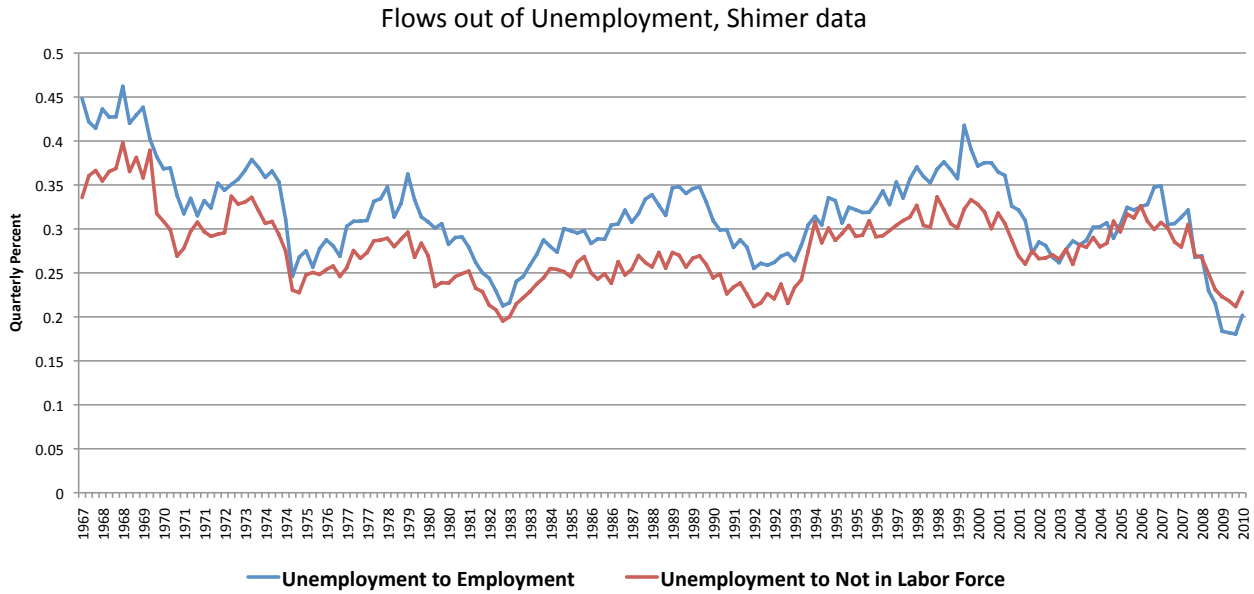
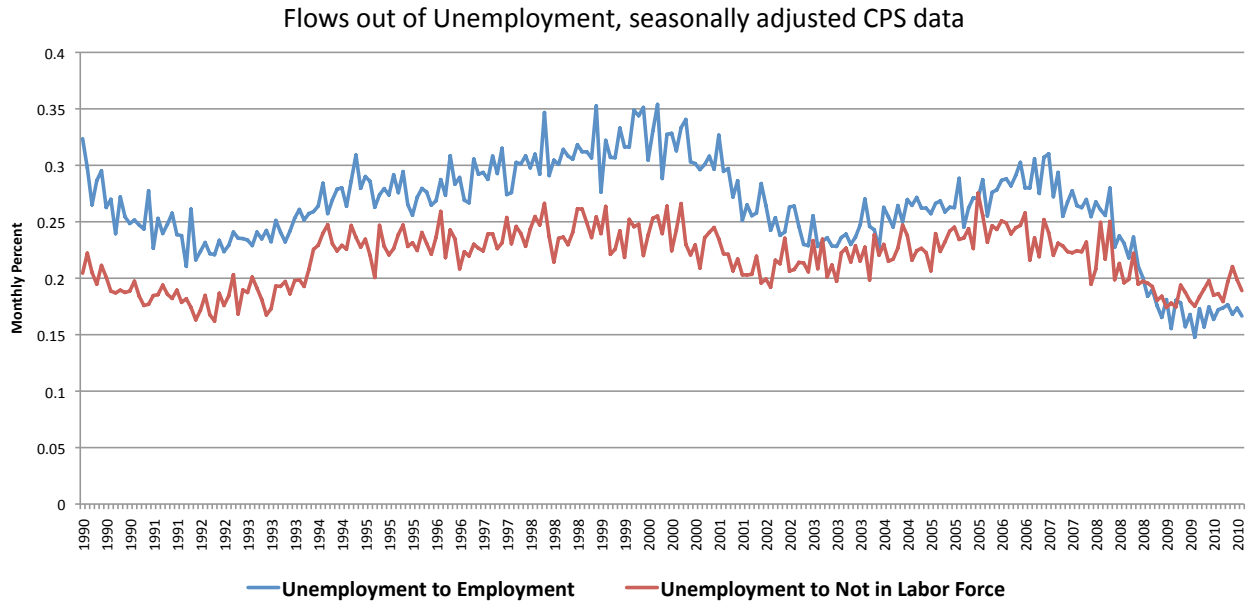
This occurs even with a major drop in the number of unemployed people who are leaving unemployment for being out of the labor force. This drop is almost certainly increased by the extensions in unemployment insurance as a result of the recession.⁶ As Till Marco von Wachter has argued, unemployment insurance induces workers to continue searching for jobs, which keeps people from disappearing out of the formal labor market, which also maintains a higher labor force participation rate.⁷

THE SITUATION FOR THE EMPLOYED

Why is unemployment so bad in this recession? There are two theories at work. The first is a story of aggregate demand. With such a deep drop aggregate demand following a financial crisis, and with households and firms needing to pay down the debt on their balance sheets, the government needs to step in and boost demand through spending. Lacking this, demand will fail to rebound and jobs will not be created.⁸

The second theory is one of a mismatch in skills. Employers need a higher-quality labor force that has the

Figures 5, 6 7:



Data: Figure 5, Bureau of Labor Statistics CPS, Seasonally Adjusted, Roosevelt Institute.
 Figure 6, Shimer (2007), "Reassessing the Ins and Outs of Unemployment," and his webpage. June 1967 and December 1975 were tabulated by Joe Ritter and made available by Hoyt Bleakley.

ability to work jobs in upcoming industries. There has been too much investment in the skills associated with housing and finance, which both saw bubbles collapse in the crisis, and the retraining workers to work new jobs takes time. Until they are retrained, those out of work will not be able to find jobs in the industries that are looking to hire. In this theory, increasing aggregate demand cannot help.⁹

In order to answer this question, we will now expand to a broader definition of unemployment that includes those who are underemployed. Specifically, we will take into account those who work part-time for economic reasons, whom the Bureau of Labor Statistics recorded as employed.

Figure 8 graphs the percentage of those employed who are working part-time for economic reasons as well as the percentage of those employed who are working part-time for economic reasons specifically because of “Slack Work or Business Conditions.” These are people who are considered employed though they work less than 35 hours a week, and the reasons they cite are not personal ones or seasonal ones but instead economic ones. We use this term interchangeably with *underemployed workers* or *underemployment*.

These values are at historical highs, especially for “Slack Work of Business Conditions” which has leveled off to a steady state not seen except for a blip in the late 1950s. The percentage of the labor force working part-time for economic reasons is among the highest values in over 50 years.

Unique Features of Underemployed Workers

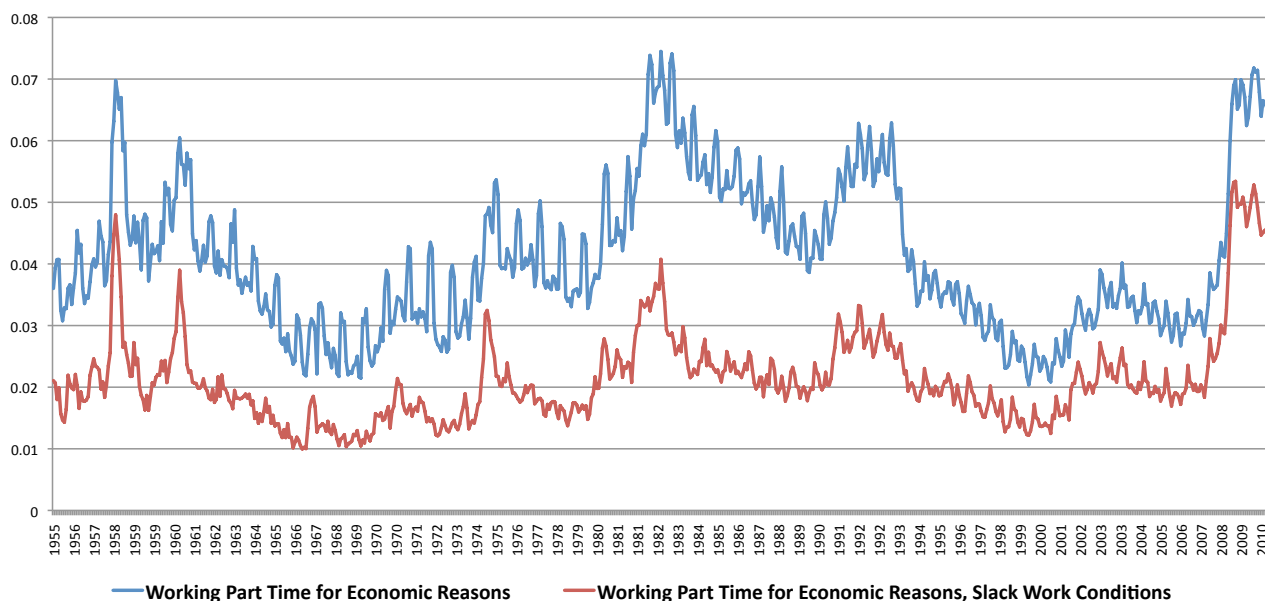
We focus on studying unemployment by only looking at the employed for two reasons. The first is that this removes the “skill” story from the picture; these employees have the skills necessary to work the first hour of their job but there just isn’t enough demand to work the 35th hour of their job. It is a curious firm that can hire someone profitably to work the 10th, 20th or 30th hour of a job but not the 35th hour solely on their skill set.

The second is that it also removes any potential work disincentives created by unemployment insurance. The debate about the effects of unemployment insurance on the unemployed is a very controversial one. Some have claimed that the increase in unemployment is largely a result of extending unemployment insurance. Others have argued that the negative effects of unemployment insurance have been largely overstated and that unemployment benefits provide a very effective form of stimulus spending.¹⁰ This debate is not relevant to those working part-time for economic reasons.

By Sector

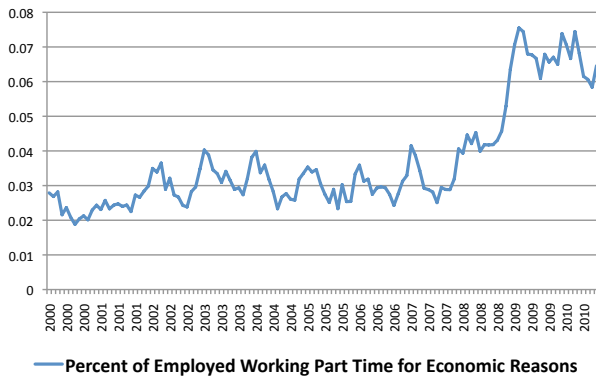
BLS provides data that allows us to look deeper and break this down by industry for the period 2000-current. Could this be a result of a hangover in finance and construction? Here is a chart of underemployment in construction and finance:

Figures 8: Percentage of Employed Working Part-Time For Economic Reasons



Data: Bureau of Labor Statistics, Roosevelt Institute.

Underemployment in Finance and Construction Sectors



The number has approximately doubled since the financial crisis and recession, and has plateaued into a new, higher, steady state.

Now let's look at how sectors that are not finance and construction did. The following is a graph that does the same calculation for a mix of 11 other sectors:

Underemployment in 11 Non Finance and Construction Sectors



The pattern is almost identical. On the next page we reproduce a chart that looks at the average underemployment between 2000 and 2007 and compares it to the average underemployment in 2010. In each of the 13 sectors we look at the ratio roughly doubles. This is a sign that underemployment is hitting every sector, not just those with hangovers from the bubble.

By Occupation

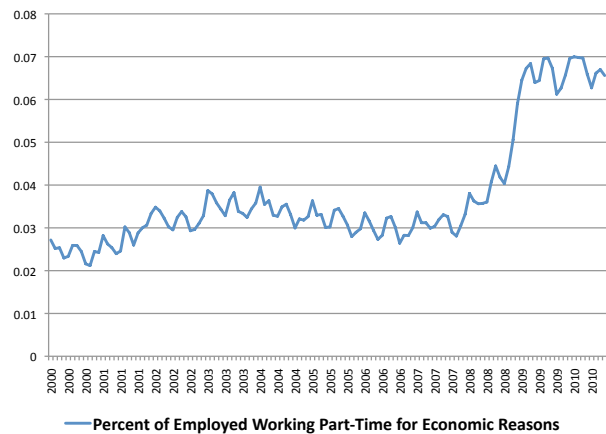
There's been a recent series of influential papers that argues that structural unemployment doesn't happen at the sector level but instead at the occupational level.¹¹

Workers, after all, don't work in sectors; they work in occupations. One can be a maintenance worker or an accountant for a manufacturing firm or for a high-tech start up. If the demand for skills moves between maintenance workers and accountants, you could see problems in all sectors, even though it's still a change in the demand for occupations.

So the real challenge here is to check for underemployment by occupations, which the BLS data allows us to do. Figure 11 also reproduces the underemployment rate for occupations as we did for sectors, where we look at nine different occupation classes and see that across the board the ratio of underemployed has increased.

This is a chart showing the underemployment ratio for all occupations:

Underemployment across Nine Occupations



As we can see from Figure 11, every one of the nine occupations we obtained data on had a doubling, at least, of underemployment. Services employees are twice as likely to be working part-time for economic reasons as they were before the recession began, for instance.

Capacity Underutilization

There is also a capacity underutilization in sectors of the economy. As a last check, we correlate underemployment by sector along with capacity utilization from 2000 to 2010 and find a very strong negative correlation for three sectors where we could match data: mining, durable goods manufacturing and non-durable goods manufacturing.

Figures 11:

Sector	Average Underemployment 2000-2007	Average Underemployment, 2010	Ratio
Mining	1.01%	1.46%	1.44
Construction	4.64%	11.49%	2.47
Durable Goods Manufacturing	1.48%	3.05%	2.05
NonDurable Goods Manufacturing	2.42%	4.09%	1.69
Wholesale and retail trade	3.44%	8.63%	2.51
Transportation and utilities	2.63%	5.03%	1.91
Information	1.82%	4.16%	2.29
Financial Activities	1.25%	2.46%	1.96
Professional and business services	3.03%	5.75%	1.89
Education and health services	2.29%	4.60%	2.01
Leisure and hospitality	6.47%	13.59%	2.10
Other Services	3.91%	8.19%	2.10
Public Administration	0.67%	1.89%	2.82
Occupation	Average Underemployment 2000-2007	Average Underemployment, 2010	Ratio
Management, business, and financial operations occupations	1.13%	2.58%	2.29
Professional and related occupations	1.73%	3.68%	2.12
Service occupations	5.69%	11.46%	2.01
Sales and related occupations	3.45%	8.11%	2.35
Office and administrative support occupations	2.17%	5.43%	2.50
Construction and extraction occupations	6.03%	15.03%	2.49
Installation, maintenance, and repair occupations	2.00%	5.00%	2.49
Production occupations	3.04%	6.03%	1.99
Transportation and material moving occupations	4.41%	8.86%	2.01

Data: Bureau of Labor Statistics, Roosevelt Institute.

Sector	Correlation Between Underemployment and Capacity Utilization
Mining	-0.57
Durable Goods Manufacturing	-0.81
Non-Durable Goods Manufacturing	-0.77

The more these sectors has people working part-time for economic reasons the more likely it is that there is capacity not being used. As capacity utilization is a standard proxy for aggregate demand the results are telling.

Conclusion

In light of these findings, it is clear that the weakness of the labor market is a generalized one and that the situation at the moment is more dire than is typically expressed in policy circles.

For as aggregate demand remains weak, there will be a continued increase in those who drop out of the labor force. The scars of unemployment show up decades later for these unemployed and absent from the labor force workers. Worse, these workers could, through a hysteresis effect, drag the long-run behavior of unemployment even higher.¹²

In light of the political climate and the impending elections, government officials may be loath to address this problem frontally. Such an approach, while politically expedient may be disastrous for the economy and for social welfare.

If the issues of long term unemployment and the large number of people dropping out of the labor force are not addressed soon then what is an aggregate demand problem can become a structural problem through hysteresis effects. Officials need to act in a bold and imaginative manner to repair the labor markets dysfunctions-much as Roosevelt did-or risk entrenching the social misery that engulfs many Americans today.

Endnotes

1 Bureau of Labor Statistics, BLS Information, Glossary, online at <http://www.bls.gov/bls/glossary.htm>. Depiction

for labor market Figures 1 and 2 inspired by Davis, Faberman and Haltiwanger, "The Flow Approach to Labor Markets: New Data Sources and Micro-Macro Links" (2006) and Fallick and Fleischman, "Employer-to-Employer Flows in the U.S. Labor Market: The Complete Picture of Gross Worker Flows", (2004).

2 See Freeman (2007), "America Works: Critical Thoughts on the Exceptional U.S. Labor Market", and Cahuc and Zylberberg (2009) "The Natural Survival of Work: Job Creation and Job Destruction in a Growing Economy."

3 See Issues in Labor Statistics, "Long-term unemployment experience of the jobless," U.S. Bureau of Labor Statistics, June 2010.

4 See, to start, van den Berg, and van Ours, "Unemployment dynamics and duration dependence," (1996).

5 For additional details, please see Shimer (2007), "Reassessing the Ins and Outs of Unemployment," and his webpage <http://sites.google.com/site/robertshimer/research/flows>. The data from June 1967 and December 1975 were tabulated by Joe Ritter and made available by Hoyt Bleakley.

6 For a history on the battle to extend unemployment insurance in this recession, see Annie Lowrey, "For Senate Advocates of Unemployment Insurance Extension, a Battle to Nowhere," Washington Independent 7/1/2010.

7 See Till Marco von Wachter, "Unemployment insurance and the long-term effects of layoffs," Presentation at the Economic Policy Institute, May 28, 2010.

8 See Christina D. Romer, "Not My Father's Recession: The Extraordinary Challenges and Policy Responses of the First Twenty Months of the Obama Administration," National Press Club, September 1st, 2010.

9 See Narayana Kocherlakota, "Inside the FOMC," Federal Reserve Bank of Minneapolis, August 17th, 2010.

10 For speculation on the effects of unemployment insurance in this recession, see Robert Barro, "The Folly of Subsidizing Unemployment, Wall Street Journal, August 30th, 2010. For evidence on unemployment insurance as a liquidity issue and not a work disincentive issue, see Raj Chetty, "Should Unemployment Benefits be Extended? An Economic Framework and Empirical

Evidence,” May 2010. For evidence of the stimulus impact of unemployment insurance, see Mark Zandi, “The Economic Impact of the American Recovery and Reinvestment Act,” January 21, 2009.

11 See, to start, Iouri Manovskii, “Occupational Mobility and Wage Inequality,” April 2009.

12 See Oreopoulos, von Wachter and Heisz, “The Short- and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates,” (2006) and Laurence Ball, “Hysteresis in Unemployment: Old and New Evidence,” (2009).

The views and opinions expressed in this paper are those of the author and do not necessarily represent the views of the Roosevelt Institute, its officers, or its directors.

Special thanks to Padma Krishnan for valuable research assistance and Bryce Covert for editorial content. Additional thanks to Will Ambrosini and David Wiczer for discussion, Arindrajit Dube for comments and Robert Shimer for graciously sharing his data.