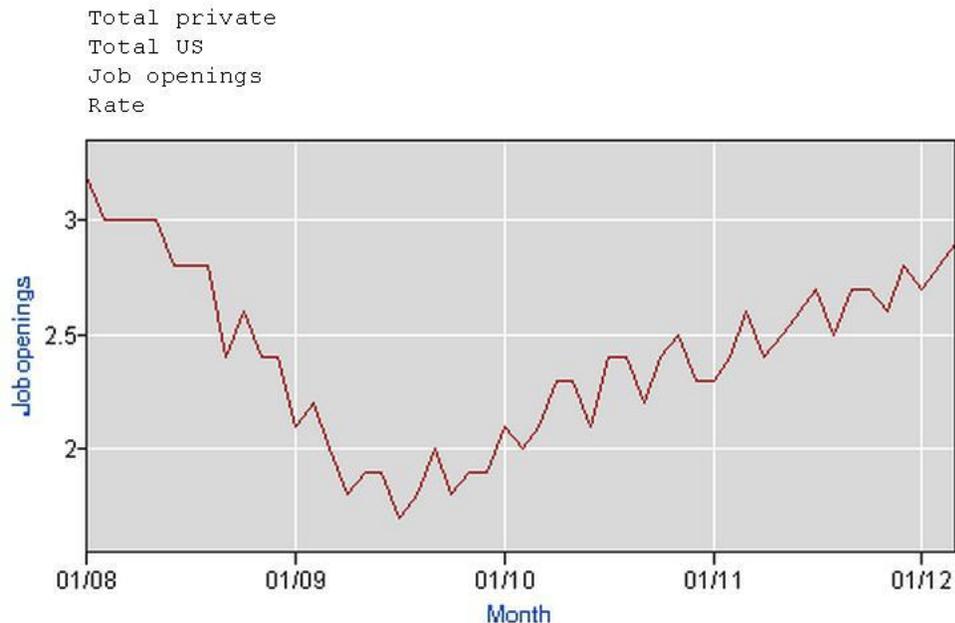


## Mitchell's Musings 5-14-12: Quantum Unemployment

Daniel J.B. Mitchell

I claim no expertise in advanced physics. But I am under the impression that in the world of quantum mechanics, things can be in more than one state, depending on observation. In that sense, there may be a quantum aspect to unemployment in the contemporary labor market.

The U.S. Bureau of Labor Statistics (BLS) recently released its monthly JOLTS report<sup>1</sup> which includes a measure of the private-sector vacancy or “job openings” rate:<sup>2</sup>



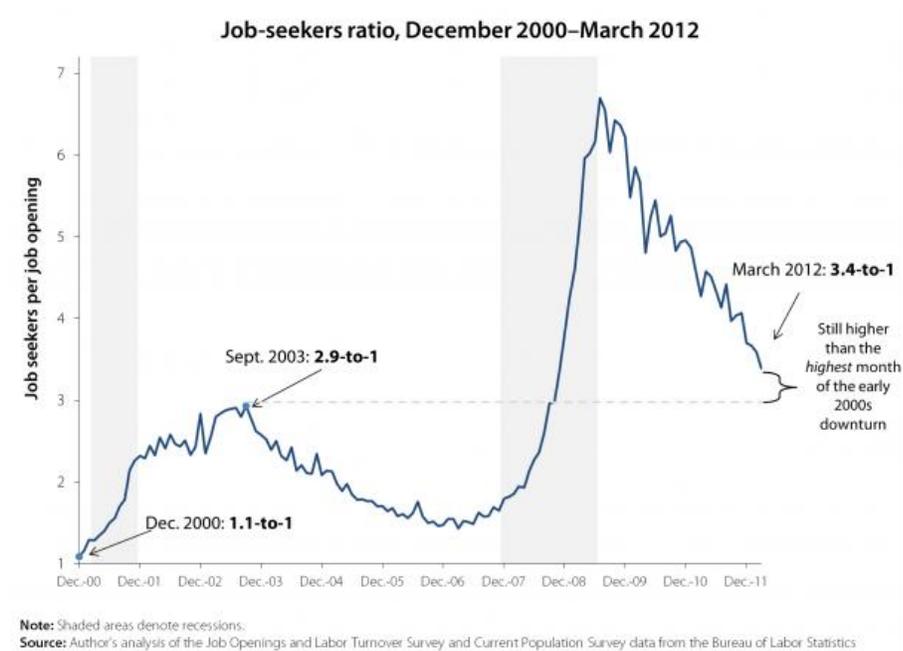
As the chart above shows, the vacancy rate plunged during the Great Recession of 2008 but – as recovery got underway – began to climb. A report last week from the Employment Policy Institute (EPI) looked at the ratio of unemployed job seekers to available vacancies and found

<sup>1</sup> JOLTS stands for Job Openings and Labor Turnover Survey. The latest BLS release is at <http://www.bls.gov/news.release/pdf/jolts.pdf>. The chart above was produced from the BLS JOLTS database.

<sup>2</sup> A job opening requires that: 1) a specific position exists and there is work available for that position, 2) work could start within 30 days regardless of whether a suitable candidate is found, and 3) the employer is actively recruiting from outside the establishment to fill the position. Included are full-time, part-time, permanent, short-term, and seasonal openings. Active recruiting means that the establishment is taking steps to fill a position by advertising in newspapers or on the Internet, posting help-wanted signs, accepting applications, or using other similar methods. The job openings rate is the number of job openings on the last business day of the month as a percent of total employment plus job openings.

that while the number of job seekers per available job remained high, it has been coming down, as the chart below from that report indicates. When you eyeball the chart, it seems apparent that the cause of the current problem in the labor market was the fall off in demand during the Great Recession. And the recovery – with its rising demand – is slowly undoing the damage.

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Source: Heidi Shierholz, “The Odds of Finding a Job are Improving, but are Still Stacked Against Job Seekers,” Employment Policy Institute (EPI), May 8, 2012. Available at <http://www.epi.org/publication/job-seekers-ratio-may-2012/>.

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Despite what appears to be a demand (or lack of demand) phenomenon, there has been a persistent view that the unemployment problem today has become “structural,” i.e., not curable by demand expansion because the skill set of job seekers does not match the skill needs of employers. In a recent blog post, columnist and Nobelist Paul Krugman cited a similar development in thinking during the Great Depression of the 1930s when structural stories became widespread until the demand expansion of World War II came along.<sup>3</sup> At that point, the unemployment rate rapidly fell to historically low levels and structuralism disappeared.

<sup>3</sup> Paul Krugman, “A Structural Blast From the Past,” May 9, 2012. Available at <http://krugman.blogs.nytimes.com/2012/05/09/a-structural-blast-from-the-past/>

However, you don't need to go back as far as the Great Depression to find the tendency to interpret periods of labor market slack as being structural. After the Korean War ended, a series of recessions and a soft economy produced the "Automation Scare," basically a story that computers and other technical advances had made many workers obsolete. But the demand expansion that accompanied the Vietnam War in the late 1960s led to a sharp drop in unemployment. Talk about structural unemployment then disappeared until the mid-1970s when a severe recession raised the unemployment rate.

History tells us, therefore, that whenever abnormally high unemployment persists after a negative demand shock, the structural explanation will (re)appear. But can it be true simultaneously that there is both structural unemployment present in the labor market and also that a positive demand shock would get rid of it? In other words, can there be a quantum state of unemployment so that two seemingly different states can exist, depending on who is doing the observing and interpreting?

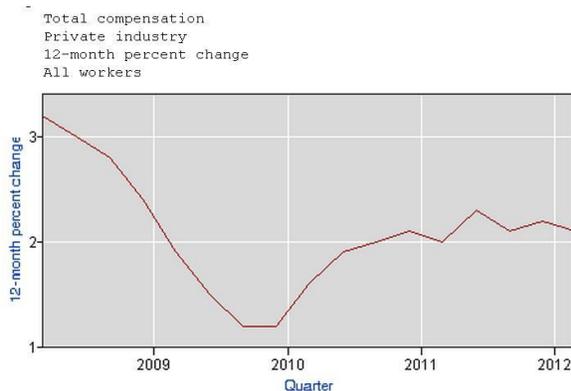
Each era of structural unemployment explanations has its own unique underlying stories, depending on the technology and on the changes in industry mix of the period. The current story notes that the U.S. had a housing boom in the mid-2000s associated with flaky mortgages and a home price bubble. So while it lasted, many workers were engaged in construction and related activities. Given the post-bubble overhang in excess housing, however, these jobs will not be needed for a long time and so the displaced workers now need job skills which they don't have. The skills they need, so the story goes, are associated with other occupations and industries, including those in the high-tech world. It seems plausible. And if one were looking for statistical evidence of a structural problem, such evidence can be found, depending on how you look at the data.

The same survey that gave us the charts shown above can be reinterpreted in a structural fashion. For example, in the first quarter of 2012, the vacancy rate (job openings rate) stood at 2.8%. The last time it stood at that level was in the last quarter of 2001. But in the last quarter of 2001, the unemployment rate was only 5.5%, compared to 8.3% in the first quarter of 2012. Indeed, it is that shift in the relation between those two rates that caused the higher ratio of job seekers to available jobs in the later period compared to the earlier. If there are so many more job seekers out there today than there were in 2001, how can the vacancy rate be the same in the two periods? Why don't employers just fill their vacancies quickly with all the

surplus labor in the market? The answer must be structural, i.e., there really isn't a surplus of labor with the right skills. Or so it may seem.<sup>4</sup>

The problem with the structural skill-mismatch story, plausible though it may seem, is that *there is nothing in that story that tells you how readily employers would adapt if demand were notably higher and they had to make do with the available labor supply.* When we have had periods in which chronic unemployment has melted away, what happened was that employers provided training, relaxed hiring standards, and did what they needed to do to get product out the door.<sup>5</sup> A high-pressure economy, when it developed, eliminated the skill mismatch.<sup>6</sup>

Usually, proponents of structuralism cite the danger of inflation if attempts are made to bring down unemployment via demand stimulus. The notion is that even though the unemployment rate is high, because of the lack of needed skills among the unemployed, there is really a potential labor shortage. If demand is pushed up, employers will start bidding up the wages of the relative few workers with the needed skills. It is true that pay, on a total compensation basis, is now rising somewhat faster than at the bottom of the recession. But we are looking at an annual rise in pay of a little over 2% with no signs of a sustained upward trend over the past year.



<sup>4</sup> In technical terms, if at the same vacancy rate, the unemployment rate is now higher than it was in 2001, that development suggests a rightward shift in the Beveridge Curve, the inverse statistical relation expected between the two rates. A rightward shift suggests a greater mismatch between worker skills and employer skill needs.

<sup>5</sup> In the technical terminology of the previous footnote, the Beveridge curve readily shifts back to the left in the face of a positive demand shock.

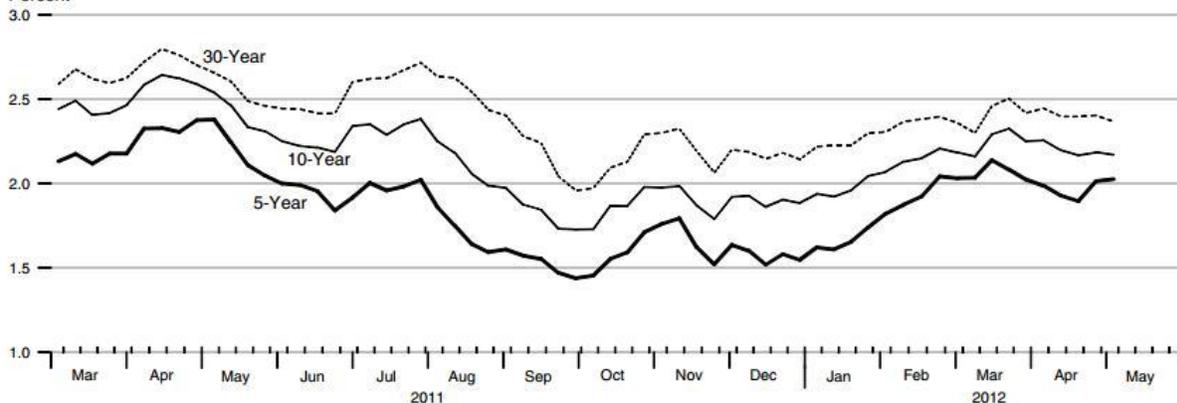
<sup>6</sup> The phrase “high-pressure economy” was coined by the late Arthur Okun in his analysis of the sharp fall in unemployment in the late 1960s. Arthur M. Okun, “Upward Mobility in a High-Pressure Economy,” *Brookings Papers on Economic Activity*, 1973:1, pp. 207-252.

Financial markets do not seem to be anticipating a burst of inflation despite the gradually declining unemployment rate. One index of such anticipation is the spread in yields between U.S. Treasury securities which are not adjusted for inflation and those which are so adjusted. As the chart below shows, despite the vagaries of such markets, the expected inflation rate as measured by the Consumer Price Index over various period lengths seems to be in the 2.0 to 2.5% range. Apparently, financial markets are not expecting an inflation problem, despite the talk about structuralism in the labor market (and all of the worries that have floated about concerning budget deficits and monetary expansion).

### Inflation-Indexed Treasury Yield Spreads

Averages of Daily Figures

Percent



Research Division  
Federal Reserve Bank of St. Louis

The lesson is that we are in a period of quantum unemployment and we have been there before. Someone who defines structuralism in the labor market in terms of a skills mismatch can find it anecdotally (the workers who used to be in house construction that are no longer needed). He or she can find structuralism by using BLS data on vacancy rates vs. unemployment rates. But someone else can see demand insufficiency in the same data and can assert that - based on earlier episodes going back to the Great Depression - the mismatches would melt away in the face of sufficient demand. At present, financial markets are not projecting a burst of inflation of the type that would be expected if the declining unemployment rate were bumping up against some severe structural barrier. Those markets are literally betting on low inflation.