Daniel Altman writes: Daniel Altman writes: Despite moderate growth in the economy and historically low interest rates, the American labor market still hasn't fully recovered since the big hit of the global financial crisis. True, the unemployment rate has fallen by 3.8 percentage points since its peak in 2009, but the percentage of Americans employed has barely changed. At last week's conference in Jackson Hole, Wyoming, Federal Reserve Chair Janet Yellen and other worthies lamented the difficulty of using monetary policy to address this problem. But the questions they should be asking are more fundamental.

The story of the American economy -- and the global economy in general -- is one of constantly increasing efficiency. In many industries, improvements in technology have helped put more capital at the service of fewer workers while still achieving a higher level of output. This is what makes workers more productive and raises incomes. In theory, the workers no longer needed by employers because of greater efficiency are freed up to do other jobs with similarly high productivity.

The problem is that those other jobs haven't always been available. To create them, either existing companies must grow or new companies must form. Let's consider each of these possibilities in turn.

If existing companies increase efficiency more quickly than their markets are growing, then they may still shed workers; new technology allows them to keep up with rising demand, even as they shrink their payrolls. Moreover, if existing companies expand by sending production overseas, then rising demand will do little to improve job prospects for Americans.

In fact, existing companies are not growing or producing nearly as much as they could.

American businesses including Apple, Google, and Oracle sit on piles of cash that in total amount to more than \$1 trillion. If Apple thought it profitable to invest this money, surely it would. But it apparently does not see a viable strategy for such growth. Even companies without hoards of money sitting on the sideline are operating well below capacity; as I've written before, much of their physical capital sits unused.

The news from new companies is not much better. There is increasing evidence that innovation and entrepreneurship, the cornerstones of the modern American economy, are becoming less prevalent. A recent paper by the Federal Reserve Bank of Chicago suggests that a drop in business formation since 2007 may be costing the nation hundreds of thousands of jobs each year, with no turnaround in sight.

Indeed, the private sector in the United States has been consolidating rather than expanding in the past few decades. The average payroll at an American company is about 50 percent higher now than in 1977, as I have written. In other words, there have been progressively fewer businesses per worker, and those business have gotten much bigger. This hinders innovation too, since bigger organizations tend to have more vertical

hierarchies. The more layers in the organization, the tougher it is for new ideas to percolate to the top.

In this environment, low interest rates may not be enough to boost employment. Some firms could find it easier to replace and renew old capital, and new firms may find the cost of raising money more bearable. But stricter lending policies among banks have dulled this effect, stifling the growth of small businesses. Overall, however, the case for hiring in the United States -- or, indeed, for any major expansion of their production here -- is clearly a difficult one to make for many American companies.

So what is to be done? Given the current inequality of opportunity pervading American society -- especially for non-whites and children of unwed mothers -- the economic potential of a large share of the population is likely going untapped. This waste of human resources can be corrected by investing in early-childhood education, urban development, health care, and other social supports.

Another part of the solution is increased funding for scientific research, which has formed the basis for much American innovation since the dawn of the Cold War. But the budget for the National Science Foundation has never been as high, as a share of gross domestic product, as it was in the 1960s -- except for a spike from the recent fiscal stimulus. Under current trends, it will take decades for the United States to reach the heights of half a century ago, when much of the bedrock for current technologies ranging from cellular phones to the Internet was laid.

That's unfortunate, because not many private firms would risk their capital on a project that might not bear fruit for three decades, if ever. Not all research has an obvious endpoint in a consumer application; an important role of public funding is to lay the scientific foundations for these future innovations. These long-term investments in science and education can go some way toward helping the economy today -- they do represent immediate spending, after all -- but they might not stop the bleeding of workers from the labor market in the short term.

As a quicker solution, the United States might consider reducing or dropping its corporate income tax, whose rate is 35 percent for most big companies. One reason for those big cash piles may be companies' unwillingness to bring back profits earned abroad; instead, they borrow locally at low rates. (Interestingly, this phenomenon completely upends the traditional argument that corporate income taxes give companies an incentive to spend profits rather than sit on them.) Lower tax rates could bring some of that money back and discourage companies from fleeing to other, lower-tax jurisdictions.

Discarding the corporate income tax, as I have advocated before, would require a broader reform of the tax code to ensure a steady stream of revenue to the Treasury. Yet the current dysfunction in Washington makes such far-reaching legislation a dim and distant prospect. And that's a shame, because the stubborn weakness of the labor market is a problem in the here and now. Yellen and her colleagues know this, but they may simply lack the tools to deal with it.