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Creating Jobs Through Exports and Innovation: 9 Steps Congress Can Take to Foster Sustainable Job Creation

BY ROBERT D. ATKINSON | DECEMBER 3, 2009

With unemployment north of 10 percent, there is renewed interest in Washington in a job creation agenda. With limitations of both time and money though, the tools available to policymakers are more constrained than they were a year ago when Congress passed the American Recovery and Reinvestment Act. However, there are low-cost steps that policymakers can and should take to ensure that the U.S. economy returns to full employment sooner than otherwise. Clearly, Congress should take steps such as continuing unemployment benefits and COBRA, and making it clear that federal aid to states for unemployment insurance is contingent upon states letting unemployed workers in Workforce Investment Act (WIA)-qualified training be eligible to collect UI benefits.[1] And the Administration should take every possible step to pressure federal agencies to spend all of the stimulus funds as quickly as possible, ideally in the first half of 2010. But more will be needed, and to that end Congress should also put in place measures which not only give a quick shot in the arm to job creation, but also boost exports and innovation, thus laying the groundwork for longer-term prosperity and competitiveness. This webmemo identifies nine steps Congress and the Adminitration should take.

JOB CREATION POLICY PRINCIPLES

There are at least three principles which policy makers need to consider if job creation policies are to be most effective:

1. **Policies need to change private sector behavior.** If government wants to spur sustainable job creation it needs to find policies that will convince companies to create jobs. At first glance a policy that appears to be gaining traction—providing a credit against an organization's Social Security taxes for jobs it creates—would seem to fit this bill.[2] But unless job creation tax credits are very large, which under current proposals they are not, they will do little to induce organizations to hire more workers.[3] Organizations hire more workers if they believe that the demand for their products or services is going to increase enough to create work for the added worker, not if the government offsets the cost of a new employee by a small percentage. This is evident at the state level where approximately 22 states have job creation tax credits, but where the evaluation of some of the programs suggest that they are relatively ineffective. For example, when the state of North Carolina evaluated

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their William S. Lee Act job creation tax credits, they found that only about 4 percent of jobs claimed under the Act were actually induced by the tax credits.[4]

In contrast, funding that would otherwise go toward job creation tax credits would be better spent on incentives to spur greater investment in research or new capital equipment, or incentives to relocate jobs to the United States. In contrast to the decision to hire another worker to an organization, these kinds of decisions are much more sensitive to marginal differences in costs. Firms evaluate a range of investments in research and equipment based on expected rate of return, and if the after-tax rate of return increases, they will invest in more projects, thereby creating more jobs. For example, studies show that federal R&D tax credits produce at least one dollar of R&D for every dollar of forgone tax revenue and state R&D incentives generate even larger impacts.[5]

2. **Policies should support increased exports and innovation.** In an economy which also faces key challenges going forward in the moderate to long term in areas such as the need to increase international competitiveness, raise productivity, and reduce greenhouse gas emissions, any jobs bill should ideally also at least in part help address these challenges. It's not enough to just consider the number of jobs created, policymakers should be sensitive to the types of jobs created. Jobs in areas that boost innovation (including in energy) pay more than jobs in other sectors, and are clearly superior to jobs that do not. Federal Reserve Chairman Bernanke acknowledged as much when he stated that "investments in human capital, education, research and development, new technologies, energy, and infrastructure were important for long term growth."[6] Likewise, jobs in exporting firms pay 9.1 percent more than jobs in firms that export less.[7]

3. **New spending should be deficit-financed.** If spending measures are financed by offsetting spending cuts or tax increases (or user fees or other revenue raisers), any expansionary impact would be largely offset. It is for this reason, for example, that spending more money on roads and bridges would not create net new jobs if it's funded by an equal increase in the gas tax. Conversely, increasing the gas tax would not reduce jobs if the revenue were invested in roads.

POLICIES TO CREATE JOBS

Besides monetary policy measures (which have largely been exhausted) there are only a few tools government has to create jobs in the near term. It can increase spending (either through more direct expenditures or tax expenditures or accelerating this spending to the near future when unemployment is high and reducing the related expenditures later). It can provide assistance to companies to help them innovate, export or invest. And it can reduce regulatory barriers that limit business expansion. Toward that end, there are two major areas of opportunities that will not only lead to job creation, but will be sustainable and have longer-term impacts on U.S. competitiveness and standard of living: reducing the trade deficit and boosting innovation.

Reduce the Trade Deficit

While expanded trade does not itself create jobs, expanding exports faster than imports does. And with the United States running an out of control trade deficit ($706 billion in 2008), the opportunity for exports to grow faster than imports is significant. In fact, between 2007 and 2009, exports have grown faster than imports, countering the contractionary forces in the economy. Moreover, exports have a bigger impact on jobs than domestic growth. Kletzner finds that within an industry, a 10 percent increase in sales due to exports leads to a 7 percent increase in employment, while a 10 percent increase in domestic demand leads to just a 3.5 percent increase in jobs.[8] Reducing the trade deficit (e.g., boosting exports and/or reducing imports) can thereby be an effective job creation strategy. There are a number of steps policy makers could take now that would lead to a reduction in the trade deficit over the next two years.

1. **Stop defending the dollar.** One reason for the recent relative improvement in the trade balance is that the dollar has weakened against many currencies (although not against China which continues to manipulate its currency in order to subsidize exports and penalize imports). In this context, a policy of defending the dollar, which the current[9] and recent past Treasury Secretaries have championed, is by definition a policy to sup-

port a high U.S. trade deficit, not to mention a policy that presumes that government is better at setting prices than the market. To argue, as Secretary Geithner does, that there is "no contradiction between the U.S.'s policy of bolstering its exports and its strong-dollar policy" is to ignore the fundamentals of economics.[10]

By working to convince and pressure other nations to not sell off dollar reserves, the current Treasury Secretary is working against having the U.S. trade deficit decline. While a strong dollar is beneficial to importers and to those holding debt (such as the U.S. Treasury and Wall Street), it is detrimental to exporters, particularly manufacturers, and borrowers. Taking a clear and aggressive stance that the U.S. trade deficit represents a threat to U.S. jobs and the prosperity of future generations and that the United States government will not defend the dollar and expects other nations to stop subsidizing their exports through currency manipulation is perhaps the most effective measure to create U.S. jobs in the short run—and U.S. competitiveness in the long run.[11] For those who argue that a weaker dollar will reduce growth due to higher interest rates, this ignores the fact that any possible contractionary effect of a weaker dollar (from possible interest rate increases) would be more than offset by an expansion in jobs from more exports.

2. **Expand funding for trade enforcement at USTR.** As ITIF has documented, many nations are engaged in a wide array of unfair trade practices targeted at boosting exports, particularly in high-value added sectors, such as technology industries.[12] These include discriminatory tariffs and taxes, export subsidies, intellectual property theft, blocking market access by foreign firms, and use of regulations and laws (including antitrust) to discriminate against foreign firms. Unfortunately, U.S. trade policy does relatively little to fight these practices which kill American jobs, preferring instead to focus largely on opening markets through new trade agreements. Enforcement of existing agreements gets short shrift at best. It is time for the United States to go on the offensive when it comes to fighting foreign mercantilist practices. The Obama administration can do some of this by redeploying some existing USTR resources toward enforcement. However, Congress can and should help by increasing funds for trade enforcement and restructuring USTR so it is more focused on enforcement, as the Trade Enforcement Act of 2009 proposes to do.[13]

3. **Temporarily expand funding for federal and state export assistance programs.** One reason for the significant trade deficit is that compared to other nations, the United States provides relatively little assistance to help companies export. Many firms, particularly small and mid-sized firms, have the capability to export more, but lack the knowledge or time to negotiate the often complex process of accessing export markets. In response to this challenge, most of the 50 states have established export assistance programs.[14] And most of this help goes to small and medium sized business.[15] Unfortunately, while many of these programs are effective, they are significantly underfunded. One reason is that the benefits from increased exports flow to many states, not just the state in which the exporting firm is located. This is because when a firm increases exports it buys more from its suppliers, which are usually located across many states. Because states don't capture the full benefits of their export assistance efforts, there is a compelling reason for the federal government to help fund these efforts. For that reason, Congress should create a temporary, two year matching export assistance fund in the Department of Commerce's Economic Development Administration, funded at $250 million per year. In addition, it should increase funding for the Department of Commerce's Commercial Service programs and tie those increases to a reduction in the fees charged to businesses participating in trade promotion activities. As a longer-term effort, Federal export assistance efforts should be dramatically overhauled, replacing the agency-by-agency approaches[16] with a unified federal-state export promotion partnership.

4. **Provide incentives for companies bringing back work from offshore to high unemployment areas.** Some companies with facilities in the United States and offshore may shift work back to the United States if provided with modest incentives to do so. Toward that end, the America Recruits Act of 2009, introduced by Senator Mark

Warner (D-VA) provides forgivable loans for companies that expand employment in high unemployment counties by bringing back jobs from overseas. The legislation would create a program administered by the Economic Development Administration to work with states to provide loans to companies of $5,000 per job in the first year, and $4,000 per job in the second year. The loans would be forgivable if the company creates and retains the jobs promised. It is important to note that the difference between this kind of proposal and simple job creation tax credits is that this is targeted at influencing the location of a job that has already been created, rather than at getting a firm to create a new job.

Boost Innovation

Innovation has been shown to be the central driver of economic growth and improved quality of life. But innovation also brings with it valuable impacts on jobs. Innovation enables the development of new firms that in turn create new jobs. Moreover, jobs in technology industries are better than average jobs, paying 90 percent more than jobs in the rest of the economy.[17]

There are a number of steps policymakers could take now that would boost innovation and job creation related to it.

5. **Provide a bonus R&D tax credit for 2010 and 2011.** The research and experimentation tax credit has been shown to be effective at spurring research, and research has been shown to be a key to boosting economic growth.[18] Increasing the R&E tax credit will spur companies to perform more R&D in the United States, reducing layoffs of scientific and technical personal, and in many cases enabling companies to expand research employment. In addition, by maintaining or expanding research investments, companies will be better positioned to innovate and compete successfully in international markets.

   To help companies maintain their research investments in the downturn, Congress should increase the Alternative Simplified Credit from 14 percent to 20 percent for expenditures made in 2010 and 2011. And if companies expand the number of research jobs in the United States in 2010 and 2011, the rate should be doubled to 28 percent. In addition, in order to assist companies that are losing sales and do not have profits to take against the credit, Congress should allow firms for the next two years to take the credit against their non-corporate income taxes if they choose to.[19]

   Other nations have taken similar steps during the current downturn. For example, the Dutch government increased its R&D tax credit by 33 percent for fiscal years 2009 and 2010 and it allows companies to take the credit against their government employment taxes, not their corporate income taxes. As a result, companies which are losing money during the recession and have no corporate income tax liabilities can continue to take the credit, helping them to maintain, if not increase, research investments and research employment.[20]

6. **Allow IT investments to be expensed in 2010.** IT investments produce outsized productivity gains, spurring higher real wages.[21] Companies in the United States invest around $400 billion per year in IT equipment and software, but these investments must be depreciated over a number of years. Allowing companies to write off all the costs for tax purposes in 2010 would raise the rate of return of new equipment and software, spurring companies to invest more and thus more rapidly turn over older, less productive equipment and software. As a result, companies would not only boost their productivity and international competitiveness, they would be using equipment that would both be safer for workers and be more energy efficient. While some will argue that investment tax incentives have little or no effect until consumer demand starts to grow and companies ramp up production to meet this demand, this mischaracterizes the impact of expensing. For while it's true that companies may not expand overall capital equipment levels until sales of goods or services start to expand, companies will replace old equipment with new, even if they do not see sales rising, as long as they believe that the new equipment will perform better than old and that the rate of return on the investment is adequate. Allowing companies to expense IT investments will make more investments turn the corner on profitability,

leading businesses to make more of them. Expensing also means that companies will pay lower taxes now while unemployment is high and higher taxes in the out years when unemployment is lower.

Other countries have taken this approach to boost jobs and productivity. For example, recognizing the importance of IT equipment and software to the economy, the Canadian government has provided a temporary 100 percent first year expensing of expenditures on new computer hardware and software systems acquired after January 27, 2009, and before February 1, 2011.[22]

7. **Provide $500 million to universities that invest in needed research infrastructure in 2010.** Research universities are a key component of the innovation economy.[23] But to play that role effectively, they need state-of-the-art research equipment, such as DNA analysis equipment for cancer research, nanoengineering research facilities for new materials and systems, and supercomputers to create virtual reality environments. Unfortunately, the National Science Board reports, "Over the past decade, the funding for academic research infrastructure has not kept pace with rapidly changing technology, expanding research opportunities, and increasing numbers of users."[24] As a result, they recommend that Congress appropriate an additional $2 billion per year to provide scientists and engineers with advanced tools, facilities, and cyberinfrastructure. As part of the American Recovery and Reinvestment Act of 2009, Congress did appropriate $400 million to the Major Research Equipment and Facilities Construction program within the National Science Foundation (NSF). While helpful, these funds did not come close to meeting the backlog in needed research equipment funding. As such, Congress should allocate an additional $500 million to the program and require NSF to allocate all of the funds by the end of 2010. Allocating $500 million to this program would create or retain approximately 5,900 jobs for one year.[25]

8. **Allocate $1 billion for grants to support private sector researchers to take 18 month sabbaticals in universities or federal laboratories.** Companies are projected to cut R&D during this recession, and likely also lay off valuable scientists, engineers and technical talent. One way to prevent the loss of this talent is to develop an R&D furlough grant program. This would be modeled after a successful program in the Netherlands. Fearing that if researchers were laid off companies would not later rehire them, the Dutch government established a program to compensate the wages of private sector researchers for 18 month fellowships at universities or national laboratories. To qualify for the program, companies had to have a decline in sales and continue to pay 10 percent of the researchers' salary, with the government picking up the remaining 90 percent. The host institution (university or federal lab) must cover overhead expenses. The Dutch government has allocated $180 million euros and has been able to support 2,000 researchers for 18 months. If the United States were to provide the same amount on a per-GDP basis it would have to allocate over $6 billion dollars.

9. **Provide funding of $2 billion to state economic development agencies to help high-growth businesses start and grow.** During the recovery, most of the job gains are likely to come from "gazelle" firms, defined as firms that double in size in four years. One study estimates that such gazelles are responsible for 80 percent of the jobs created by entrepreneurs.[26] Programs to help such firms with early stage financing, technology transfer, and business incubation and other programs can help nurture the next generation of gazelles. While the private sector will play the most important role, there is a role for government, particularly given the credit challenges in the economy. For example, there is evidence that the venture capital industry is shifting its funding away from smaller, earlier-stage deals to larger, later stage ones.[27] Moreover, the Federal Reserve reports that smaller firms face "substantial constraints in their access to credit." But while federal government can and does play a role in interacting directly to help gazelles (e.g., the Small Business Innovation Research program, National Institute of Standards and Technology's Technology Innovation Program, etc.), states generally are more active, having closer relationships with small and mid-sized companies in their states. And most states have a variety of initiatives to help potential high-growth firms, including seed capital and

loan programs, tech-transfer programs, and business incubation programs. But these state efforts, like their export assistance programs are, generally underfunded. As such, the federal government can help by providing matching funding to states to expand these programs in 2010 and 2011 when they are needed most. To be eligible for the funding, states would have to match it on a one-to-one basis, use the funds to support potential high-growth firms, and not use the funds to engage in recruiting firms from other U.S. states.

CONCLUSION

While economic growth may finally be recovering, most economic forecasts suggest that job creation will lag behind and that it will be at least several years before the U.S. economy regains full employment. The human and economic costs of this lag are likely to be significant. As such, Congress and the Administration should take steps now to reduce unemployment and create jobs.

But they should do so in a way that also spurs long-term innovation and competitiveness. For there is a compelling argument that can be made that it was the lack of innovation and competitiveness in the U.S. economy in this decade that made the crisis worse than it would otherwise have been, for the lack of innovation-based investment opportunities meant that hundreds of billions of dollars (much coming from China) went into subprime mortgages and other largely unproductive investments, many of which defaulted. At some point this immediate business cycle-based economic crisis will pass and the United States will then be confronted with only one economic crisis – a structural competitiveness one where we are losing ground rapidly to other nations in innovation-based economic activity.[28] As such, Congress and the Administration need to also begin to give thoughtful attention to long-run competitiveness/employment issues (e.g. technology policy, education, strategic investments, etc.) that can help prevent our nation from finding itself in similar employment crises in the future.

ENDNOTES

1. In many states, workers are only eligible to collect UI benefits if they are actively looking for work. However, in this economy it is clear that many workers will not be able to get jobs regardless of how hard they look. Both they and the economy would be better off if they were enrolled in certified job training programs so that when jobs do come back, they have higher skills. See Robert Atkinson, "Modernizing Unemployment Insurance for the New Economy and the New Social Policy," Progressive Policy Institute, Washington, D.C., February 2002, http://www.ppionline.org/documents/Unemployment_Feb02.pdf.

2. Timothy Bartik and John Bishop, " The Job Creation Tax Credit," The Economic Policy Institute, October 20, 2009, http://www.epi.org/publications/entry/policies_to_create_jobs/.

3. The Economic Policy Institute, for example, proposes a 15 percent job creation tax credit.

4. William Schweke, "'You Want Employment? We Will Give You Employment!' or Do Better Job Creation Subsidies Hold Real Promise for Business Incentive Reformers?," Corporation for Enterprise Development, February 2004, http://www.hhh.umn.edu/img/assets/6158/schweke_paper.pdf.

5. Robert D. Atkinson, "The Research and Experimentation Tax Credit: A Critical Policy Tool for Boosting Research and Enhancing U.S. Economic Competitiveness," Information Technology and Innovation Foundation, Washington, D.C., September 2006, http://www.itif.org/files/R&DTaxCredit.pdf.

6. Ben Bernanke, "Education and Economic Competitiveness," Speech presented at the U.S. Chamber Education and Workforce Summit, September 24, 2007, http://www.federalreserve.gov/newsevents/speech/bernanke20070924a.htm.

7. J. Bradford Jensen, "Business Service Exporters," Washington, D.C.: Peterson Institute Working Paper, 2007.

8. Lori Kletzner, Imports, Exports and Jobs. Kalamazoo: W.E. Upjohn Institute for Employment Research, 2002, 11.

9. Takashi Nakamichi, "Geithner Affirms Strong Dollar Policy," *Wall Street Journal*, November 11, 2009, http://online.wsj.com/article/SB125792362908743307.html.

10. Ibid.

11. This is not to say that developing a robust national innovation policy is not also critical to increasing U.S. international competitiveness. But even the best innovation policies will have a hard time overcoming large sustained export subsidies from other nations, which is what currency manipulation is.

12. Julie Hedlund and Robert D. Atkinson, "The Rise of the New Mercantilists," Information Technology and Innovation Foundation, Washington, D.C., June 2007, http://www.itif.org/index.php?id=51.

13. "S.1466: Trade Enforcement Act of 2009," Govtrack.us, http://www.govtrack.us/congress/bill.xpd?bill=s111-1466. See also Robert Atkinson, "Combating Unfair Trade Practices in the Innovation Economy," Testimony before the Committee on Finance, United States Senate, May 22, 2008, http://www.itif.org/files/atkinsonfinancecommitteetestimony.pdf.

14. International: State Export and International Trade Agencies, "U.S. Government Agencies that Provide Export, International Assistance," Construction Weblinks, http://www.constructionweblinks.com/Organizations/International__Organizations/export_agencies.html.

15. In a recent GAO survey, 72% of responding states said they devoted more than ¾ of their total export-promotion budgets to helping SMEs. "Export Promotion: States Export Promotion Agency Survey" GAO 09-148SP, an E-Supplement to GAO 09-144, March 2009, 11. ii "SIDO Survey 2008: Trends in State International Business Development."

16. For example, the U.S. Trade and Development Agency has its own program of business opportunities but so does the Department of Commerce's Commercial Service. In addition, many federal agencies charge for services, even going so far

as to charge for publications to help exporters. These programs need to be combined into one program, fully integrated with state government efforts, and streamlined and made easier to use. http://www.ustda.gov/program/usexporters.asp.

17. See Robert D. Atkinson and Scott Andes, "The 2008 State New Economy Index," Information Technology and Innovation Foundation, Washington, D.C., 2008, p. 45, http://www.itif.org/files/2008_State_New_Economy_Index.pdf.

18. Robert D. Atkinson, "The Research and Experimentation Tax Credit: A Critical Policy Tool for Boosting Research and Enhancing U.S. Economic Competitiveness," Information Technology and Innovation Foundation, Washington, D.C., September 2006, http://www.itif.org/index.php?id=67.

19. This would include FICA taxes and Federal Unemployment Insurance Taxes.

20. The Netherlands Agency for Sustainability and Innovation, "Working on technological development? The WBSO is the easy way to reduce your wage costs!," July 2009.

21. Robert D. Atkinson and Andrew McKay, "Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution," Information Technology and Innovation Foundation, Washington, D.C., March 2007, http://www.itif.org/index.php?id=34; and Stephen Rose, "Does Productivity Growth Still Benefit Working Americans?," Information Technology and Innovation Foundation, Washington, D.C., June 2007, http://www.itif.org/index.php?id=54.

22. Hans de Groene, Deputy Director General, Directorate General for Enterprise and Innovation, Department for Innovation, Dutch Ministry of Economic Affairs, in-person interview with Robert D. Atkinson, November 17, 2009.

23. Fred Block and Matthew Keller, "Where Do Innovations Come From? Transformations in the U.S. National Innovation System, 1970-2006, Information Technology and Innovation Foundation, Washington, D.C., July 2008, http://www.itif.org/index.php?id=158.

24. National Science Board,Another indicator of this is that federal funding for R&D Plant is down to $3,6 billion in 2007 from $4.5 billion in 2000 (In constant 2000 dollars this equates to even less, at 3.0 billion).

25. See Daniel Castro and Robert D. Atkinson, "Stim-Novation": Investing in Research to Spur Innovation and Boost Jobs," Information Technology and Innovation Foundation, Washington, D.C., January 2009, http://www.itif.org/index.php?id=218 for analysis of the employment measurement methodology.

26. Erkko Autio, "High-Expectation Entrepreneurship 2005," Global Entrepreneurship Monitor, 2005.

27. Robert D. Atkinson and Scott Andes, "The 2008 State New Economy Index," Information Technology and Innovation Foundation, Washington, D.C., November 2008, http://www.itif.org/index.php?id=200.

28. Robert D. Atkinson and Scott Andes, "The Atlantic Century: Benchmarking EU & U.S. Innovation and Competiveness," Information Technology and Innovation Foundation, Washington, D.C., February 2009, http://www.itif.org/index.php?id=226.