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Bridging the Research and Policy Discussion**

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## **ABSTRACT**

### **Job Loss: Bridging the Research and Policy Discussion**

In this paper I discuss a structural problem facing the United States with respect to our policy responses in the context of trade and technological change and their impact on workers. Both trade and technological change have put enormous pressure on the U.S. economy to raise the skill level of the workforce. But the supply of skilled workers in the U.S. is just not keeping pace with the changes in demand due to technology and trade. Fixing this crisis requires us to understand both the skill quality of workers entering into the labor market and the nature of the stock of skills of workers already in the job market. This paper summarizes our knowledge on where workers get skills training and the returns to this training – both private and public. It then discusses how the academic research has informed the policy process and provides some suggestions on how academic economists can get involved in the policy debate to influence the direction of policy.

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Although the economy is finally adding net new jobs beyond what is necessary to keep pace with the growth of the working age population, this current economic recovery is unprecedented in terms of its anemic job growth. There are a variety of culprits cited for this sluggish job creation -- offshoring, productivity growth, geopolitical insecurity, over-investments in information and communication technology still being digested, rising oil prices, and falling labor supply.

Unfortunately, few of these explanations are likely to explain much of this sluggish job market. For example, rising health care costs have been cited as a possible reason why employers might be more reluctant to hire new workers. However, when we look at trends in total employee compensation we do not see the kinds of increases that would explain such slow job creation. Since the workforce is aging we might expect that this would reduce the size of the workforce as a greater share of workers reach retirement age. However, the labor force participation rate of workers over the age of 55 has actually risen about 4 percentage points from 2000 to 2004. So for the moment, the slow pace of job creation does not seem to be related to an aging workforce.

Another possible explanation for slow job growth is the phenomenon of offshoring. Manufacturing jobs have moved offshore over the past two decades and this trend continues, especially now in the apparel sector with the elimination of the Multifiber Arrangement<sup>1</sup> in January 2005. What has changed, however, is that service jobs, once thought immune to the offshoring threat, are now going as well. This shift has

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<sup>1</sup> The Multifiber Arrangement (MFA) came into effect in 1974 and extended trade protection (via quotas) from cotton products to wool and man-made fibers. It expired in 1994 but, with the establishment of the World Trade Organization in 1995, was followed by the Agreement on Textiles and Clothing (ATC) which provided for a transition period between the MFA and the full integration of textiles and clothing in the multilateral trading system that began in January 2005. For a review on the potential impact of the expiration of this protection of the textile and apparel industry see The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing by Hildegunn Kyvik Nordås at: [http://www.wto.org/english/res\\_e/booksp\\_e/discussion\\_papers5\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/discussion_papers5_e.pdf)

important policy implications for the extension of trade adjustment assistance to service sector workers as Lori Kletzer and Howard Rosen discuss in their paper for this conference. While I think that the impact of offshoring of service sector jobs will become an increasingly important issue with time, I do not think that to date it is sufficient to explain a major part of our current anemic job growth.

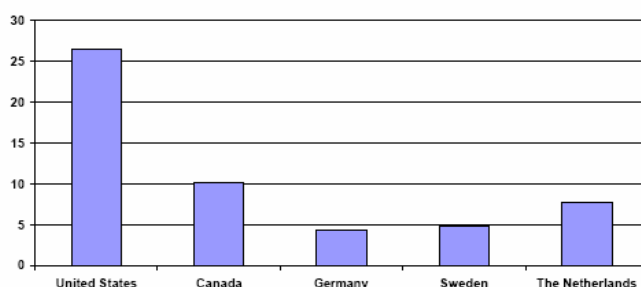
A more likely explanation for the lackluster job growth is some combination of the good news of sustained productivity growth (although what lies behind this is still fertile ground for research) and the dampening effect of geopolitical concerns including the price of oil. However, before we conclude that concerns about the structure of the US labor market have been misplaced I would like to argue that there are quite sensible and rational reasons why people should be concerned about our policy responses in the context of trade and technological change and their impact on workers.

So what is the problem? Both trade and technological change put pressure on our economy to raise the skill level of the workforce. But the supply of skilled workers is just not keeping pace with the changes in demand due to technology and trade. Managers live with this reality everyday. For example, in the 2001 American Academy of Management Association Survey on Workplace Testing it is reported that one in three job applicants tested by employers lacked the basic skills necessary to perform the jobs they sought in 2000. This skill crisis was in place during the boom of the 1990s, it was there during the recession of 2001, and it is still here today. It threatens to be a significant drag on our ability to remain competitive in the global economy through the production of innovative high skill content goods. It also undermines our ability to move workers from contracting sectors of our economy to expanding ones.

But fixing this crisis requires us to understand both the skill quality of workers entering into the labor market and the nature of the stock of skills of workers already in the job market. In terms of the skills of new entrants we see that in spite of a significant increase in the wage premium paid to those with a college degree there has been a slowdown in the rate of growth in the United States for college enrollment and completion rates. This slowdown is concentrated among individuals from low income families and minority families. As Carneiro and Heckman (2003) have pointed out, we are now producing a greater share of low skilled youth than we did thirty years ago. Thirty years ago 25% of 17 year olds dropped out of high school and didn't return or only did a GED. That percentage today has risen to 28%. Meanwhile around the world, young people are staying in school longer and outperforming US youths with respect to math and science. The recently released OECD Programme for International Student Assessment 2003 results for 15 years reports that the U.S. ranked 28<sup>th</sup> out of 40 countries with respect to their performance in mathematics and 22<sup>nd</sup> out of 40 for science performance.

A simple picture can help put this into some perspective. The following figure shows by country the share of 16-24 year olds who had difficulty adding up two numbers on a bank deposit slip. One in four young people in the US can not perform this simple operation versus less than 5% in countries such as Germany and Sweden. We think of ourselves in the United States of having a comparative advantage in the production of highly educated workers but these numbers are disturbing.

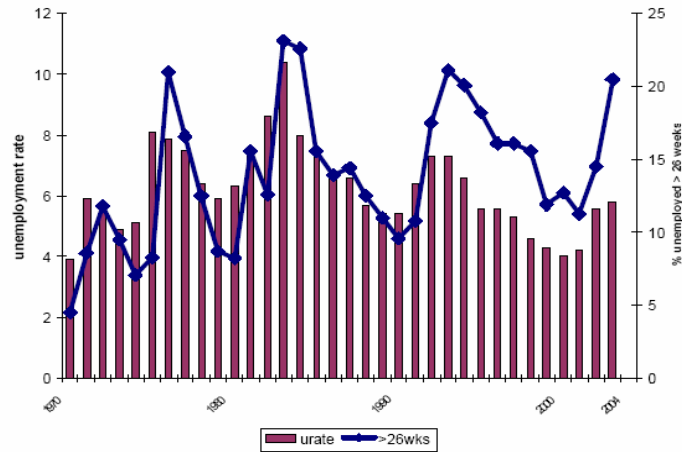
Proportion of 16-25 year olds with minimal quantitative skills by country



What is happening to the stock of workers already in the workforce? We know that the wage differential paid to those with a college degree relative to those with just a high school degree grew rapidly over the past thirty years and remains high (from 1.4 times greater to 1.7 times greater). While the job loss rate for more educated workers has increased over the 1990s relative to earlier periods (Farber 2003) it remains true that less educated workers continue to have the highest rates of job loss overall. More educated workers who do lose their jobs have higher re-employment rates and are more likely to be working full time. But the fact remains, as shown Farber's work, that since the mid 1990s, regardless of education, those displaced workers who do succeed in getting re-employed suffer large earnings losses compared to what they were earning before.

Something seems to have changed structurally in our labor market with respect to the experience of displaced workers. Job losers are increasingly made up of people who have permanently lost their jobs rather than being on temporary layoff. The struggle to find new employment shows up as a break in the relationship between the duration of unemployment and the unemployment rate. This break occurs appears to occur in the mid 1990s as shown in the following chart:

### An Emerging Gap: The Unemployment Rate and the Share of Long Term Unemployed



Data Source: Bureau of Labor Statistics, Current Population Survey

As you can see there is an emerging gap between the unemployment rate and the share of the unemployed out of work for 6 months or more that appears around 1994. For December 2004 the Bureau of Labor Statistics reported that we have more than 1 in 5 unemployed workers out of work for 6 months or more in spite of having an unemployment rate of 5.4 percent. Historically this is a very high share relative to our unemployment rate. A major policy concern related to this is that our unemployment insurance system was designed for providing temporary wage coverage for workers on temporary layoff not for preparing them for new employment.

So where do workers turn to get skills training and what do we know about the returns to this training? In particular, what has research informed us about what works and how has this research informed the policy process. Let us first look at employer provided skills training and what we know about this.



**Table 1: Employer Provide Training and Labor Market Outcomes**

- There are large returns to employer provided training (10-26%) that appear to exceed the returns to college (Lynch 1994)
- Displaced workers with greater amounts of multi-skilling in pre-displacement job suffer smaller subsequent wage losses – (Kuhn's paper this conference)
- More educated workers get more employer training (this creates an important selection issue when evaluating the returns to training) and creates a virtuous circle for the educated and a vicious circle for those who are not. (Lynch 1994)
- Smaller employers much less likely to offer training - even for health and safety (Lynch and Black 1998)
- A real challenge for incumbent workers who have not lost their job but are at risk and want to invest in training is that they also suffer from a shortage of discretionary time to undertake training outside work -- this is particularly true for women.

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How have these findings influenced policy making? They have been used by some legislators to justify proposals to provide permanent tax relief to employers who train their workers or to provide additional tax relief for small employers who train. In other countries it has also been used as a justification for “pay or play” training taxes. But on the whole in the U.S. these are outcomes that are viewed in the policy arena as the result of private choices of individuals and firms. There has been little interest to fund the kind of evaluation of employer provided training programs that government training programs have been subjected to in order to assess private and social returns. Instead, much of the recent policy discussion has focused on accounting standards for these investments in their role as intangible assets to the firm. We do not systematically collect in any of our national surveys of households or firms how the training investments by employers or workers have changed in response to supply and demand shocks --

including technology and trade. This is a large deficit in our understanding of trends in this area.

What happens for the less educated workers out of work? If employers are not investing in them, then the government becomes a critical source of skills training. Here the academic research has been very informative and influential for policy makers. In particular, the use of random assignment to evaluate the effectiveness of the Job Training Partnership Act, JTPA, programs for disadvantaged adults and out of school young workers has been extremely important. Apart from the merits of using random assignment to better evaluate these training programs, an advantage of this methodology is that it is easy to produce simple tables with two columns of results for treatments and controls. No need to talk about propensity scores, standard errors, selection bias and so on. This has made the random evaluation studies very accessible to a broad audience of non-economists.

In general, research has suggested that JTPA training for out of school youth was largely ineffective relative to JTPA adult training. The policy and budgetary response to this research finding was rapid and sharp. We saw a significant shift of federal training funds away from youth and towards adults during the 1990s. At the same time, evaluation studies of Job Corps produced a more optimistic assessment of this type of youth intervention program especially when outcome measures were broadened to income welfare receipt, arrest rates, jail time, along with the usual outcomes of employment probabilities and weekly earnings. Some researchers have interpreted the discrepancy in findings between the return to JTPA and Job Corps for youth as an indication of you get what you pay for -- JTPA was a relatively inexpensive program

while Job Corps is much more expensive. In other words, small investments yield small returns. However, in the policy world this interpretation of these studies has not translated into a massive expansion of Job Corps. It is always easier to cut than to add programs, especially in an era of tightening budget constraints for non-military discretionary spending.

For adult workers there is more promising evidence that government training programs work -- especially certain types of programs and for specific demographic groups.

### **Table 2: Government Funded Training Programs and Labor Market Outcomes**

#### **What Works**

- Classroom training for displaced workers – especially in math/science and health vocational – has a significant impact on wages and employment (Jacobson et. al. this conference)
- Old dogs can learn new tricks and their newly acquired skills do not seem to depreciate over time (Jacobson et. al. this conference)
- Returns of training for displaced workers seem to be higher than what disadvantaged adults, especially males, experience in their training programs. (DOL 1995)
- On-the-Job training for disadvantaged women is cost-effective along with classroom training (DOL 1995)
- Targeted re-employment bonuses can result in decreased unemployment insurance payments that are cost-effective (Christopher J. O'Leary, Paul T. Decker and Stephen A. Wandner 2003)

#### **What Helps Make This Work**

- Smaller programs work better than larger programs - they can better tailor program content to specific needs of participants (DOL 1995)

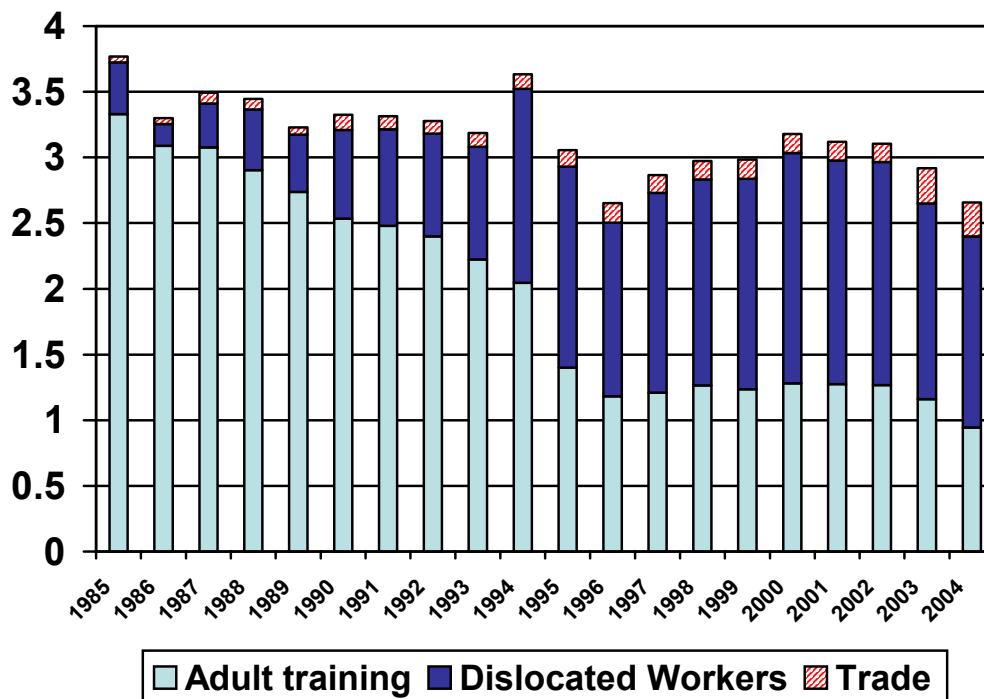
- Working with training providers who are well connected with local employers (e.g. CET in San Jose, CA) improves the training outcomes (DOL 1995)
  - Increasing the role of community colleges in the provision of training. (see National Governors Association (1999) for a summary of state funded employer focused training programs and the use of community colleges to provide this)
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The evaluation evidence on displaced workers programs relative to training for disadvantaged adults has had a significant impact on policy makers funding priorities. As we see in the next figure, funding for adult training (this also includes out of school youth in the JTPA years) has declined steadily since 1985. It fell most sharply in the mid 1990s and this was driven by the evaluations results on youth JTPA training programs.

However, since 1994 the share of training funding for displaced workers has risen sharply. Again, this was influenced by more positive findings on the returns to training of displaced workers and a growing need to help permanently displaced experienced workers find employment in expanding sectors of the economy.

This chart also shows what has happened to training dollars for manufacturing workers displaced by trade -- this is mandatory spending while the other two parts are discretionary spending. While this has risen over time, this is still a very small part of what we spend our training dollars on. Given the discussion in Kletzer and Rosen (this conference) what does this say about our trade policy? More generally, looking at this chart we see that training dollars (at least as distributed across these three programs) have fallen in real terms since the mid 1980s from approximately \$3.7 billion to a bit more than \$2.5 billion. This decline has occurred in spite of rising training needs of workers driven by trade and technology that are cited by policy makers on both sides of the aisle over and over again.

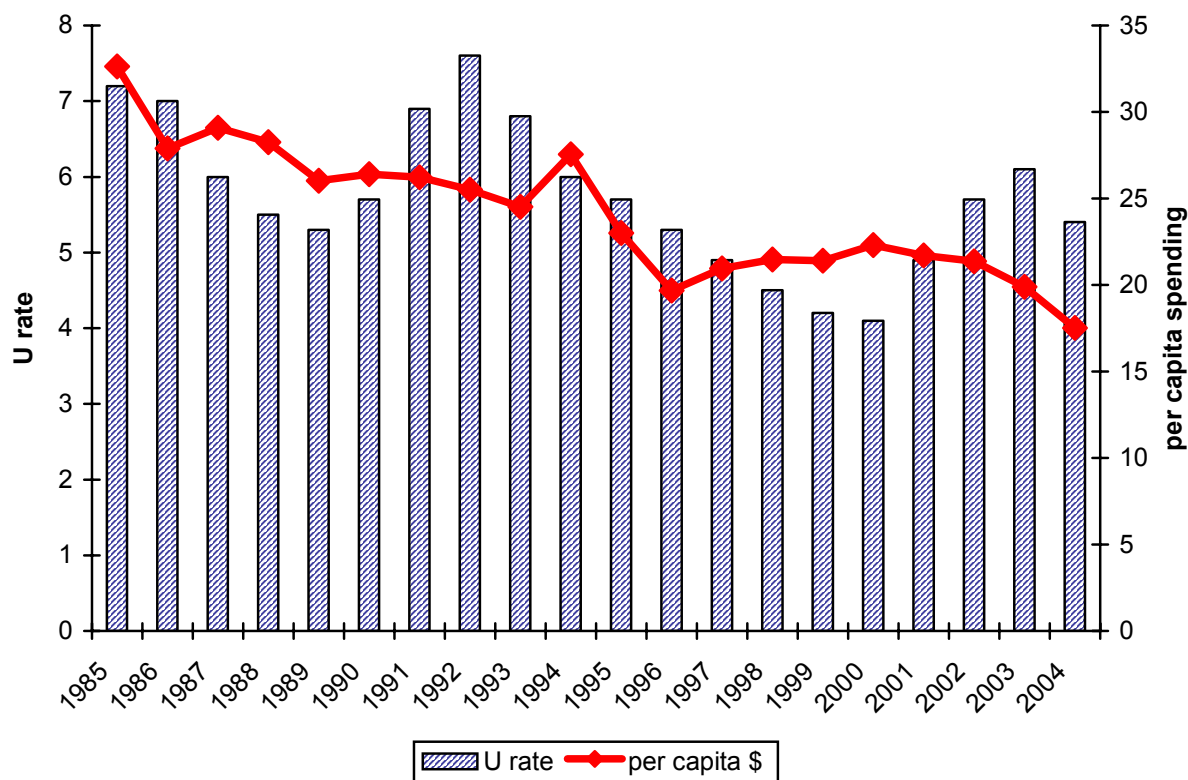
**Workforce Investment Act, JTPA and Trade Funding for Worker Training and Employment Assistance (1985-2004) (billions of dollars inflation adjusted)**



Based on author's own calculations. Adult training includes training for disadvantaged adults and youth.

Yet this does not give you the complete picture. The workforce has been growing over this time period and this should be taken into account. The next chart plots per capita (labor force) spending on these three training programs over time and compares this to the unemployment rate.

**Inflation Adjusted WIA, JTPA and Trade Funding Per Civilian Worker Relative to the Unemployment Rate (1985-2004)**



Based on author's own calculations.

As shown in this figure, per capita spending has been falling from a “high” (although this amount seems rather low) of over \$30 per worker in 1985 to around \$17 per worker in 2004. We are spending about \$1 billion less on worker training today than we would have spent 15 years ago for a similar state of the economy.

We might not worry if we thought that the private sector might make up some of this gap -- but what we do know about private employers is that training expenditures usually are among the first items to be cut during a recession. The same is true for state governments, many of which had expanded state training programs during the boom times of the 1990s. Unfortunately depending on how these training programs were

funded, many states have had to curtail their discretionary spending on workforce training as they struggled to balance their state budgets in this past recession.

In sum, the evaluation studies on federal training programs have had an important impact on federal funding priorities. It has helped us better understand what works and for whom with respect to government funded training programs. But when we look at the overall policy response we see that the findings on lower returns to some types of training for some disadvantage adult males has been used to justify reductions in spending for all groups of workers. So we are not in the middle of a policy debate on how much to expand our federal training commitment but rather it is damage control time to make sure that those programs that do work are not cut. So, how do we as academic economists get involved in the policy debate to influence the direction of policies such unemployment insurance, training programs, and outplacement services?

Joe Stiglitz (1998), writing about his experience as Chairman of the Council of Economic Advisors, talks about the so-called simplicity constraint faced by economists trying to participate in the public policy process. He argues that complicated policies and arguments have little place in political discourse. As researchers we need to understand that much of our subtle qualifiers get lost in the politics of policy making. But at the same time we must resist the temptation to present our work in black and white and ignore the qualifications and caveats that are so important to understand. So how do we do this? We need to put on our teacher's hat and educate the policy community about our work. We have to do this in a more accessible and jargon free way. We can't just simply throw our work over the wall to an academic journal and expect that the policy maker will read

it. Conferences such as this that bring together academic researchers with policy makers are a good example of how to do this.

This means that we need to understand what policy makers need to know. The good news is that our research agendas and their policy interests are not that dissimilar. The following table summarizes some of the topics of common interest.

**Table 3: An Agenda for Training Research and Policy**

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**For the quality of skills of the inflow into the labor market**

- Additional evaluation of pre-school programs and their long term benefits
- Assess K-12 school reform, especially with respect to math and science
- Evaluate returns to investment in math, sciences, and engineering for undergraduate and graduate students
- Expand college enrollment and completion rates for lower-income and minority families --
  - Financing and information barriers
  - Role of mentoring

**For the stock of workers**

- Reform of UI to address permanent layoffs – continued assessment of targeted reemployment bonuses and personal re-employment accounts
- Understanding the mix of services require by workers displaced by trade as well as other job displacement reasons
- Understanding barriers to participation in trade adjustment assistance programs and other government training programs. (See Heckman and Smith’s (2004) work on worker lack of awareness of eligibility to participate in JTPA programs).
- Extend and improve Federal programs for job training, job search assistance and relocation – including evaluation of benefits over time by participate type.
- Expand the provision of employer provided training and track and evaluate its returns more systematically.
- Systematically evaluate state funded employer based training programs



- Evaluate community colleges as training provider for workers – both working and displaced.
  - Expand educational opportunities and student loan eligibility for full time workers to go to school part time.
  - Evaluate how to best use narrowly targeted wage insurance and subsidies to employment
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While there are many areas of common interests for academic researchers and policy makers, unfortunately the funding by the federal government for pilots, demonstration projects and research on training has been reduced dramatically from a high in nominal dollars of \$130 million in fiscal year 2002 to only 58 million in 2004. The amount allocated to research out of this total is very small. But without more detailed evaluation of what works it will become impossible to influence policy direction in the area of training.

Random assignment evaluation is wonderful with respect to its ability to meet Stiglitz's simplicity constraint. But we need to acknowledge that our controls in random assignments are not always so controlled. For example, many youth and adults who were not assigned to JTPA training went on to get it from other sources. A careful review of the JTPA evaluation study by Heckman, Smith and Taber (1996 and 1998) also indicated that there was considerable discretion on the part of local program officers in the so called random assignment process with evidence of reverse creaming. In other words, in some sites the most disadvantaged youths were put into JTPA while the less disadvantaged were "controls. In addition, as the paper by Jacobsen et. al. in this conference shows, we need to follow up on program participants for more than 18

months. Finally, the program content of training programs varies across sites but the evaluation design can not usually take this into account. As a result, we as researchers will need to be able to evaluate programs without using random assignment methods. This will require administrative data to track the outcomes of alternative programs and make sure that our econometric techniques address the concerns of selection bias. But the policy community needs to help academic researchers in terms of access to these administrative data so that this type of evaluation can happen. Such a partnership between academic researchers and policy makers would be extremely fruitful. How we explain our academic results to a non-technical audience, though, will be critical to making this partnership effective.

Another way we can influence policy making as economists is to actually spend time in a policy making position. From my own experience in government, most policy makers within departments and agencies at the political appointee level have a tremendous understanding of how to move legislation through Capital Hill, but few have much economics expertise. The usual result is that there is little policy discussion of economic constraints, opportunity costs, and implementation issues and lots of discussion of how to best maneuver a particular initiative. The challenge here for the economist is not to become corrupted by the process and start using bad arguments to win policy debates. Then we lose our role as an honest broker and ultimately undermine our ability to bring economics expertise into political discourse.

In the aftermath of "blue state - red-state" exit poll analysis of the 2004 Presidential election it appears, as Blinder and Krueger (2004) also found in a recent survey of the general public and their views on economic matters, that "people seem to

use ideology as a short-cut heuristic for deciding what position to take when properly informing ones self is difficult". But before we as economists pat ourselves on the back and say thank goodness we are not like the general public when it comes to shaping our opinions it is sobering to consider the findings from a study by Fuchs, Krueger and Poterba (1996) of public economics and labor economists. Their survey indicated that Left-Right ideology seems to have shaped the opinions of economists more than parameter estimates did. The specific issue of the relative merits of investing in federal job training programs was one of the questions where this reliance on values rather than parameter estimates was greatest.

So our final task as researchers informing the public policy community is to ensure that policy decisions are made on the basis of knowledge and not exclusively "values". Ignorance is never a recipe for good policy. This is how we battle the simplicity constraint.

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