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Did Vietnam Veterans Get Sicker in the 1990s?

The third largest American disability insurance program is the Veterans Disability Compensation Program (VDC), which provides a monthly stipend to disabled veterans. Since the late 1990s, VDC growth has been driven primarily by an increase in claims from Vietnam veterans, raising concerns about costs as well as health. In **Did Vietnam Veterans Get Sicker in the 1990s? The Complicated Effects of Military Service on Self-Reported Health** (NBER Working Paper No. 14781), authors **Joshua Angrist, Stacey Chen**, and **Brigham Frandsen** use the draft lottery to study the long-term effects of Vietnam-era military service on health and work as reported in the 2000 Census. Their estimates show no significant overall effects on employment or work-related disability status, with a small effect on non-work-related disability for whites. On the other hand, for white men with low earnings potential there is a large estimated negative impact on employment, a marked increase in non-work-related disability rates, and an even larger impact on the use of federal disability programs. This differential impact of Vietnam-era service on low-skill men cannot be explained by more combat or war-theatre exposure for the least educated. That leaves the relative attractiveness of VDC for less skilled men, and the work disincentives embedded in the VDC system, as a likely explanation.

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The authors use the draft lottery and the 2000 U.S. Decennial Census data to solve the problem of selection bias that is inherent in comparisons of outcomes between veterans and non-veterans. Although veterans differ from non-veterans in various ways, men who were randomly selected for service in the draft lottery are otherwise similar to those not selected. The 2000 Census provides an exceptionally large sample and, uniquely among large representative samples, contains the birthday information required to determine draft lottery numbers. Moreover, in addition to the usual labor force status variables, the 2000 Census long form asks respondents about disabilities along a variety of dimensions, with a distinct category for disabilities that affect work.

Vietnam veteran status is estimated to have a large impact on the use of federal disability transfer programs such as VDC in spite of an overall modest impact on self-reported disability status. Veterans who receive VDC or receive Social Security Disability Insurance (SSDI) payments — especially those who are (or aspire to be) classified as "individually unemployable (IU)" — are probably more likely to define themselves as disabled and less likely to work. This seems to be a special concern for Vietnam-era Post-Traumatic Stress Disorder (PTSD) claims — data from 2005 show that roughly one-third of PTSD claimants are designated IU and that the IU claimants are concentrated in the Vietnam cohort. IU claimants get the maximum disability benefit, are not supposed to work, and are likely to receive veterans' benefits for the rest of their lives.

These results have important

implications for veterans' compensation policy. The number of Vietnam-era VDC beneficiaries grew rapidly in the late 1990s, growth that accelerated in the early part of this century and has not yet leveled off. This imposes a growing burden on a system that must serve new cohorts of veterans from the Gulf War, Afghanistan, and Iraq.

The authors' results also raise questions about widely publicized projections of the disability costs likely to come out of current conflicts. A large number of VDC claims in this most recent cohort are for PTSD, which is an especially expensive diagnosis, associated with high program costs and large earnings losses. But the costliness of PTSD claims comes in large part from the link with IU and the consequent increase in VDC benefits. Case reviews in the VA Office of the Inspector General show that mental health visits declined by 82 percent after an IU rating decision, and that many granted an IU determination stop seeking treatment for mental health entirely, although health care visits for other conditions are unchanged.

Likewise, the authors' results indicate that the employment consequences of PTSD may have as much to do with incentives as with a medical inability to work, at least in some cases. The complicated links between military service and variables related to health show that the disability-related costs of conflict are driven by policy and regulatory choices, as well as the battlefield consequences of war.

— Lester Picker

Depression Babies and Risk-Taking

In **Depression Babies: Do Macroeconomic Experiences Affect Risk-Taking** (NBER Working Paper No. 14813), co-authors **Ulrike Malmendier** and **Stefan Nagel** confirm that experience over a lifetime strongly influences where households choose to place their investments.

Using the Survey of Consumer Finances for 1964–2004 — which contains data on household investments, income, assets, and age — combined with data on stock and bond returns, the researchers calculate "experienced stock and bond returns" for each household in their sample. These "experienced returns" are the weighted average of returns over the lifetime of each household (so far), where the weights are simultaneously estimated from the data. Malmendier and Nagel find that for those who lived during a period of high stock market returns — inflation-adjusted experienced returns in the 90th percentile, or a rate of return of about 11 percent for the period 1964 to 2004 — the investment of liquid assets in stocks is 5.7 percentage points higher than for those who lived in periods with experienced stock returns in the 10th percentile.

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Experiencing returns in the 90th percentile also increased the probability that a household would participate in the stock market by about 10.6 percentage points. Similar results were observed in bond markets. Households that experienced inflation-adjusted bond returns in the 90th percentile, or a positive return of 4.6 percent, were 11 percentage points more likely to invest in bonds than those who experienced bond returns in the 10th percentile.

The Survey data suggest that 28.5 percent of the U.S. population participated in the stock market between 1964 and 2004. In the late 1960s, participation rates were above 30 percent and comparable to rates reached in the late 1990s. Participation rates fell in the 1970s and early 1980s. Although the authors find that households appear to place more weight on recent market returns, their results also show that good or bad investing experiences early in life leave a lasting impression that "fades away only very slowly."

— Linda Gorman

Teaching the Tax Code

In **Teaching the Tax Code: Earnings Responses to an Experiment with EITC Recipients**, authors **Raj Chetty** and **Emmanuel Saez** test whether providing information about the Earned Income Tax Credit (EITC) affects EITC recipients' labor supply and earnings decisions. The EITC is the largest cash transfer program for low-income families in the United States. One of its major goals is to increase labor supply and earnings among low-income working households. To achieve that goal, however, taxpayers must understand how the EITC program applies to them. Yet surveys indicate that very few eligible individuals know whether working more would increase or reduce their EITC amount. In addition, they get little feedback about how their behavior affects their EITC refund, because in the typical case the refund is received months after they make their decisions about labor supply.

Chetty and Saez conducted a randomized experiment at 119 H&R Block offices in Chicago in 2007 which involved 43,000 EITC claimants. Half of the H&R Block clients were randomly selected to receive a two-minute explanation by their tax professional about how the EITC works. By tracking the subsequent earnings of the 43,000 clients, the authors studied how information on the structure of the EITC affected total earnings in the year after the intervention.

The authors examined how tax preparers differed in the impact of their advice on taxpayers. One group, accounting for about half of all tax preparers, induced their clients to increase their EITC refunds by choosing an earnings level closer to the peak of the EITC schedule. The other group appears to have encouraged their clients to work more, but not to seek the highest possible EITC benefit. The taxpayers who met with tax preparers from this group had insignificant changes in EITC amounts, but they did raise their earnings on average toward the EITC phase-out region. The effects were larger for the self-employed, but were also substantial among wage earners, suggesting that providing information led to real labor supply responses.

> "A two-to-three-minute explanation [of tax incentives] can have substantial effects on labor supply over the subsequent year."

When compared with other policy instruments, providing information has large effects, the authors find. The tax preparers who encouraged taxpayers to maximize the value of their EITC benefits generated the same labor supply response as a 33 percent expansion of the EITC program, while the other preparers induced the same response as a 5 percent tax rate cut.

It may be surprising that a two-to-three-minute explanation can have substantial effects on labor supply over the subsequent year. The authors suggest that is the case because the session combines simple information with advice from an expert at precisely a time when individuals are thinking about taxes. Chetty and Saez show that providing information can be a powerful policy tool because perceptions can be modified at low cost.

The main limitation of this study is that the authors were not able to characterize the mechanisms through which information and advice affect behavior. The decentralized implementation of their experiment made it difficult to precisely define the "treatment" that was provided by each of the tax professionals. Moreover, they were unable to determine how the treatment affected each client's perceptions about the structure of the EITC.

— Lester Picker

The Governance and Performance of Research Universities

Highly productive universities both control their own destinies and face stiff external competition, according to a recent NBER Working Paper.

In **The Governance and Performance of Research Universities: Evidence from Europe and the U.S.** (NBER Working Paper No. 14851), authors **Philippe Aghion**, **Mathias Dewatripont**, **Caroline M. Hoxby**, **Andreu Mas-Colell**, and **André Sapir** construct an index of research productivity that is based on the Shanghai Ranking of World

Universities, which includes measures of patents, the number of alumni who have won Nobel Prizes in science, publications appearing in citation indices, or numbers of highly cited researchers. Combining the Shanghai Ranking — which awards 500 points to the best university — with the results from a survey of governance policies at 196 European universities, the authors find that "the average Shanghai ranking for a European university that must get its budget approved by the government is just above 200 while the average ranking for a European university that does not need budget approval is 316. In general, each percentage of a university's budget that comes from core government funds reduces its rank by 3.2 points."

European universities required to pay the same amount to all faculty members with the same seniority and rank have an average Shanghai ranking of 213. Universities free to pay faculty as they see fit have an average ranking of 322. Universities free to select undergraduate students as they see fit have a Shanghai ranking 156 points higher than those in which the government determines who will attend. Competition also improves research quality. Each percentage of a university's budget that comes from competitive research grants increases the university ranking by 6.5 points.

The NBER researchers find that in Sweden and the United Kingdom universities with high autonomy have high Shanghai ranking scores, while in Spain and the United Kingdom universities with low autonomy have low rankings. The results for state universities in the United States are similar. Research productivity is highest for schools in states that allow more autonomy, such as independent purchasing systems, no state approval of the university budget, and complete control of personnel hiring and pay. States with high rankings and high autonomy include Washington, Colorado, California, Wisconsin, and Michigan. States with low rankings and low autonomy include Arkansas, South Carolina, Kansas, and Louisiana.

"Research productivity is highest for schools in states that allow more autonomy."

Perhaps autonomous universities respond to competition for research funds by developing more productive, inventive, or efficient research programs. The authors seek to show how autonomy and competition affect research productivity by exploiting survey data on the wide variations in those variables among colleges in the U.S. states. Their results confirm that competition increases research productivity. In New Jersey, a highly competitive environment, an increase in exogenous research university expenditure per person increases patenting by residents of that state. In Arkansas, New Mexico, and Maine, where autonomy is low and competition is lackluster, additional spending on research universities may be wasted and may even reduce over-all patenting. Private research universities, which by definition have more autonomy, produce the most patents for any exogenous spending increase. Additional exogenous spending on 2-year colleges generally added little to research productivity during their sample period, and, in some states, may have reduced it.

— Linda Gorman

Central Bank Policies Are More Transparent

Central bankers around the world have become more open about their goals and operations, which has been a boon to taming the ups and downs of inflation. In **Central Bank Transparency: Causes, Consequences, and Updates** (NBER Working Paper No. 14791), authors **Nergiz Dincer** and **Barry Eichengreen** examine the central banks of 100 nations and find that their average transparency score increased from 3.4 in 1998 to 5.4 in 2006. Ninety of those nations made gains, 10 did not, and, strikingly, none became less transparent during that time. At the end of the period the most transparent banks were the Swedish Riksbank, the Reserve Bank of New Zealand, the Bank of England, the Bank of Canada, the Czech National Bank, the European Central Bank, and the Central Bank of Hungary. The least transparent were those of Aruba, Bermuda, Ethiopia, Libya, Saudi Arabia, and Yemen. America's Federal Reserve ranked just below the leaders and on par with the central banks of Israel, the Philippines, and Turkey.

"Greater transparency of central bank operations is the most dramatic recent change in the conduct of monetary policy," the authors conclude. "It is a way of ensuring the accountability of policymakers when the traditional mechanisms for doing so — public monitoring of compliance with an exchange rate commitment and direct oversight by a government with formal control — are in decline, reflecting the shift to flexible exchange rates and central bank independence."

Openness can accomplish several things. If central banks make clear that they're serious about price stability, for example, unions will be less likely to anticipate high inflation and ask for outsized raises in wages. Transparency about their commitment to long-term price stability also gives central bankers flexibility to deal with shorter-term disturbances. Another plus: transparency gives the banks democratic accountability at a time when they have gained more autonomy with the disappearance of the gold standard and pegged exchange rates.

Not everyone agrees with these theories. Even some supporters of greater openness question whether transparency can go too far. Releasing minutes of contentious meetings could confuse investors, reveal bank board members' uncertainty and divided opinions about the future, and increase volatility in, say, the stock market. Also, if bankers reveal their intermediate targets and miss them, will that undermine their credibility?

To address these concerns, the authors examine 15 indicators of central banks' political, economic, procedural, policy, and operational transparency. They find that transparency rises with increases in nations' general level of economic and institutional development and with greater exchange-rate flexibility. It tends to be most evident in nations with certain political characteristics: reliance on the rule of law, stable political systems, openness in terms of political speech and accountability, and high government efficiency. Their analysis suggests that transparency affects inflation and not merely the other way around.

The biggest impact, the authors find, is on the variability of inflation. The more transparent a central bank becomes the less inflation jumps around. The effect is most powerful when opaque central banks begin to open up and diminishes once a bank has reached a certain threshold of transparency. The relationship of transparency to inflation persistence follows the same broad pattern although it's not as robust, the authors conclude.

Whether the move to greater openness endures will depend on the consequences of openness. As long as the public supports the benefits of reduced variability in inflation, then transparency should continue, the authors argue. "If financial globalization and political democratization are here to stay, as we suspect, then so too is greater transparency in the conduct of monetary policy," they write.

"Greater transparency of central bank operations is the most dramatic recent change in the conduct of monetary policy."

— Laurent Belsie

Foreign Ownership and Firm Performance

In **Foreign Ownership and Firm Performance: Emerging Market Acquisitions in the United States** (NBER Working Paper No. 14786), **Anusha Chari, Wenjie Chen,** and **Kathryn M.E. Dominguez** conduct the first systematic examination of the recent phenomenon of American firms being acquired by companies in emerging economies, particularly China and India. Specifically, they ask what happens to an American firm's performance after it is taken over by a corporation in an emerging economy (for example, the Chinese Lenovo's 2004 purchase of IBM's personal computer operations or Indian Tata Motors 2008 purchase of Ford's Jaguar and Land Rover divisions).

The researchers note that traditionally foreign investment flowed from developed countries to developing countries, bringing with it superior technology, organizational capital, and access to international capital markets, with the result being improved productivity. In the case of recent emerging-market acquisitions, however, while the role of sovereign wealth funds and the build-up of U.S. dollar reserves in emerging markets are seen as motivations for acquisitions in developed markets, the productivity-improving role of technology transfers from emerging to developed markets is not obvious.

The first question Chari, Chen, and Dominguez face in estimating post-acquisition performance is: causality versus selection? Are emerging-market firms simply picking certain types of acquisition targets, or do foreign acquisitions change target-firm performance? The data strongly support the proposition that the selection of U.S. firms for acquisition is not random, but favors U.S. targets with high levels of sales, employment, and assets.

They find next that the stock market response of the acquired firms is positive and significant around the time of the acquisition announcement. Average cumulative returns on the target stock price within a three-day window around the announcement date of the acquisition increase by 8 percent and remain significant and positive when the window is extended to 10 and 21 trading days. Following the acquisition, the performance of target firms also improves. In particular, the return on assets in target firms grows by an average of 16 percent in the five years following the takeover.

The evidence suggests that U.S. target firms undergo significant restructuring after acquisition by emerging-market firms. Employment and the capital stock decrease, suggesting that unprofitable divisions may be sold off or closed. This conjecture is supported by the fact that sales also decline after acquisition.

To measure the performance of the acquired firms, the authors focus on the accounting measure "operating income before depreciation, amortization, and taxes" (OIBD) scaled by total assets to provide "return on assets" (ROA). They also track changes following the acquisition in other aspects of the target firm's operations, such as investment, employment, and sales. Their data come from the Thompson Financial SDC Platinum database, specifically the records of all mergers and acquisitions involving publicly traded U.S. firms announced between January 1, 1980 and July 1, 2007.

"U.S. target firms undergo significant restructuring after acquisition by emerging market firms… . Increasing profitability measured by the return on assets coupled with declining sales, employment and capital is consistent with improvements in firm efficiency."

The pattern of increasing profitability as seen by an increase in the return on assets coupled with declining sales is consistent with improvements in firm efficiency following acquisition. If, for example, firms shut down or divest themselves of unprofitable divisions, then sales would go down but profits as a percentage of assets would increase. In addition, declining employment and net Property, Plant, and Equipment (PP&E) suggest downsizing of divisions to improve overall profitability as a percent of assets. The downsizing of employment and net PP&E are also consistent with the "comparative input cost hypothesis" whereby acquirers from emerging markets may be in a position to exploit the low wages in their home countries by downsizing labor-intensive activities in the foreign country following the acquisition.

The analysis here indicates that there is selection along observable characteristics, such as higher sales, assets, and employment, upon which emerging-market firms choose acquisition targets in the United States. The researchers also find that despite the decrease in sales, capital, and employment, profits rise for U.S. firms acquired by companies in emerging markets. Overall, the evidence strongly indicates that emerging-market firm acquisitions affect the performance of U.S. target firms.

— Matt Nesvisky