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## Effects of Rising Health Insurance Premiums

In an indication of why the cause of health care reform is attracting a broader constituency, two new NBER studies offer evidence that soaring health insurance premiums do more than swell the ranks of the uninsured. They boost unemployment, push more workers into part-time jobs, and force employees to sacrifice wages and other benefits just to retain some measure of coverage.

In **The Labor Market Effects of Rising Health Insurance Premiums** (NBER Working Paper No. 11160), NBER associates **Katherine Baicker** and **Amitabh Chandra** note that premiums for employer-provided health insurance have risen 59 percent since 2000, far outstripping wage gains. For example, between 2003 and 2004 alone, premiums went up by 11.2 percent while wages increased only 2.3 percent.

Their analysis reveals that these increases are taking a heavy toll on workers. Every 10 percent increase in health insurance costs reduces the chances of being employed by 1.6 percent. It also reduces hours worked by 1 percent as employers respond to rising health costs by converting full-time jobs to part-time positions, most of which do not include health benefits. For workers who continue to get health insurance, more and more often, the

increased price of premiums is coming out of their salary: a 10 percent increase in premiums is offset by a 2.3 percent decrease in wages.

Particularly vulnerable, the authors observe, are low-wage hourly workers, because employers are legally constrained from how much they can reduce wages to accommodate a rise in health premiums. So, instead they may choose to just drop coverage altogether.

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Baicker and Chandra report that "workers who are paid hourly with a wage of less than \$8 an hour are significantly more likely to lose health insurance as premiums rise." For hourly workers, "a ten percent increase in health insurance premiums results in a 3.8 percent reduction in the probability of being offered health insurance coverage."

Baicker and Chandra also note that married, healthy women are more likely to lose their employer-provided insurance when premiums go up, but for different reasons. Because they either can get coverage through their husband's plan or because they don't use health services

frequently, the women may decide the higher premiums aren't worth it.

Overall, Baicker and Chandra believe "it is possible that a significant portion of the increase in the uninsured population may be a consequence of employers shedding this benefit as health insurance premiums rise." They point out that a 34 percent rise in premiums during the 1990s is probably the reason why, despite strong economic growth in

the decade, the number of uninsured grew 3 percentage points to 15.7 percent of the population.

In **Wage and Benefit Changes in Response to Rising Health Insurance Costs** (NBER Working Paper No. 11063), co-authors **Dana Goldman**, **Neeraj Sood**, and **Arleen Leibowitz** offer further evidence of the far-reaching effects of health insurance inflation. They show that rising health costs are forcing many employees who want to retain coverage to surrender both income and benefits.

These authors examined the response to health insurance costs among almost 3000 employees at a

single large firm. Like a growing number of workers today, these employees are offered what are known as “defined-contribution benefit plans.” Such plans offer a base amount of coverage for a variety of areas, such as health, life insurance, disability, and retirement. If employees want additional coverage in any area, they can either pay for it outright from their pre-tax earnings or reduce benefits in one area and shift them to another.

During the three-year period of the study, premiums for the basic health plan offered to employees — which covered only catastrophic care — stayed the same, while costs for other plans went up. That left employees facing a decision: to maintain their existing level of coverage, they had to accept either a salary cut or a reduction in other benefits. Goldman, Sood, and Leibowitz find that in these situations, two-thirds of a premium increase is paid for with wages and

the remaining third from a reduction in benefits. In other instances, employees simply shifted to less generous plans, such as one that only covered catastrophic illness.

the policy. “More generally, rising health insurance premiums will place an increasing burden on workers and increase the ranks of the uninsured and the unemployed,” they conclude.

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In both studies, the researchers see their results as having serious societal implications. Baicker and Chandra believe it is particularly important that any effort to cover the uninsured take into account their finding that many employers are not going to single-handedly absorb price increases in health insurance. For example, if there is a government mandate to provide coverage, their study indicates that employers will either require employees to pay for at least a portion of the increase or shift more staffing to part-time positions that are often exempt from such mandates, thus undermining

Goldman, Sood, and Leibowitz warn that rising health insurance costs are not only reducing take-home pay — and hence consumer spending — they also are “lowering insurance purchases against a variety of other risks.”

“If health insurance purchases continue to rise and individuals continue to reduce their purchase of health insurance and other insurance products, that might leave them more vulnerable to health, mortality, disability and other significant risks in the long-run,” they write.

— Matthew Davis

## Does Overseas Investing Reduce Domestic Investment?

**T**here is a widespread popular perception that when American companies invest abroad they necessarily reduce economic activity and employment in the United States. But in their recent study, **Foreign Direct Investment and the Domestic Capital Stock** (NBER Working Paper No. 11075), authors **Mihir Desai, C. Fritz Foley, and James Hines** offer an alternative perspective: they conclude that greater foreign investment by U.S. multinational firms is actually linked to greater investments at home as well.

Desai, Foley, and Hines examine investment data covering a broad

set of high-income countries during the 1980s and 1990s and confirm earlier findings that outbound foreign direct investment (FDI) appears to reduce aggregate domestic investment. However, when they focus solely on the domestic and foreign capital spending of U.S.-based multinational corporations, they find the opposite result. When the foreign affiliates of U.S. multinational corporations engage in higher capital expenditures, the American multinationals also tend to increase investment back home — suggesting that foreign and domestic investment are complements, not substi-

tutes. Specifically, the authors find that “an additional dollar of foreign investment capital expenditure is associated with 3.5 dollars of domestic capital expenditures by the same group of multinational firms, strongly suggesting a complementary relationship between foreign and domestic investment.”

The common intuition is that a firm’s resources are fixed, so a dollar invested abroad would necessarily mean one less dollar available to invest at home. “Unsurprisingly,” the authors acknowledge, “growing overseas activities of multinational firms have become a source of economic

insecurity for workers, managers, and tax collectors.” But Desai, Foley, and Hines point out two reasons that such thinking may be misguided.

First, when financing new projects and investments, multinationals and their foreign affiliates can tap both world markets and local capital markets depending on many factors that can make different financing arrangements more or less advantageous — such as financing terms and tax considerations. Second, the type of investment might make a difference. So-called “horizontal investment,” whereby a multinational invests abroad in order to replicate business activities conducted at home, can (though need not) divert economic activity away from the home country. But “vertical” investments, in which production processes are broken into various stages around the world, often lead to situations in which foreign and domestic production activities complement one another. “Vertical foreign investments can raise the demand for domestic capi-

tal,” the authors argue, “by permitting greater exploitation of intangible assets produced by domestic activity or by increasing the profitability of domestic production that can be combined with foreign output.”

Desai, Foley, and Hines also

expenditures by U.S. multinationals by 1.9 dollars.

The authors conclude by underscoring that when multinational firms combine domestic production with foreign production, such firms can produce at a lower cost

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consider the impact on their findings of the domestic savings rate and of the investments by foreign-owned firms in the United States, but find that the inclusion of these variables does little to affect the complementary relationship between domestic and foreign investment. For each extra dollar of domestic savings, U.S. capital spending by U.S. multinationals increases by 26 cents, whereas an additional dollar of capital spending by foreign-owned firms in the United States reduces domestic

overall — so each stage of the production process is therefore more profitable. “It is clear that the simple story, in which the world has a fixed stock of investment capital that can either go to one place or another,” the authors conclude, “is due for rethinking.” And the growing prominence of multinational corporations in an era of globalization makes such rethinking all the more pressing.

— Carlos Lozada

## Why Obesity Lowers Wages

Increasingly, Americans are either overweight or obese. Individuals with a body mass index (BMI) of 25 to 29.9 are considered overweight, while those with a BMI of 30 or more are considered obese. The proportion of adults classified as obese increased from 12 percent in 1991 to 20.9 percent in 2001. (The BMI for an individual is calculated as a person’s weight in kilograms divided by their height in meters squared.)

Because obesity is associated with increased risk for a range of chronic conditions, health care costs

are higher for obese than for normal weight individuals. Annual medical expenditures are \$732 higher on average for obese individuals than for normal weight individuals. On an aggregate level, approximately half of the estimated \$78.5 billion in medical care spending in 1998 attributable to excess body weight was financed through private insurance (38 percent) and patient out-of-pocket payments (14 percent).

Obese individuals tend to be sicker and to spend more on health care, so the question arises: who

bears the costs? The majority of the under-65 U.S. population receives health insurance coverage through their employers. Under pooled group health insurance, the insured group pays for higher medical expenditures, such as those associated with obesity, through higher premiums. Yet, employee contributions to plan premiums are rarely risk-adjusted for obesity or any other observable risk factor, implying that all individuals within the pool pay for these premium increases equally. As a result, it is tempting to conclude

that fellow workers in a firm pay for the health care costs of obesity.

In **The Incidence of the Healthcare Costs of Obesity** (NBER Working Paper No. 11303), authors **Jay Bhattacharya** and **M. Kate Bundorf** find that obese workers with employer-sponsored health insurance pay for their higher expected medical expenditures through lower cash wages. This conclusion is strengthened by their finding that these types of wage offsets do not exist for obese workers with insurance coverage through an alternative employer. Nor are there wage offsets for other types of fringe benefits whose cost to the employer is less likely to be affected by BMI.

Although economic models of worker compensation predict the existence of a wage offset for health insurance, this finding is noteworthy given the dearth of empirical evidence on the existence of these types of wage offsets. The authors also provide evidence on the level at which these wage offsets occur. The magnitude of the wage offset for employer-sponsored coverage varies by individual characteristics that affect expected medical expenditures, in this case obesity. Assuming that obese workers are not highly concentrated within particular firms, this suggests that the wage offset for health insurance varies across individuals within a firm based on their health risk.

The authors caution that their results do not provide direct evidence that employees bear the full incidence of the cost of employer-sponsored coverage. It is possible that employers either partially or

insurance, there is only a small obesity wage penalty. The obesity wage penalty is largest in jobs where health insurance is provided. Hence, the cash wages for obese workers are lower than those for non-obese workers because the cost to employers of providing health insurance for

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**"The cash wages for obese workers are lower than those for non-obese workers because the cost to employers of providing health insurance for these workers is higher."**

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fully subsidize the average premium. The evidence here supports a weaker version of employee incidence: that employees pay for individual characteristics that make them a high cost to insure. These results imply that having insurance provided through an employer does not guarantee the pooling of health risks across all employees.

Prior studies generally have found that obese workers have lower wages and that the wage reductions cannot be explained by variation in worker productivity. The underlying implication is that obese workers, particularly women, face significant labor market discrimination. The authors' results point to and provide empirical evidence for an alternative explanation. For workers in jobs without employer-provided health

these workers is higher.

In fact, the authors' evidence suggests that for both male and female obese workers, the magnitude of the wage penalty exceeds the expected marginal cost of insuring an obese individual. The traditional explanations for the obesity wage penalty can be applied to this excess wage penalty, although it is beyond the scope of the authors' current research to sort them out. These explanations include invidious discrimination against the obese, mainly in the high end jobs that provide health insurance; job sorting of the obese into relatively low wage occupations among the high end jobs; and perhaps even productivity differences between the obese and non-obese in high-end but not low-end jobs.

— Les Picker

## Good Teachers Raise Student Achievement

**I**n **The Market for Teacher Quality** (NBER Working Paper No. 11154), co-authors **Eric Hanushek**, **John Kain**, **Daniel O'Brien**, and **Steven Rivkin** use a unique dataset from the Texas School Microdata Panel to measure teacher quality by

the annual growth in each student's scores on the mathematics section of the Texas Assessment of Academic Skills. The dataset links detailed student, teacher, and school characteristics in grades 4 through 8 for the school years 1995/6 to 2000/1 in a

major Texas urban district.

Their results confirm that good teachers increase student achievement. The average student who has a teacher at the 85<sup>th</sup> quality percentile can expect annual achievement gains that are 0.22 standard deviations

greater than the average student with a median teacher. Good teachers do well with students at all levels of achievement, and there is no evidence that teacher education or performance on a certification examination contributes to quality teaching. The authors believe that the latter findings raise “serious questions both about the desirability of requiring or rewarding with higher pay those with a post-graduate degree and about the efficacy of the existing certification procedures in Texas and similar systems in other states.”

First-year teachers have much lower performance on average than other teachers. After that, teacher performance improves markedly, peaking in a teacher’s fourth year. In Texas, 10 percent of teachers with 0-2 years of experience, and 7 percent of all teachers, leave each year. Because first-year teachers are at a

disadvantage, to the extent that higher turnover in urban school districts increases the proportion of first-year teachers, high turnover may be part of the explanation for their poorer performance.

Although people who make education policy worry that high

tial variation in teacher quality within schools. This has two implications for state accountability programs. Many states measure quality by aggregating student scores for an entire school. According to the authors, any program that “aggregates performance to the school level

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“Good teachers do well with students at all levels of achievement, and there is no evidence that teacher education or performance on a certification examination contributes to quality teaching.”

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quality teachers leave urban schools in disproportionate numbers, the authors find no evidence of this. They conclude that the teachers who do change districts are roughly equivalent in quality, and that the students benefit from having a same race teacher, quality held constant.

The authors also find substan-

or across years misses the majority of the variation in the quality of instruction.” This “weakens the incentives for good teachers to enter and remain in teaching, for ineffective teachers to leave, and for all teachers to put forth greater effort.”

— Linda Gorman

## U.S. Consulates Raise Exports

Last fiscal year the U.S. Department of State paid \$4.2 billion for diplomatic and consular programs, and another \$1.5 billion for embassy security, construction, and maintenance. Was the money well spent?

Perhaps, since one justification for diplomatic representation abroad, probably less well recognized, is that it promotes exports. Indeed, looking at data for 22 large exporting nations with 200 destination countries, NBER Research Associate **Andrew Rose** finds that bilateral exports rise by about 6-10 percent for each additional consulate a nation establishes in a customer country.

**In The Foreign Service and Foreign Trade: Embassies as**

**Export Promotion** (NBER Working Paper No. 11111), Rose notes that “foreign missions” do, of course, have other duties. They have been important sources of information about foreign countries over the years. And, they were empowered to make significant decisions. But as communication costs have fallen, much of that information has become quickly and cheaply available through alternate sources — the media and the Internet, for instance. Key decisions about foreign affairs increasingly are made at home and simply communicated abroad. Consular affairs — that is, dealing with passports, visas, and the like — “do not seem to justify the expense and prestige of a Foreign Service,”

writes Rose. So export promotion increasingly has been seen as a *raison d'être* for the Foreign Service. Ambassadors, commercial attachés, and other members of the diplomatic corps play a key role in developing and maintaining export markets.

Foreign Service jobs are usually seen as glamorous. In the United States, ambassadors rank eighth in the nation’s protocol precedence list, just after the Chief Justice of the Supreme Court and former presidents, and just before the Secretary of State and the President of the United Nations General Assembly. But the prestige of the Foreign Service may be a historical legacy; many nations now see a more mundane task for their diplomats —

export promotion. The U.S. Commercial Service, operating out of foreign missions, has the role of “supporting U.S. commercial interests around the world.” The United Kingdom, describing itself as the fifth largest trading nation, gives its diplomats the role of “promoting trade and investment opportunities overseas.” Canada assigns diplomats the role of “fostering” international trade. Germany talks of assisting its companies by “generally enhancing mutual trade.”

In his analysis, Rose takes advantage of the fact that countries have varying numbers of foreign missions abroad. Some embassies

cover multiple countries. Some countries host an embassy and a number of consulates. For instance, the United States last year had an embassy and two consulates in

Taking into consideration a host of other factors that could affect export levels, Rose concludes that the 6-10 percent export gain he finds is statistically significant and

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“Bilateral exports rise by about 6-10 percent for each additional consulate a nation establishes in a customer country.”

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Canada, an embassy in Cape Verde, and no official presence in the Central African Republic, which is covered from Chad and Cameroon. The Netherlands has more than 400 foreign missions, while Sweden has less than 100.

economically plausible in magnitude. Moreover, it varies by the exporting nation and is non-linear — that is, the first foreign mission gives a larger boost to exports than successive missions.

— David R. Francis

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