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## Some Won’t Buy Health Insurance — Even at Very Low Prices

In 2006, Massachusetts enacted Commonwealth Care, a program similar in many ways to the Affordable Care Act in that it subsidized health insurance for low-income adults. In **Subsidizing Health Insurance for Low-Income Adults: Evidence from Massachusetts** (NBER Working Paper No. 23668) Amy Finkelstein, Nathaniel Hendren, and Mark Shepard analyze enrollees’ willingness to pay for health insurance and the impact of subsidy rates on insurer costs. Commonwealth Care offers large subsidies for private health insurance for individuals below 300 percent of the federal poverty level who are not covered by an employer plan or another public program, such as Medicare. The researchers analyze data from fiscal year 2011. Insurance payments were covered by a combination of Commonwealth Care subsidies and premiums paid by the eligible individuals. Enrollee premiums, intended to be affordable for low-income people, varied with income levels. Specifically, rate changes occurred at 150 percent, 200 percent, and 250 percent of the

poverty line. The premium for the cheapest plan was \$39 a month for enrollees with incomes between 150 and 200 percent of

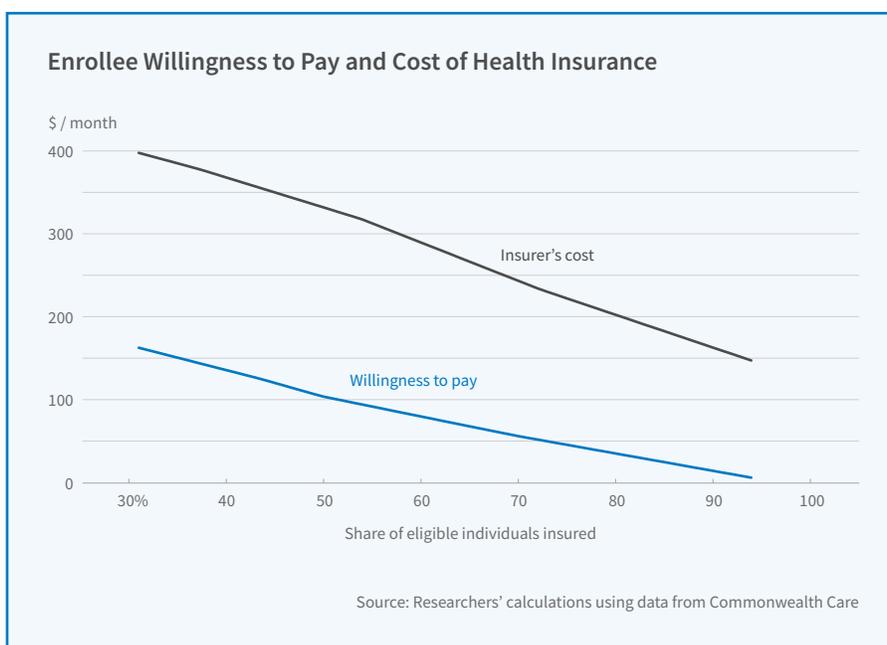
coverage and pay a penalty equal to half the cost of the lowest premium.

The variation in the post-subsidy cost of

Massachusetts data indicate that even if 90 percent of health insurance costs were subsidized, 25 percent of those eligible for subsidies would choose to remain uninsured.

the poverty line, \$77 a month for those from 200 to 250 percent, and \$116 a month for those above 250 percent. All of these enrollee

insurance for low-income participants allows the researchers to estimate enrollees’ willingness to pay for health insurance. It also enables them to study how the set of enrollees who take up insurance affects provider costs. The researchers find that for each \$40 increase in monthly premiums for the cheapest plan, enrollment in Commonwealth Care declined by about 25 percent, despite the penalty for opting out of coverage. When Commonwealth Care was free — as it was for those below 150 percent of the poverty line — 94 percent of eligible adults enrolled, but participation decreased to 70 percent when the premium rose to \$39 per month, and to below 50 percent when premiums were \$116 per month.



As individuals dropped out of coverage when their premiums became more expensive, average insurer costs per participant rose. At the 150 percent threshold, insurer costs increased by \$47 per enrollee, or 14 percent. This indicates that the individuals who dropped coverage as the price increased were, on average, less expensive individuals to insure. In other words, the insured pool was adversely selected in terms of health risk.

The researchers estimate that individuals are willing to pay less than one-third of average insurer cost to obtain coverage. The median willingness to pay for insurance is \$100 a month, roughly one-fourth of the cost of insuring individuals with above-median willingness to pay. Thus if a subsidy covers 75 percent of the cost of coverage, only half of eligible participants would choose to buy insurance. Even if the sub-

sidy were 90 percent, 25 percent of those eligible would choose to remain uninsured.

The researchers find that the gap between individuals' willingness to pay and insurer costs cannot be fully explained by adverse selection. They hypothesize that uncompensated medical care for uninsured patients accounts for the majority of the gap.

—Morgan Foy

## Long-Term U.S. Treasury Bonds Have Lost Their 'Specialness'

Investors have traditionally preferred U.S. Treasury bonds over the government bonds of other nearly default-free nations, a "specialness" that has reduced borrowing costs for the U.S. federal government. But that advantage has disappeared since the global financial crisis, at least for medium- and long-term U.S. government bonds, according to new research.

Researchers [Wenxin Du](#), [Joanne Im](#), and [Jesse Schreger](#) build on what's known as the "convenience yield" of U.S. Treasuries — the return that investors forgo by holding U.S. government debt rather than U.S. corporate or other private debt. They calculate a similar measure of the difference between the yield on U.S. Treasury bonds and the average implied dollar yield paid by 10 near-default-free sovereigns. They call this spread the "U.S. Treasury premium." The 10 nations (Australia, Canada, Denmark, Germany, Japan, New Zealand, Norway, Sweden, Switzerland, and the United Kingdom) have traditionally paid more than the United States to borrow, even though all

of them, except for Japan, have AAA or near-AAA sovereign credit ratings.

Before the crisis, the yield on Treasuries with a five-year maturity was 21 basis points lower than the FX-swap implied dollar yield

(NBER Working Paper No. [23759](#)).

"[T]he decline in the [specialness of U.S. Treasuries] cannot be explained away by credit risk or FX swap market mispricings," the researchers write. "In contrast, short-

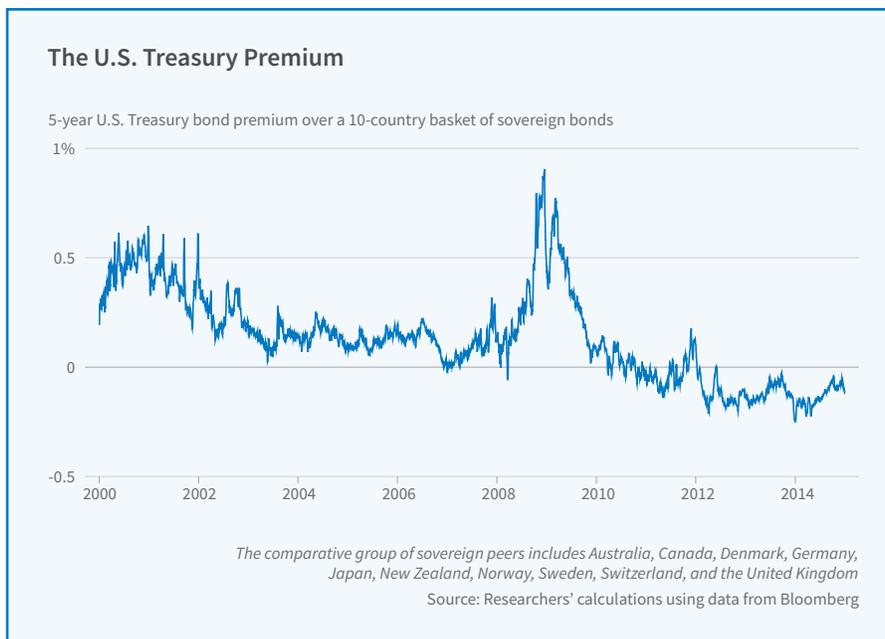
An investor preference that for decades reduced borrowing costs for the U.S. government has disappeared since the global financial crisis.

paid by foreign governments. Since the crisis, this gap has narrowed and even reversed sign.

term U.S. Treasury bills have retained their specialness after the Great Financial Crisis."

During 2007–09, the premium for three-month Treasuries shot up to 280 basis points while the average five-year premium increased 90 basis points. In the 2010–16 post-crisis period, three-month Treasuries returned to their 20-point pre-crisis average. However, the premium or specialness of medium- and long-term U.S. Treasuries steadily declined, until it disappeared.

The researchers consider three factors that may contribute to the Treasury premium: the sovereign credit risk differential between the U.S. and other nations, swap market mispricings, and differences in liquidity broadly



On average, Treasury yields have been higher by 8 basis points, according to the research reported in **The U.S. Treasury Premium**

defined. Pre-crisis, the first two factors were negligible; the researchers conclude that liquidity mostly drove the Treasury premium. Post-crisis, liquidity played, if anything, an even larger role, at least for medium- and long-term Treasuries, because the other factors

tended to increase the premium.

The U.S. Treasury premium rises when the U.S. debt-to-GDP ratio is low and Treasuries are scarce relative to foreign government bonds; in these circumstances investors are prepared to pay more in forgone yield for

these bonds. While the researchers are cautious about interpreting this relationship, they say it does suggest that the higher the U.S. government debt, the smaller the premium on medium- and long-term bonds.

—*Laurent Belsie*

## Explaining Differences in Social Security Claiming Behavior

Older Americans can choose to begin receiving Social Security benefits when they reach age 62. For each year that they defer claiming, up to age 70, annual benefits grow by about 8 percent. For many individuals, delaying the start of benefits increases the expected discounted value of the total payouts that they will receive. Why, then, do most people claim within the first few years of eligibility?

This is the question explored by [John B. Shoven](#), [Sita Nataraj Slavov](#), and [David A. Wise](#) in **Social Security Claiming Decisions: Survey Evidence** (NBER Working Paper No. 23729). They find that early claimers lack liquidity and have concerns about future policy changes as well as their health.

The researchers conducted a nationally representative survey to understand individuals' claiming choices and to gauge satisfaction with those decisions. They also used information on respondents' financial literacy, knowledge of Social Security, and self-assessed health.

In their data sample, most individuals claimed benefits either at age 62, the first year of eligibility, or near the full retirement age (FRA), typically around age 65. The majority of those who were receiving

benefits claimed them within a month of retirement. However almost a quarter of the sample waited until two years after retirement. Of the share claiming two years after retirement, 62 percent used employer-spon-

sored pensions to finance the in-between period, while others relied on savings or their spouse's income.

The researchers found that on average,

When asked about the rationales for their decision, individuals who claimed more than six months before the FRA indicated that they had stopped working (38 percent), that they needed the money (21 per-

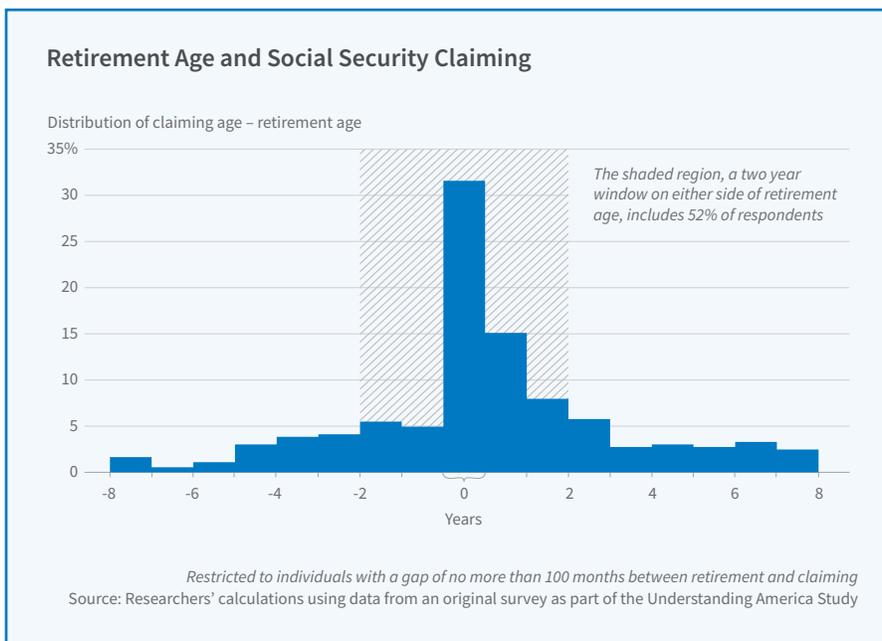
Early claimers needed money, feared benefit cuts in the future, or were in poor health. Late claimers were better educated and had IRAs or 401(k)s.

cent), that they feared that Social Security benefits would be cut in the future (15 percent), and that they were in poor health (14 percent). Those claiming within six months

of the FRA responded that it seemed natural to start benefits at the FRA (46 percent), that they had stopped working (25 percent), and that they wanted to avoid the possibility of benefit reductions (19 percent). Continued employment, good health, and wanting to take advantage of the gains from delay were common reasons for not having claimed yet or for waiting at least six months after the FRA.

Almost 80 percent of those surveyed reported satisfaction

with their claiming decision. Those who claimed around the FRA were more satisfied than those who claimed at age 62. Likewise, those who delayed for more than two years after retirement were more sat-



primary earners, those with more education, and those with an IRA or 401(k) claimed later. They found no relationship between financial literacy or knowledge of Social Security and the age of claiming.

ified with their decision than those who did not wait. The researchers note that the high rate of claiming around the FRA, and the high satisfaction with this decision, may point to the role of social norms in the claiming process.

Among individuals who claimed early, those who received financial advice to claim early reported greater satisfaction with their decision than those who claimed early because of health or liquidity concerns.

Over 50 percent of respondents were

aware that claiming later would lead to higher annual benefits, but said that this did not influence their choice. Only 13 percent of the sample answered that they were unaware of the gains from delay.

—Morgan Foy

## Long-Term Effects of Time-of-Day Pricing Experiments

Psychologists and economists have documented the existence of a powerful decision-making “default effect.” When presented with a default option, consumers are significantly more likely to passively accept it than they would be to actively select it. Evidence of this default effect has been found in retirement saving, health insurance choice, organ donation, and other settings.

Most research on the default effect focuses on behavior that directly responds to the default assignment. The longer-term effects of defaults are less well known. In **Default Effects and Follow-On Behavior: Evidence From an Electricity Pricing Program** (NBER Working Paper No. 23553), Meredith Fowle, Catherine Wolfram, C. Anna Spurlock, Annika Todd, Patrick Baylis, and Peter Cappers analyze the long-term consequences of defaults in an area of particular social concern: electricity pricing plans.

Electric utilities are challenged by sharp peaks in demand, particularly during the hot summer months when customers crank up their air conditioning. This results in substantial investment in “peaking plants” that may only be used a few days a year. Previous research has found that if more consumers were on time-varying pricing programs that discouraged consumption around peaks by confronting consumers with higher electricity prices, then utilities would be able to construct 44 percent fewer peaking plants.

The researchers studied a field experiment conducted between 2011 and 2013 by the Sacramento Municipal Utility District.

Approximately 174,000 households in the district were randomly assigned to a business-as-usual control group or to one of two treatment groups in which partici-

Electricity consumers who were defaulted into a time-based pricing plan became increasingly responsive to the arrangement and reduced their power consumption during high-priced periods.

pants were encouraged to participate in one of two different time-based pricing plans. In one treatment group, participants had to actively opt in to one of the two pricing plans. In the other, participants were informed that they had been automati-

Predictably, the researchers found evidence of a large default effect. Over 95 percent of customers who were automatically enrolled in a time-based pricing plan stayed

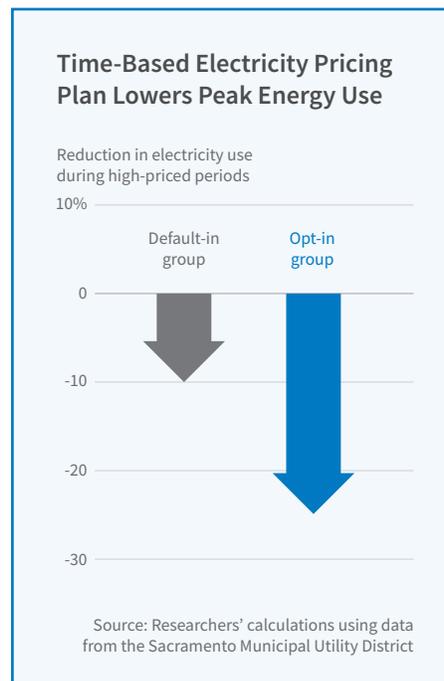
on that plan, whereas only 20 percent of those encouraged to consider such a plan actively opted in.

The researchers next turned their attention to the long-term implications of this effect and found that customers who were defaulted into the time-based plans reduced electricity consumption during high-priced peak periods by about 10 percent. Opt-in consumers exhibited larger usage reductions initially, cutting consumption by over 25 percent. The responses of default customers to the plans grew over time, while the magnitude of responses of opt-in customers declined over time.

Both the default and opt-in groups enjoyed slightly lower electricity bills due to the time-based pricing plans. The researchers also calculated that both of the time-based default programs, but only one of the time-based opt-in programs, would be cost-effective for the utility company.

Finally, the researchers tried to understand whether consumers who were defaulted into the time-based plans remained in the plans because of procrastination or high switching costs, in which case they might not actually be better off on the time-based plans, or because they grew to like the new plans. They concluded that

cally enrolled in one of two different time-based pricing plans but could opt out if they desired.



customers did not pay much attention to the initial default into a time-varying price-

ing plan, but that they grew to like it and responded by reducing electricity consump-

tion during high-priced periods.

—Dwyer Gunn

## Investing in Colleges Boosts Attainment More than Tuition Cuts

Despite rapid growth in federal spending to support postsecondary education, the proportion of the U.S. population completing two- or four-year colleges has grown slowly in recent decades. In **The Impact of Price Caps and Spending Cuts on U.S. Postsecondary Attainment** (NBER Working Paper No. 23736), David J. Deming and Christopher R. Walters note that nearly all federal programs are designed to lower the price individual students pay for a college education, and they ask whether lowering prices or increasing spending has a bigger impact on college enrollment and completion. Based on data from 1990 through 2013, they conclude that tuition changes have only modest effects on enrollment and degree completion in U.S. public postsecondary institutions. They conclude that direct financial subsidies for these institutions might be more effective than tuition reductions if the goal is to increase degree completion. The researchers note that their results are mostly driven by variations in tuition and spending at non-selective public institutions, where per-capita spending is relatively low and student amenities are limited.

The researchers find that reducing the price of higher education through tuition cuts has no discernable effect on enrollment, while a 10 percent increase in institutional spending increases enrollment by 3 percent. They analyze data from the Integrated Postsecondary Education Data System and a newly constructed data source on state tuition caps and freezes imposed by state legislatures.

There are important differences across states, and within states over time, in financial support for postsecondary education. In California, inflation-adjusted per capita state government appropriations for higher education rose from about \$5,000 in 1990

Decreasing student costs by reducing tuition does not increase postsecondary attainment, but improving schools' quality and capacity does.

to \$6,000 in the early 2000s, then fell to less than \$4,000 in 2013. In Texas, inflation-adjusted per capita spending was steady at about \$4,000. Standard data from the Bureau of Labor Statistics and the Bureau of the Census are used to control for state and county economic and demographic differences. The estimates imply that the marginal

tutions to spend the money as they see fit. The researchers find that increased institutional spending leads to higher persistence of students—those who enroll are more likely to stay—and to greater degree completion among enrolled students.

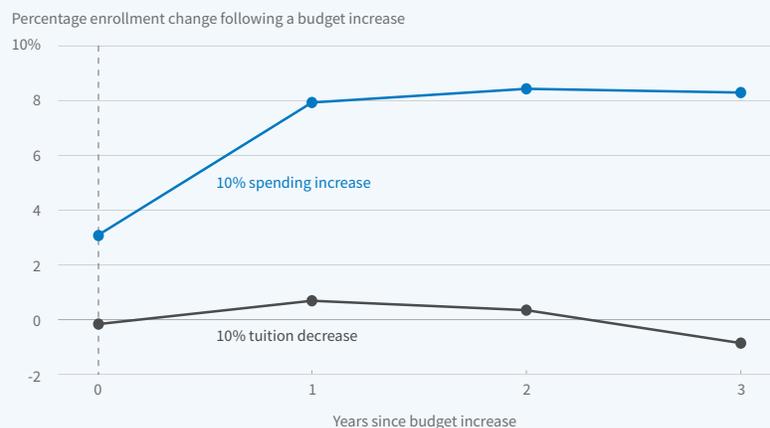
In recent years, informal capacity constraints have been reported in many public institutions. The researchers note that “reduced course offerings, long waitlists, little or no student guidance, and larger class sizes” all make it harder to complete a degree. They report that schools spend about 40 cents of every additional dollar of funding on instructional spending and academic support, and argue that this increased spending may enable schools to reduce informal capacity constraints.

There is some evidence that increased spending by public postsecondary schools crowds out enrollment in private institutions providing associate degrees, but no evidence that it has any effect on four-year degrees. The researchers conclude that “government programs aimed at reducing college costs will not increase degree attainment

if cost reduction is achieved by reducing per-student spending” because “spending cuts affect core instruction and academic support, generating large downstream impacts on educational attainment.”

—Linda Gorman

College Spending, Tuition Cuts and Enrollment



Source: Researchers' calculations using data from the Integrated Postsecondary Education Data System

cost of producing an additional bachelor's degree ranges from \$102,532 to \$155,451.

States can support postsecondary education by lowering the price students face, with tuition support or scholarships, or by funding colleges directly and allowing the insti-

## Other Fields Show Rising Interest in Economics Research

Economics is sometimes described as an isolated field that interacts little with other academic disciplines. In **Inside Job or Deep Impact? Using Extramural Citations to Assess Economic Scholarship** (NBER Working Paper No. 23698), Joshua Angrist, Pierre Azoulay, Glenn Ellison, Ryan Hill, and Susan Feng Lu ask whether this perception is accurate, and how the reality of economics' interdisciplinary interactions has evolved.

To measure the conversation between economics and other disciplines, the research team used "extramural" citations as a yardstick: how often papers in the journals of one discipline (such as the *American Economic Review*) were cited in the journals of another (such as the *American Sociological Review*). They used the Web of Science database, which records most academic journal citations, and studied the period 1970–2015. Their analysis considers only disciplines that rely on academic journals to disseminate scholarship.

Disciplines covered include social sciences (political science, sociology, anthropology, and psychology, as well as economics); business fields (finance, accounting, marketing, and management); mathematics-related fields (operations research, statistics, computer science, and mathematics); and a group of "other sciences" (multidisciplinary science,

public health, medicine, and physics).

Economics indeed cited other disciplines little in the 1970s and 1980s. But this changed starting around 1990: Economics

Other disciplines increasingly cite economics, and vice versa. This development parallels a rise in the importance of empirical work in economics.

has since been citing other social sciences more than psychology, and cites many non-social-science disciplines as much as or more than other social sciences do.

Economics is the most influential social science in seven of the 16 disciplines the researchers examined, and recently tied for first in two more. Sociology and psychology

sible for its greater extramural presence. Indeed, economics' extramural influence is boosted by the fact that different disciplines find something useful in different parts of the field.

The growing extramural impact of economics research parallels an important change in the nature of economics research. In the 1970s, economics research was more theoretical than it is today, and theoretical papers were cited far more than empirical ones. Since the 1990s, this has reversed: economics research is much more empirical and empirical economics research is now cited more often than other sorts of research.

For example, in the 1970s and 1980s, only one of the top 10 most cited economics papers was empirical, while, by the 2000s, six out of 10 were. The researchers hypothesize that empirical economics research has grown in quality as well as quantity. At the same time, they note that some disciplines in

which the influence of economics scholarship is growing, most notably computer science and operations research, have been and remain focused on economic theory.

—Jen Deaderick

### Citations of Economics Papers in Other Fields

Percent of total citations to economics papers



Citation rates are weighted by the importance of the citing journal  
Plots are smoothed using 5-year moving averages

Source: Researchers' calculations using data from Web of Science and EconLit

also have substantial extramural influence. Economics' extramural influence is growing in many disciplines; only in business disciplines has economics' influence recently faded.

No single field within economics is respon-

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