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The 2010 Affordable Care Act Dependent Coverage Mandate

The Affordable Care Act (ACA) required that health insurers extend dependent coverage to the children of their insured by September 22, 2010, as long as those children were under age 26, and regardless of whether they were married, dependent on their parents, or occupying a different residence. There were an estimated 29.5 million adults in the age category affected by the dependent coverage mandate, and insurers were not allowed to charge any more for this type of coverage than they did for coverage of younger children.

In **Effects of Federal Policy to Insure Young Adults: Evidence From the 2010 Affordable Care Act Dependent Coverage Mandate** (NBER Working Paper No. 18200), **Yaa Akosa Antwi, Asako Moriya**, and **Kosali Simon** estimate that the ACA's dependent coverage mandate increased the percentage of 19–25 year olds with

> "The ACA's dependent coverage mandate increased the percentage of 19–25 year olds with health insurance from 66 to 70 percent, an increase of about 938,000 individuals."

health insurance from 66 to 70 percent, an increase of about 938,000 individuals. Prior to the law's implementation, the federal government had estimated that dependent coverage would produce overall gains in health insurance somewhere in the range of 190,000 to 1.64 million individuals.

The authors conclude that the ACA "erased about one-third of the uninsurance among targeted individuals" with parental, employer supplied insurance. The increase in dependent coverage came both from those who were otherwise uninsured and from those who were either insured by their own employer or had individually purchased policies. Even though there was greater take-up of coverage when the marginal cost of adding an individual was low, around 13 percent of eligible dependents remained uninsured despite the fact that their parents had employer supplied policies. There was no evidence that the dependent coverage mandate affected the probability of employment, but the authors did find that the law was associated with a reduced prevalence of full-time work and a statistically significant reduction in hours of work.

— Linda Gorman

Enhancing the Efficacy of Teacher Incentives

In recent years, a number of U.S. states and school districts have implemented teacher financial-incentive plans, also known as merit pay, with the goal of increasing student achievement. Some past studies have shown that such reform attempts, which pay teachers bonuses after their students hit certain goals, have had limited effects on student achievement.

In **Enhancing the Efficacy of Teacher Incentives Through Loss Aversion: A Field Experiment** (NBER Working Paper No. 18237), co-authors **Ronald Fryer, Jr., Steven Levitt, John List,** and **Sally Sadoff** find that using an alternative "loss aversion" incentive — with teachers being paid bonuses in advance and asked to give money back if students don't achieve specific results — significantly improves student achievement. Their results also suggest that loss-aversion incentives might be used in the corporate world in the pursuit of profits.

Although earlier studies have confirmed a correlation between teacher quality and student achievement, the challenge to date has been identifying quality teachers and providing proper incentives for all teachers to successfully strive for improved and lasting student achievement. At least ten states and numerous school districts in the United States have adopted programs that reward teachers with extra pay after students achieve certain goals

on tests or report cards, but these "traditional" incentive programs generally have not had large effects on long-term student performance.

Fryer and his co-authors conduct a field experiment of teacher incentives using the concept of loss aversion — that is, by framing incentives as losses rather than gains. They worked with schools in Chicago Heights, Illinois, which is located thirty miles south of Chicago and has nine K–8 schools with a total of about 3,200 students, during the 2010–11 school year. Chicago Heights' schools are made up of primarily low-income minority students who struggle with low achievement rates.

In cooperation with school administrators and the teachers' union, the authors randomly selected 150 volunteer teachers and divided them into two main categories. The "gain" group was subject to traditional merit-pay incentives distributed after student achievement levels were determined and met; the "loss" group was subject to loss-aversion incentives that gave bonuses in advance, with the stipulation

that money would be returned by teachers if students didn't hit stipulated test goals at the

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"Loss-aversion incentives increased math test scores between 0.2 and 0.4 standard deviations."

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end of the school year. With a pool of $632,960 to distribute in incentive payments, the authors further subdivided the "gain" and "loss" groups in order to measure individual-based and team-based teacher incentives.

Using benchmarks from prior student test scores and final end-of-school-year ThinkLink Predictive Assessment test results, the authors find that loss-aversion incentives increased math test scores between 0.2 and 0.4 standard deviations, or the equivalent of increasing teacher quality by more than one standard deviation. The traditional "gain" incentives yielded "smaller and statistically insignificant results." Similar patterns were found in reading test scores — and in both individual-based and team-based teacher incentive approaches. The authors did not identify any other factors, such as student absenteeism or outright cheating in test scores, which could explain the differences in achievement results.

— Jay Fitzgerald

Letter Grading Government Efficiency

Alberto Chong, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer examine the operations of the postal services in 159 countries as a lens for measuring the quality of government in those nations. In an experiment, they mailed ten letters to non-existent business addresses in each of the countries and then recorded whether they came back to the return address in the United States, and how long that took. Each envelope included a return address and a request to "please return to sender." About 60 percent of the letters were returned, but on average it took over six months for that to happen.

In **Letter Grading Government Efficiency** (NBER Working Paper No. 18268), the authors argue that this approach to measuring government efficiency has several key advantages. First, mail is a fairly simple and universal government service. Second, neither corruption nor politics play a role in the services they evaluate, because it is impossible to ask the American sender of the letter for a bribe and no political purpose is served by either returning the letter or throwing it out. It is a simple matter

> "[There is] enormous variation in government efficiency as measured by the probability and the time of returning ... [a mis-addressed] letter."

of postal employees doing their job, or not doing it.

The researchers find enormous variation in government efficiency as measured by the probability and the time of returning the letter. They received all of the letters back from 21 countries, including Canada, Norway, Germany, Japan, Uruguay, Barbados, and Algeria. No letters came back from 16 countries, most of which are in Africa but also including Tajikistan, Cambodia, and Russia. According to the postal convention, to which all the countries are signatories, a country should return such letters within a month, but none met that goal. Four countries sent all of their letters back within 90 days (United States, El Salvador, Czech Republic, and Luxembourg), while 42 coun-

tries did not manage to return any in that period. Overall, only 35 percent of the letters came back within three months.

In statistical terms, these measures of government efficiency are highly correlated with per capita income and a country's human capital, similar to more standard survey measures. They are also correlated with the sophistication of postal technology in a country, professionalism of a country's bureaucracy, and more generally the quality of its management. The authors conclude that "it is ... important to recognize that not all bad government is caused by politics ... perhaps even the more political aspects of poor government, such as corruption, may be a reflection of problems similar to those of the private sector, such as mismanagement ... [and] the failure of monitoring and incentive systems."

— Matt Nesvisky

Mental Accounting and Gasoline Consumption

While conventional economic theory suggests that decision makers treat a dollar as a dollar no matter how it was earned or is to be spent, in practice some households

may engage in "mental accounting" — setting aside special budgets for certain purposes, like food, clothing, or transportation. Households that budget this way may respond to a given income gain, or loss, differently depending upon how it arrives. For example, a household may react differently to a tax rebate than to a comparable raise in salary. Or, a household may reduce spending on vehicle-related luxuries more in response to an increase in fuel prices than in response to a comparable loss in financial wealth.

In **Mental Accounting and Consumer Choice: Evidence from Commodity Price Shocks** (NBER Working Paper No. 18248), **Justine Hastings** and **Jesse Shapiro** consider this type of mental accounting with data on purchases of gasoline. Using aggregate data covering 1990 to 2009 and data on purchases at a retailer for 2006 to 2009, the authors find a clear and positive effect of gasoline prices on the market share of regular gasoline, the lowest quality gasoline available. When the price of gasoline

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increases — typically by similar amounts at all quality levels — the market share of regular gasoline increases while the market share of higher quality gasoline falls.

The extent of this substitution from higher quality gasoline to regular gasoline cannot be explained by income effects alone. During the 2008 financial crisis, for example, the income effect would have predicted an increase in the purchases of regular gasoline and a decrease in the purchases of premium gasoline. In practice, the opposite occurred.

Moreover, the income effects necessary to explain the relationship between gasoline prices and quality choices are extremely high. Households adjusted their mix of gasoline purchases almost 20 times more to a reduction in their buying power because of an increase in gasoline prices than to an equivalent reduction in income from other sources.

Psychological models of decision making may be able to help explain the buying patterns observed in the data. These findings also have interesting implications for retailer behavior — they indicate that consumers will put a higher premium on saving money on gas in high-gas-price times than in low-gas-price times. This implies that retailers will face more intense competition during high-price times. That prediction is borne out in data that shows lower retail margins on gasoline in periods when oil prices are high.

— Claire Brunel

The Value of Bosses

One extreme view of the labor market holds that bosses are irrelevant and that worker productivity is unaffected by the choice of supervisor. Anyone can do the supervisor's job because the supervisor has little direct impact on worker output. At the other extreme, is the view that workers are indistinguishable and that the output of the firm depends only on how well bosses use labor. Whichever is the case, we know that a significant fraction of resources is devoted to supervision: among manufacturing workers, front-line supervisors comprised 10 percent of the non-managerial workforce in 2010; among retail trade work-

ers, front line supervisors comprised 12 percent of the non-managerial workforce.

In **The Value of Bosses** (NBER Working Paper No. 18317), authors **Edward Lazear, Kathryn Shaw,** and **Christopher Stanton** use data from a large service oriented company to examine the effects of bosses on their workers' productivity. They estimate the daily productivity for 23,878 workers matched to 1,940 bosses over five years and find that bosses vary greatly in productivity, with the difference between the best bosses and the worst bosses being significant.

The average worker at the firm they study produces about 10.3 units of output per hour.

Bosses in the top performance decile increase each worker's output by about 1.3 units per hour, or more than 10 percent of average output, relative to bosses in the bottom decile. Given that the typical boss supervises about nine workers, this amounts to a change in total productivity that is larger than the amount produced by the average worker. Based on what the authors believe is a conservative estimation method, the average boss adds about 1.75 times as much output as the average worker,

which is in line with the differences in pay received by the two types of employees.

"Replacing a bad boss with a good one increases productivity of each subordinate's output by more than 10 percent."

The authors further determine that the boss's primary job is teaching, defined as providing skills that persist. Contemporaneous motivation of workers is secondary. They also observe that the worst bosses are unlikely to be retained. Over a one-year period, bosses in the lowest 10 percent of the quality distribution are 67 percent more likely to leave the firm than bosses in the top 90 percent of the distribution.

— Lester Picker

Entrepreneurship and Urban Growth

Cities with a high level of entrepreneurship experience more job growth than cities with few entrepreneurs, but exactly why is not known. In **Entrepreneurship and Urban Growth: An Empirical Assessment with Historical Mines** (NBER Working Paper No. 18333), authors **Edward Glaeser**, **Sari Pekkala Kerr**, and **William Kerr** search for an answer by comparing cities located near versus far from mineral mines in the year 1900. They conclude that, even

decades later, cities that were close to mines at the turn of the century are populated by large-scale businesses that encourage executives but crowd out entrepreneurs. "[A] city's historical proximity to mineral and coal deposits [in 1900] is strongly correlated with larger average establishment size for manufacturing in 1963 and subsequently."

Their findings suggest that a city's industrial mix, and the size and types of firms in it, can have very long-lasting effects on its entrepreneurial culture.

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Glaeser and his co-authors observe that employment growth in start-up firms is lower in cities close to mines than in cities farther from mines. This relationship lasts for genera-

tions, and even occurs in cities unrelated to mining. "Proximity to mines in 1900 predicts larger establishments, less entry, and less urban growth in trade, services, and finance today," they write.

The authors investigate whether their findings are attributable to a general decline in cities built around mines, such as Pittsburgh, that occurred during the 1960s, and if that may have made it difficult to begin new entrepreneurial ventures. However, they find the same phenomenon in cities in warmer climates with booming employment as in older Northern cities:

proximity to historical mines still dampens their job growth. Their results hold when they model a variety of growth projections for cities, or when they separate out effects by whether cities are growing faster or slower than expected, based upon initial traits. They conclude: "These results and their stability suggest that mines influenced modern entrepreneurship with a much deeper foundation than U.S. regional evolution."

As a final step, the authors investigate how the legacy of past industrial structures influences how dynamic the city's

economy is today. They show that cities with greater initial entrepreneurship exhibit an up-or-out dynamic in their economies — similar to that recently observed for the employment growth of young businesses. This process results in much of the employment growth from start-ups ultimately being retained in larger businesses, rather than in an endless replication of small firms. Higher entrepreneurship in 1982 also is associated with a younger average age of firms in 2002, even among a city's top 25 employers.

— Laurent Belsie

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