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Eating Your Way to Higher Test Scores

Because public schools can lose federal funding as a result of poor student performance on standardized tests, they have begun paying more attention to test scores. Although the hope was that schools would focus solely on raising test scores by improving student achievement, school officials have responded in other ways as well. Among the known adaptations are removing potentially poor performers from the test pool by reclassifying them as “disabled” and providing students with answers to test questions.

In **Food For Thought: The Effects of School Accountability Plans on School Nutrition** (NBER Working Paper No. 9391), authors **David Figlio** and **Joshua Winicki** examine whether schools exploit a more subtle method to increase test scores: changing their lunch menus. Several studies have suggested that consuming glucose before taking tests may increase scores. Under the Department of Agriculture School Meals Initiative for Healthy Children, schools must meet nutritional guidelines over a one-week period. This gives menu

planners the flexibility to alter meals from day to day. Given the software available for school menu planning and nutrient analysis, food service directors also have the tools to fine tune the menu.

Using information from a random sample of 23 Virginia school districts, Figlio and Winicki com-

pared the calorie increase a result of serving students their favorite meals — pizza, cheeseburgers, and tacos, as measured by sales data — on test days.

School districts that increased calories on test days experienced increases in 5th grade pass rates of 11, 6, and 6 percent respectively on

“School districts that increased calories on test days experienced increases in 5th grade pass rates of 11, 6, and 6 percent respectively on the mathematics, English, and history/social studies tests.”

pare the nutritional and caloric content for school meals over the testing cycle for the Virginia Standards of Learning school accounting system. They find that the schools most likely to increase the caloric content of their lunches are those in districts with threatened schools. In those districts, school lunches averaged 863 calories during testing periods, 761 calories before, and 745 calories after. Though calories increased, nutrients did not. Nor

the mathematics, English, and history/social studies tests. Although the authors caution that their results are to be treated with caution because of small sample size, they suggest “that test score gains associated with accountability systems may in part be artifacts of manipulation rather than improved efficiency, particularly for schools on the margin.”

— Linda Gorman

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The Information in Equity Analyst Reports

In recent years, significant attention has been paid to the relationship between analysts' stock reports and the performance of individual stocks covered in those reports. Analyst reports provide independent information to the capital markets. In **Information Content of Equity Analyst Reports** (NBER Working Paper No. 9246), authors **Paul Asquith, Michael Mikhail, and Andrea Au** find that equity markets react significantly and positively to changes in analysts' recommendation levels, earnings forecasts, and price targets.

The market reaction to revisions in price targets is stronger than to an equal percentage change in an analyst's earnings forecasts. When analysts' earnings forecast are issued, the market takes into account the strength of the analysts' arguments. The stronger the justifications for the analysts' recommendations, the larger the market's reaction to the report. The market

tends to discount good news and amplify bad news when the brokerage is not independent of the firm.

The authors also find that investors place greater reliance on security analysts' reports when they are reiterations or downgrades, as

The authors also find that there is no systematic association between the security valuation method used by a particular analyst and either the market's reaction or the probability of that analyst achieving the predicted price target.

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opposed to upgrades. Again, the strength of the analysts' arguments and the price target revision account for a significant proportion of the observed market reaction in these cases.

Analysts correctly predict price targets slightly over half of the time. When the predicted price target is missed, the average maximum or minimum price observed for projected increases or decreases is 84 percent of the price target.

The authors used 1,126 complete reports written by 56 "All American" analysts from 11 different investment banks, covering 46 industries during the period 1997-9. The reports include 262 upgrades, 739 reiterations, and 125 downgrades. The authors acknowledge the potential for selection bias, since only those firms willing to make their reports publicly available are included in this analysis.

— Les Picker

Lower Social Security Benefits Reduced Mortality

A considerable body of research suggests that people with lower incomes have poorer health and higher mortality rates than higher income individuals. In 1996 when an advisory commission found that the Consumer Price Index overstated the growth in prices by about 1.1 percentage points per year, and therefore recommended that federal programs — such as Social Security — take into account this over-indexation for inflation by reducing benefits, critics cited that body of research. Witnesses at a Congressional hearing on the matter suggested that

this would raise mortality rates among the elderly by making them poorer and thus less healthy. They painted a grim picture of the elderly on fixed incomes, forced to choose between purchasing food or prescription drugs.

ier to earn more money. Or, those with lower incomes may not be able to afford proper care and thus may have other financial troubles that weigh on their health. So, researchers have found it difficult to figure out which way the causation goes in this

"Retirees with smaller Social Security benefits had a lower age-specific mortality rate than retirees with more generous benefits."

The problem with this research, though, is that income and health are jointly determined. For example, the healthy may find it eas-

correlation between income and life expectancy.

In **The Impact of Income on Mortality: Evidence From the**

Social Security Notch (NBER Working Paper No. 9197), **Stephen Snyder** and **William Evans** explore a way to get around this puzzle. They compare the mortality rates of two groups of elderly males affected by a major change in the Social Security laws which arbitrarily trimmed the pensions of later retirees compared to those before them. To the surprise of the authors, they find that those later retirees with smaller Social Security benefits had a lower age-specific mortality rate than retirees with more generous benefits.

Concerned with rapidly rising costs, the federal government changed the way that benefits were calculated for new beneficiaries in 1977. This substantially decreased the size of payments for recipients born after January 1, 1917. As a result of these changes, two people with identical earnings histories but different birth dates would receive substantially different retirement incomes. Those born after what is

called the “Notch” had little time to adjust since the changes happened late in their work lives. Most did not even realize the impact of the law’s changes on payments until after they retired.

Snyder and Evans compare the five-year mortality rates after age 65 for those born in the fourth quarter of 1916, just before the Notch, with those born in the first quarter of 1917. To the surprise of the authors, they find that those younger retirees with smaller Social Security benefits had a lower mortality rate than retirees with more generous benefits. Since there is little difference between the cohorts except their Social Security income, the authors attribute this difference to the lower incomes generated by the “Notch.” The authors test this counterintuitive result by examining the mortality rates for women from the same cohorts. Most women from these birth cohorts receive Social Security benefits as a result of their husbands’ contributions to the system,

and there is little difference in Social Security earnings across these two groups. Therefore, there should be no difference in mortality across these groups, which is exactly what the authors find.

So, why did the poorer retirees live longer? Snyder and Evans find that smoking patterns do not explain the higher mortality rate for the higher-income retirees. The younger cohort, those born after the Notch, responded to lower incomes by increasing the amount of their post-retirement work by 5 percentage points more than those born earlier; there was a large increase in work after age 67. Some probably returned as part-time workers, often in different industries, sometimes at reduced wages from their primary career employment. “This work could have positive health benefits if the work keeps the seniors connected to the community and reduces social isolation,” the authors speculate.

— David R. Francis

The Internet Changes the Labor Market

The computerization of business and telecommunications has led to much talk about the “new economy” and, possibly, a related surge in productivity. A less recognized development is that information technology, particularly the Internet, is changing the labor market and labor organizations in important ways.

For one thing, the increased demand for those working with the Internet, and computers more broadly, has boosted both their wages and the hours they work, NBER Research Associate **Richard Freeman** finds. Further, the low cost of transmitting information over the Internet is shifting job search and recruitment activities to the Web, he adds. Third, the ease of

communicating and interacting over the Internet has led unions to experiment with web-based modes of servicing members, perhaps thereby improving union democracy and reversing the long-run decline in membership, and carrying their message to the wider public.

“The new technologies, together with other important changes, such as the continued increase in the educational attainment of the work force, shift of employment to service sectors, and increased employment of women, are producing a labor market that differs greatly from the industrial labor market that characterized the 20th century,” Freeman writes in **The Labor Market in the New Information Economy** (NBER Working Paper

No. 9254).

Those working with computers or the Internet tend to work 5 to 6 percent more hours than other workers, Freeman finds. Those who work with the Internet work 4 percent more hours than those who use computers but not the Internet. The actual time worked may be even higher, Freeman notes, since the workers surveyed presumably did not add time worked at home, checking email from there, sending business messages, or working at home with a computer at night or on weekends. On the other side, workers in their offices may spend time surfing the Internet for personal non-work reasons. Various surveys suggest they spend two or three hours per week at work visit-

ing finance, news, and even adult content pages on the Web. Yet it is plausible, Freeman writes, that personal use of the Internet at the workplace simply substitutes for other forms of leisure on the job, such as a coffee break or lunchtime, or other “downtime.”

Freeman notes that despite the rise of computer-based work at home, much important information — business, scientific, or technological — apparently still requires human interaction to be effectively transmitted. So location does matter. Nonetheless, the Internet could produce subtle changes in the coordination and timing of business activity beyond the “death of distance,” Freeman suggests. Firms may divide a work project so that people in one time zone begin the project, then pass the product to people in another zone, who do the same.

Freeman points out that one of the true successes of the dot.com world has been Internet recruitment firms. Half of unemployed Americans with home access to the Web used it for job search in 2001 and 15 percent of the employed with home access also looked for a new position. That’s especially true of younger workers. Altogether, 8 percent of the entire labor force (with or without home access) reported looking for jobs on the Web. The rapid expansion of job search and recruit-

ment on the Web, Freeman explains, is because the Internet is the lowest cost way for workers to get information about jobs being offered and for employers seeking workers to get information about persons seeking work. Firms can post advertisements for jobs on the Web for roughly a tenth the price of buying a want ad in newspaper classifieds and obtain rapid responses through on-line applications. Workers can

standard media channels and thus can pressure firms to acquiesce to union demands. Unions already have used the Internet to organize wider protests to help workers in disputes in particular localities.

Unions also can organize workers on-line and develop a virtual presence, even at companies where the union lacks sufficient membership to gain recognition. The United Food and Commercial

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search a wide variety of jobs, apply relatively easily for those jobs without leaving their home or office, and be notified by e-mail by an interested firm. Job sites, as well as offering reduced transaction costs, should offer potentially speedier clearing of the job market and better matching between workers and vacancies.

Further, Freeman writes, the Internet can increase worker and activist solidarity, creating a new internationalism by linking unions and sympathizers around the world with instant labor news and instant communications. And, unions can use the Internet to present their case to members, business, and the general public without going through

Workers union, for instance, has a site for Wal-Mart workers to keep up with its unionization campaign. The Web could also create a greater opportunity for union democracy by allowing rank-and-file members to participate more fully in decisions and give dissidents greater ability to make their case against incumbent leadership. Some unions have organized Internet voting on particular issues, but most use it to communicate with workers rather than to involve them in decision-making. Freeman expects unions to attempt to develop the right mix of services and activities on the Web to help them survive and be relevant.

— David R. Francis

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