How School Administrators Cheat the Accountability Rules

Schools in dozens of states face accountability measures based on aggregate student performance on standardized tests. The consequences of poor performance in these accountability systems include giving parents increased choice of schools, either within the public sector or through vouchers for private schools; reconstitution of the school; or closure, in the event of persistent identified failure of a school to improve. Just as some students respond to high-stakes exams by cheating, some school administrators “game the system” when faced with serious consequences if it seems likely that their students will not perform adequately in special testing programs.

On January 8, 2002, President George W. Bush signed into law the reauthorization of the Elementary and Secondary Education Act, also known as the No Child Left Behind Act of 2001 (NCLB). The centerpiece of this legislation involves implementing a system of school accountability. States must design systems of school report cards based on the fraction of students demonstrating proficiency in reading and mathematics.

If students do not make adequate yearly progress, then schools and districts face consequences, including mandatory public school choice and the possibility of school restructuring. In addition, states risk the loss of federal administrative dollars as federal funds are redirected elsewhere. Another risk is that, if the schools are graded lower by the government, the district will become less attractive to potential and current residents and that will hurt prices in the housing market.

In Accountability, Ability and Disability: Gaming the System (NBER Working Paper No. 9307), Research Associate David Figlio and co-author Lawrence Getzler study the effect of the introduction of the Florida Comprehensive Assessment Test (FCAT) in 1996 in six large counties in Florida that are not identified in the paper. Examining highly detailed data from a panel of as many as 4.1 million students, the authors find that the schools did “game the system” by reshaping the test pool. Schools reclassified students as disabled, putting them into “special education” programs exempt from the state tests, and therefore ineligible to contribute to the school’s aggregate test scores. Following introduction of the testing regime, schools reclassified low-income and previously low-performing students as disabled at significantly higher rates. Moreover, these behaviors were concentrated among the low-income schools most likely to be on the margin of failing the state’s accountability system.

Figlio and Getzler conclude that the introduction of the FCAT test is associated with an increase in the likelihood that a student will be classified as disabled by 5.6 percentage points. Altogether, 8.9 percent of the sample of students is identified as having a test-excludable disability. So the tests resulted in more than a 50 percent higher rate of disability classification in these six counties. Moreover, schools are more likely to switch low-performing students from a test-included category to a test-excluded disability following the introduction of the testing regime. Those schools with a higher rate of poverty, indicated by how many students are eligible for free lunches, tend to be more aggressive in reclassifying previously low-performing students as disabled, apparently hoping to avoid being classified as a failing school.

The reclassification of students as disabled “profoundly affects the student’s individual educational experience,” the authors note. It also reduces the accuracy in the grades or classifications given to schools based on the accountability exams, and thereby reduces the potential effectiveness of a public policy aimed at improving the educational system. Some students may end up in special education but would be better off in traditional classes. The trend also has an impact on total school costs, since special education on average costs 1.9 times as much per student as regular education.

Under the new federal NCLB Act, all students, including those with disabilities, will be included in the accountability testing system. Students must meet or exceed the state’s proficient level of academic achievement by the end of the school year 2013-14, with intermediate goals along the way. Nonetheless, there will remain incentives to game the system, the authors state. For one thing, NCLB...
does permit giving those students with disabilities additional time to take the tests. Also, since schools will be required to have the same minimum percentage of students meeting proficiency, or at least to decrease the percentage of non-proficient students by 10 percent annually, they will continue to have an incentive to place relatively high-achieving students, say those with mild dyslexia, into the disability category to improve the probability of attaining adequate yearly progress.

— David R. Francis

The Effect of Heavy Vehicles on Traffic Safety

In recent years Americans have been buying increasingly heavy vehicles, creating what NBER Research Associate Michelle J. White calls an “arms race” on America’s roads. Between 1980 and 1998, sales of heavier vehicles, primarily light trucks, SUVs, and vans, more than tripled, from approximately 2 million to 7 million per year. As a proportion of all registered vehicles, their numbers increased from 21 percent to 37 percent.

In The “Arms Race” on American Roads: The Effect of Heavy Vehicles on Traffic Safety and the Failure of Liability Rules (NBER Working Paper No. 9302), White divides the cost of accidents into internal benefits versus external costs. She finds that while drivers view large vehicles as a way to better protect their occupants (internal benefits), in the event of an accident those same larger vehicles pose a greater danger to occupants of smaller vehicles and to pedestrians and bicyclists (external costs). When drivers replace cars with light trucks, 3700 additional crashes per year involving fatalities of smaller vehicle occupants, pedestrians, and bicyclists occur, while only 1400 crashes involving fatalities of light truck occupants are avoided. This produces a ratio of negative external effects to positive internal effects of 2.5 to 1.

White argues that none of the existing traffic laws or highway safety institutions force drivers of heavy vehicles to be held responsible for the negative external effects of their ownership. Tort liability, for example, could fall more heavily on owners of heavy than light vehicles. That would both cause drivers of heavy vehicles to use additional care to avoid accidents and discourage them from driving heavy vehicles in the first place. However, liability for automobile damage is generally based only on negligence, irrespective of vehicle weight class. In addition, many states use no-fault systems rather than negligence rules to determine liability. The current system does not penalize drivers of heavy vehicles at all for causing disproportionate deaths and damage.

“The current system does not penalize drivers of heavy vehicles at all for causing disproportionate deaths and damage.”

White describes reforms that would mitigate the negative effects of driving heavier vehicles, including lower speed limits and more stringent driving rules for heavier vehicles, requiring that all vehicle owners in all states buy liability insurance, raising the minimum required levels of liability insurance coverage, and replacing no-fault liability systems for motor vehicle accidents with fault-based systems.

— Les Picker

Why Economic Downturns Have Favorable Effects on Mortality

In Healthy Living in Hard Times (NBER Working Paper No. 9468), author Christopher Ruhm examines how the “lifestyle behaviors” of smoking, weight gain, and exercise are affected by economic conditions. Smoking, the most preventable cause of disease in the United States, leads to roughly 430,000 premature deaths a year by increasing cancer, coronary heart disease, stroke, and respiratory illness. Obesity, the second leading cause of preventable death, is a major risk factor for hypertension, type-2 diabetes, coronary heart disease, stroke, gallbladder disease, and respiratory problems, causing an estimated 300,000 deaths a year. Regular exercise, however, is cited by the U.S. Department of Health and Human Services as a behavior that has a positive effect on overall health by lowering heart disease, diabetes, colon cancer, and osteoporosis. Exercise also increases muscle and bone mass, a key component for weight loss, and makes a person feel better overall.

Recent studies show that mortality decreases when the economy damp-
Wage Compression Limits Quality of Public Sector Workers

The financial rewards offered by the public sector may be inadequate to attract and retain highly skilled and highly motivated workers, according to a recent study by NBER Research Associate George Borjas. This is not because the level of average wages lags the private sector, a common benchmark used for measuring the economic incentive to take public and private sector jobs. In The Wage Structure and the Sorting of Workers into the Public Sector (NBER Working Paper No. 9313), Borjas focuses on wage dispersion...
Borjas shows that the wage distribution in the public sector has been relatively stable over the past 20 years, while wage dispersion in the private sector has increased. Looking at the ratio of the standard deviation of log weekly wages between the public and private sector, he shows that this ratio was 0.9 in 1971 and declined to .75 by the late 1990s. The debate about the causes of the rise in private sector wage dispersion centers around the role of skill-biased technical change, the increased globalization of the economy, immigration, and declining union membership.

Borjas shows that the wage differential between people who had just quit the public sector and workers who were about to enter that sector is strongly and negatively correlated with the relative dispersion of incomes in the public sector. As the wage structure in the public sector was stable over the period, while it peaked at 17 percent for men and 22 percent for women in the mid-1970s. By 2000, 14 percent of men and 19 percent of women were public sector employees. In general the gap between private and public sector wages for a typical male employee was stable over the period, while it declined substantially for women.

“The substantial widening of wage inequality in the private sector and the relatively more stable wage distribution in the public implied that high-skill workers became increasingly more likely to end up in the private sector.”

— Andrew Balls

The National Bureau of Economic Research is a private nonprofit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:

Martin Feldstein — President and Chief Executive Officer
Susan Colligan — Vice President for Administration and Budget
Michael H. Moskow — Chairman
Elizabeth E. Bailey — Vice Chairman

Contributions to the National Bureau are tax deductible. Inquiries concerning the contributions may be addressed to Martin Feldstein, President, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

The NBER Digest summarizes selected Working Papers recently produced as part of the Bureau’s program of research. Working Papers are intended to make preliminary research results available to economists in the hope of encouraging discussion and suggestions for revision. The Digest is issued for similar informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Digest has been reviewed by the Board of Directors of the NBER.

The Digest is not copyrighted and may be reproduced freely with appropriate attribution of source. Please provide the NBER’s Public Information Department with copies of anything reproduced.

Preparation of the Digest is under the editorial supervision of Donna Zerwitz, Director of Public Information.

Individual copies of the NBER Working Papers summarized here (and others) are available free of charge to Corporate Associates. For all others, there is a charge of $5.00 per downloaded paper or $10.00 per hard copy paper. Outside of the United States, add $10.00 per order for postage and handling. Advance payment is required on all orders. To order, call the Publications Department at (617) 868-3900 or visit www.nber.org/papers. Please have the Working Paper Number(s) ready.

Subscriptions to the full NBER Working Paper series include all 500 or more papers published each year. Subscriptions are free to Corporate Associates. For others within the United States, the standard rate for a full subscription is $2200; for academic libraries and faculty members, $1275. Higher rates apply for foreign orders. The on-line standard rate for a full subscription is $1500 and the on-line academic rate is $650.

Partial Working Paper subscriptions, delineated by program, are also available. For further information, see our Web site, or please write: National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

Requests for Digest subscriptions, changes of address, and cancellations should be sent to Digest, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398. Please include the current mailing label.