

Solutions to social problems can be worse than original programs

Imagine that you are among a group of people marooned on a desert island. One man in the group has an annoying tic, which a surgeon says could be cured by brain surgery. Unfortunately, the only instrument available on the island is a wooden spoon.

What do you do? Crack the man's skull open and operate with the wooden spoon?

Most of us understand that it is not enough to say that there is a problem. What is proposed as a solution has to be judged by whether we have instruments that will actually make things better, rather than worse.

Those who are forever dreaming up social programs never seem to approach issues that way. If there is something that they would like to see different — a "problem" — then to them it seems to follow, as the night follows the day, that the government should create a solution.

Decades of disasters from well-intentioned social programs have still not brought some people to reconsider whether they are using an instrument that just cannot do the job. They seem to think that if a particular program turned out badly, it just needs to be modified until we find a way to make it work better. It never occurs to them that they may be using the wrong instrument.

The government can lock up criminals and keep them off the street. But the idea that it can "rehabilitate" criminals or "supervise" them on parole or probation would be a hilarious joke if there were not so many innocent victims who have paid with their lives for such pretentious nonsense.



THOMAS SOWELL

Some criminals have undoubtedly changed their ways, just as some alcoholics have given up the bottle and made something out of their lives. But seldom was government the reason. Families, churches, self-respect and all sorts of other influences have turned some people around. But seldom was it bureaucrats, politicians or judges — which is what "the government" consists of.

The people who really know you and love you, the moral values that have stood the test of centuries — these are the surgical instruments that offer some hope of saving you. Government is the wooden spoon.

No amount of talk about "compassion," "commitment" or "innovation" — all favorite words of big-government liberals — will make up for the fact that government is just the wrong instrument for things that go to the souls of human beings.

Yet anyone who opposes using government to help people is depicted as being against helping people at all, as being "callous" and "uncaring." This kind of reasoning would get you a failing grade in Logic 1. But it goes over big in politics.

Most of the things the welfare state tries to do not only can be done privately but were in fact being done privately, long before politicians got into the act — and ruined it.

There were private colleges and universities in this country for more than a century before the first state university was founded. In fact, some of today's state universities — Rutgers and the University of Michigan, for example — began as private universities.

Even public libraries often began — as in New York — by being donated by private individuals. Long before there were public schools in this country, there were private schools — and not just for the rich.

Before the Civil War, most of the schools for blacks were private. It was 1916 before there were as many black youngsters going to public high schools as were going to private high schools.

Many of the schools set up for blacks after the Civil War were run by the American Missionary Society. But, half a century later, it was still a struggle to get the state of Georgia to set up the first public high school for blacks.

In short, what the welfare state is doing is essentially what private philanthropy was doing first and usually doing better.

Whatever the good intentions behind various government programs, once the program is in existence, those who run it have every incentive to perpetuate and expand the program, rather than eliminate the problem it was set up to solve.

Private help, whether by individuals, families or organizations, can be directed toward getting the poor out of their poverty and getting the fallen back on their feet. But do not expect bureaucrats to work themselves out of a job or politicians to watch quietly while their constituencies become independent of them.

Weapons used to fight Millennium Bug can be full of bugs themselves

By James Coates
CHICAGO TRIBUNE

Ask just about anybody who ever tried to level a crooked stool using a handsaw:

Sometimes trying to fix a problem just makes it worse.

You trim down the leg you think is too long, and then it's too short. So you saw off the other legs to match the first booby stool that still wobbles, but now it's too short as well as unstable.

The parable of the milking stool and the handsaw is cited frequently to describe the situation as computer experts realize that the very weapons they use to fight the Millennium Bug are themselves buggy.

"Bad fixes," as computer professionals have taken to calling them, are a major source of concern as the world's computer programmers scramble to unisnarl all the hardware and software built and programmed to keep track of years by the last two digits only.

This system collapses with potentially dire results when computers can't distinguish 1999 from 2000 as their internal clocks move past midnight, Dec. 31, 1999.

There are lots of ways to catch

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Will computers still function?

BUGS

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the software and fix that glitch — but the fix itself often induces another problem.

"Bad fixes are something that must be expected any time you take on programming at the amazing levels of intensity that the current crisis is creating," said Edward Yourdon, chairman of the Cutter Consortium, a company of information technology experts specializing in the Millennium Bug.

A bug-inspired virus

For example, Mica Hill of Las Vegas said he encountered the milking stool problem in January when he and a group of partners developed a program called Shelter Harbor 2000.

The program allows personal computer owners to insert a floppy disk in their machines and test them for Millennium Bug prob-

lems.

The bug fix software worked by setting the computer's date forward to after Jan. 1, 2000, and then examining how the machine and its software handled the event.

The software performed its task perfectly, creating a printed report showing exactly how each machine handled the transition.

But Hill said he was dismayed when some of his first customers found that using the Y2K disk triggered a virus — called Monkey V — that had been lurking in each machine, waiting for a trigger date to pass.

The virus locked up many of the computers and could have done worse damage if the testers hadn't complained.

"We spent a very large amount of effort trying to think of everything and prepare to handle all possible pitfalls, but we didn't come up with the idea that hackers are out there writing virus programs designed to kick in when the Year 2000 turns

ways that bug fixes can become bug-ridden themselves.

Programmers hatch new bugs simply by making ordinary mistakes — typing the wrong word for a command or ordering the software to jump to the wrong routine.

The Federal Aviation Administration found this out the hard way in 1997, when its programmers missed large numbers of flawed instructions while combing through the millions of lines of software code in the Enhanced Traffic Management System designed to spot major traffic bottlenecks.

As a result, the ETMS setup crashed during the first test, and a subsequent analysis found that 150,000 lines of software had to be rewritten.

Programmers write remedial software that works fine internally but is based on faulty assumptions.

Such a bug is written into Microsoft Windows 98, which is supposed to automatically detect the

start of daylight-saving time and advance the computer's clock one hour.

But the software will fail to note daylight-saving in 2001 because the algorithm for keeping dates in Windows 98 assumes that the changover happens on the first Sunday after the first Monday in April when, in fact, Sunday, April 1, 2001, will mark daylight saving.

As was the case with Shelter Harbor 2000, programmers sometimes fail to anticipate problems when one part of the programs they fix interacts unexpectedly with other features in the same system.

The U.S. Labor Department encountered this sort of bug in early January when a problem with a Y2K fix in the department's Internet software caused it to release the widely followed producer price index one day too early.

The tip of the iceberg

Most industry observers agree that these cases are the tip of an

iceberg of bad fixes that either will be found and fixed quickly or will slip through and cause problems.

Most also agree that because of legal liability issues, much of the drama will be kept under wraps. Richard Belouagh, a Chicago attorney specializing in Y2K issues, noted that a large number of consulting companies involved in fixing Y2K problems have stopped guaranteeing their work.

Belouagh explained: "As we get closer to the Year 2000, companies that are making repairs and fixes are trying to get clients to sign agreements that have no warranties or performance standards."

Yourdon agreed that legal skittishness will make the bad fix saga a difficult one to follow.

"If all goes well, you'll never hear about the bulk of the bad fixes that are getting written even as we speak. If all doesn't go so well, it will make for some interesting reading some time in the next century," he added.

Dubious statisticians have your number

By John Steele Gordon

Say the New York Mets lose four games, win the next four, then lose two more. Want to make them look bad? Just write, "The Mets have lost six of their last 10 games." But if you'd like to make them look good, that's just as easy: "The Mets have won four of their last six games." Both statements are "true," but convey a very different impression thanks to a simple technique of statistical deception called "choose your baseline."

If such shenanigans were restricted to baseball reporters, the Republic would probably totter on none the worse for it. But when political reporters, politicians, lobbyists and think tanks engage in such practices, it's a bit more serious.

Using statistics to one's advantage

Yet it happens all of the time. In discussions of "Reaganomics," for instance, left-of-center people often use 1978 as the starting point, whereas their right-of-center counterparts prefer 1982. The reason is simple: 1978 was a peak of the business cycle, thus minimizing the advances of the Reagan years, and 1982 was a trough. The fact that Reagan was actually inaugurated in 1981 is cheerfully ignored.

Artful baseline choosing is by no means the only way to lie with statistics, of course. There are thousands of methods, with new ones invented every day. Consider just a few:

► **Send in the factoids:** A factoid is a statement with a sufficient provenance to get past a fact-checker but with no actual basis in truth. In *Revolution from Within*, for instance, Gloria Steinem reported that

"in this country alone . . . about 150,000 females die of anorexia each year." Steinem's source, however, another feminist writer, got it from still another, who got it from the American Anorexia and Bulimia Foundation, which actually reported that there were between 150,000 and 200,000 sufferers of anorexia annually, not fatalities. The actual death rate from anorexia in 1991, according to the National Center for Health Statistics, was 54.

► **The old bait-and-switch ploy:** Words often mean one thing in everyday conversation and quite another in statistics. For instance, the statement, "wages have been falling in this country at the rate of .7% a year since 1973" is true. That amounts to a fall of about 15% in two decades, so it is not surprising that the statistic has been used frequently as an argument for throwing one politician or another out of office. But people tend to think of "wages" as meaning much the same as "income." Statistically, however, wages are just the cash income workers receive for a regular job. The self-employed, a swiftly growing segment of the workforce, receive no "wages," whether they are humble free-lance writers or Hollywood superstars getting \$20 million a picture. So while total wages have been declining, the percentage of the workforce receiving them has been declining, too.

Further, fringe benefits and other nonwage compensation, such as day care and dental care, have been expanding. These benefits have increased by a third as a percentage of wages since 1973 and "total compensation" — wages plus fringe benefits — has increased by 17%; meanwhile wages alone were falling by 15%. Likewise, nonwage income, such as interest, dividends, rents and profits, also has been increasing. So while "wages" have been declining, average total take-home income has been steadily increasing. That's why the average-size house built in 1970 had 1,500 square feet and in 1997 had 2,150.

'Lies, damn lies and statistics'

► **The don't-drop-the-other-shoe technique:** Another "statistic" widely quoted in feminist literature comes from the Society for the Advancement of Women's Health. It says that "only 14% (of National Institutes of Health clinical trials funding) goes to research 52% of the population." In other words, "women-predominant" diseases, such as breast cancer, get the short end of the stick. Sounds terrible, discriminatory, unfair! But wait a minute. At least 76% of NIH clinical trial grants go to diseases that affect both sexes, such as heart disease and lung cancer. Since $76 + 14$ equals 90, whether Washington lobbying groups like it or not, that means that "men-predominant" diseases are getting no more than 10% of the research money while women-predominant diseases get 14%.

It is just such techniques that caused Benjamin Disraeli, 130 years ago, to say that mendacity came in only three forms, "lies, damn lies and statistics." As President Clinton found out, the first two categories can have adverse consequences. Journalists would be doing their readers, and the Republic, a big favor by seeing to it that the last category of lies began to have some, too. Right now, quite frankly, it almost never does.

John Steele Gordon, an economic historian, is a contributing editor to *American Heritage* magazine.



By Ray Stubblebine, Reuters

Mets: How's player Brian McRae doing? Depends.

COVER STORY

BAD DATA

Flawed economic reports rattle markets, rifle pocketbooks

By Beth Belton
USA TODAY

The numbers the U.S. government releases every month look so authoritative: The economy grew 2.2% the third quarter. Consumer prices rose 3.3% the first 10 months of 1996. The October jobless rate dipped to 5.2%.

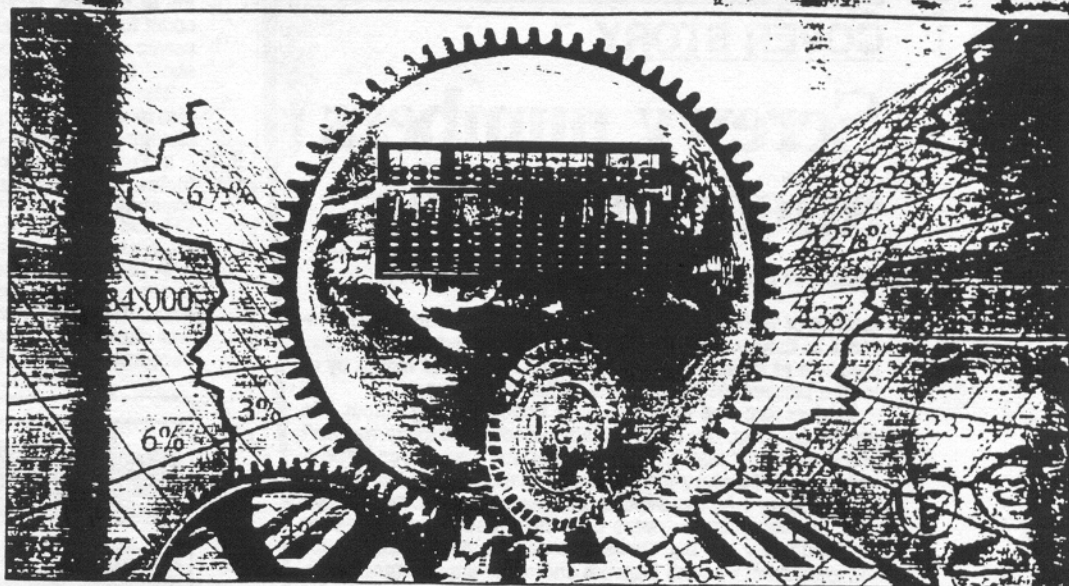
And the figures have enormous impact on American lives. The Dow Jones industrial average has plummeted 100 points or more just three times this year — all pegged to U.S. economic reports. In January, monthly Social Security checks mailed to 47.3 million retirees will jump an average \$21 on the belief that inflation is climbing at a 2.9% annual rate. The interest rate you pay to buy a house or a car or send a child to college on a student loan all depend indirectly on what Uncle Sam's statisticians say.

But many of the government's numbers are flat wrong — often by a wide margin, according to a two-month USA TODAY investigation.

► The government is wrong 25% of the time in its calculations of whether the economy is growing or shrinking, according to J. Steven Landefeld, who supervises the calculation of gross domestic product.

► Inflation is overstated by at least 1 to 1.25 percentage points, according to a Congressional report to be released tomorrow.

► Productivity growth — a key factor in measuring U.S. living standards — is being understated by



Source of graphic: PhotoDisc, USA TODAY

Photo illustration by Grant Jerling, USA TODAY

Government economic reports make headlines, trigger million-dollar trades on Wall Street and influence billion-dollar decisions in Washington. Yet the numbers are often wrong. Tomorrow, a congressional commission will report that the Consumer Price Index overstates inflation by at least a percentage point.

Gross Domestic Product

GDP is the broadest measure of the economy's health. It is the key gauge for ranking U.S. performance against that of other nations. But the government is undercounting economic output, perhaps by as much as \$7.5 billion a year.

The impact: Key to business planning. Helps firms decide whether to build factories and hire workers.

Consumer Price Index

The most widely used measure of inflation, the CPI is used to adjust most other government statistics to show changes in purchasing power. It also is used to determine cost-of-living adjustments. If the CPI is too high, exaggerated cost-of-living hikes could cost taxpayers and employers hundreds of millions of dollars.

The impact: Affects annual cost-of-living adjustments for:

- 47 million Social Security recipients
- 27 million food-stamp recipients
- 4 million military and civil service retirees
- 26 million children who get aid for school lunches
- 2 million private workers covered by union wage contracts
- 119 million federal income taxpayer brackets and personal exemptions.

Employment report

A monthly snapshot of the nation's labor supply, the employment numbers are a key influence on consumer confidence. Recently, unemployment has been at a seven-year low of 5.2%. But the government may miss counting hundreds of thousands of job seekers who have given up looking for work.

The impact: Makes financial markets gyrate.

Source: USA TODAY research

three-quarters of a percentage point, consulting firm DRI/McGraw-Hill estimates.

The problems are so severe that even Federal Reserve Chairman Alan Greenspan frequently ignores what the government says. "Greenspan may be a special case, but it's not uncommon" for most economists to guess because many of the numbers the government produces aren't to be trusted, says former Fed vice chairman Alan Blinder, a top contend-

er to run President Clinton's National Economic Council the next four years.

Among the most serious flaws:

► **Mistakes in GDP growth:** The government has two ways of calculating growth. One is output: total spent by consumers and businesses on goods and services produced. The other is income: total wages,

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COVER STORY

Screwy numbers affect everyone

Continued from 1B

salaries of workers and revenue of businesses and the government. In theory, the two should match. The past two years, the measure of income has been higher than that of output by at least a percentage point, a \$7.5 billion discrepancy.

The reason: The government is undercounting output. "In many instances, the most valuable asset a company has isn't being counted," says Everett Ehrlich, the Commerce Department undersecretary for economic affairs. Examples: the airline industry's hub-and-spoke computerized reservation system, the computer software code that manages factory-floor production for the Big Three automakers, the package-tracking systems at Federal Express and other express-mail firms.

The undercounting creates dangerous misperceptions for policymakers and investors. Consider: If long-term, inflation-adjusted GDP is understated by one-half a percentage point, it adds \$200 billion to federal budget deficit estimates over five years. That's \$200 billion added to long-term debt estimates that can't be allocated to spend on other government programs, such as defense or aid to the poor.

The federal government is woefully inadequate at making timely, accurate calculations about economic growth, Landefeld says. And "A tenth of a percentage point error can have a profound impact on every household in the land."

► **Undercounting the number of unemployed.** The nation's unemployment rate, at 5.2%, is at a seven-year low and job growth is solid, the government numbers say. Again, the government has two ways of tracking employment: one is a survey of 55,000 households nationwide, the other is a survey of payrolls at all businesses. And the two numbers should match within a few thousand over time. But they don't.



Substitution bias:

What happens:

When the price of beef soars, most consumers will temporarily substitute a cheaper alternative. What the statistics measure: The CPI assumes consumers continue buying beef.

The result: The CPI shows a huge increase in what consumers pay for meat. In fact, they may be paying less or about the same.

The household survey shows 1 million jobs a quarter have disappeared the past year, and no one is sure why or how. Those missing jobs aren't showing up in the business survey because the government adds up to 250,000 jobs a month to account for new businesses that haven't yet begun to file payroll reports. It's part of the seasonal adjustment process, but it's guesswork at best. Some analysts believe seasonal adjustments mask the existence of hundreds of thousands of unemployed job seekers.

► **Overestimating inflation.** Tomorrow, a bipartisan commission will report that the consumer price index — the government's chief inflation gauge — overstates the cost of living by a percentage point or more. (Story, 1A.) Correcting the error would require slashing the

inflation number by 33%. That means the typical Social Security recipient gets nearly \$100 more a year than what federal law mandates. And it's a \$48 billion difference in what the federal government must pay out each year — about twice what it spent on food stamps last year.

Why the numbers are wrong

The way the government spends its money gathering economic statistics hasn't changed much in decades. For example, 12% of the \$3 billion annual statistics budget is used to collect and analyze data on agriculture — how many acres of corn and soybeans are planted each year, how many pigs are being raised for slaughter. Yet farming accounts for less than 4% of the total economy. At the other extreme, services account for 75% of total employment and more than half of economic output. Yet less money is spent collecting information about the service sector than on the U.S. mining industry.

The government's budget cuts have forced statistical agencies to eliminate or ignore measuring key areas of the rapidly changing economy.

► **Trucks and sport utilities now account for 45% of U.S. vehicle sales.** But the government does not calculate the average expenditure for either as it puts together the component of the CPI that is published regularly and touted by automakers as an affordability guide for consumers.

► **The Federal Reserve used to track the difference between how much consumers charged on credit cards and how much they paid off each month.** Collection of the pay-off data was eliminated 15 years ago, leaving policymakers to guess if consumers are debt-burdened to the hilt, as record debt levels

indicate, or just taking advantage of frequent-flyer mileage plans offered by credit-card firms.

► **The government says productivity (output produced per hour) has grown at a 3.5% clip the past few years in manufacturing.** Yet the same measurement system shows almost zero productivity growth in many service industries. One example: Hollywood movie-making. *Jurassic Park* was a box-office blockbuster, but it produced less output per hour than the 1956 *King Kong*, according to the way the government computes productivity.

"You're talking about a film (*Jurassic Park*) that probably grossed \$40 million in a day, so we know it didn't have negative productivity growth," says Joseph Stiglitz, chair of the president's Council of Economic Advisers.

A critical time ...

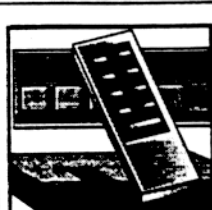
Uncle Sam's economic numbers have been mostly pleasing the past few years: low inflation and unemployment rates; respectable and sustainable growth. That makes it

hard to argue there's a crisis, especially when so many other pressing problems compete for attention and funding. But that could change. The economy has begun sending conflicting signals about whether the expansion will continue much longer. The notion that the government's figures can't be trusted worries policymakers now facing critical decisions.

"When the economy is expanding strongly or it's tanking, you don't have to be a rocket scientist to project what's going to happen the next few months," says Robert Reischauer, former head of the Congressional Budget Office. "But when you're reaching a turning point or underlying conditions are beginning to change, you're most uncertain and want the best data."

Greenspan has admitted that he studies government economic data closely and then makes an educated guess as to what the numbers are. Greenspan's analytical prowess is legendary. And his record of keeping inflation in check without hampering growth is widely acclaimed. But it's not perfect.

Most analysts agree the Fed mistakenly kept interest rates too high for too long at the end of the 1990-91 recession. Borrowers — from home buyers to business owners — paid up to 2 percentage points more than they should have during the 18



New product bias:

What happens:

When a new product is introduced, it's not added to the CPI right away. The videocassette recorder wasn't included in the CPI when it was introduced in 1976.

What the statistics measure: The VCR was not tracked until it was added to the CPI in 1987.

The result: The CPI didn't reflect steep price drops in the VCR's first decade.

SPECIAL REPORT: BAD DATA

The ABCs of GDP: How the government calculates gross domestic product

Gross domestic product is the sum of all reported economic activity - consumption, production and investment - minus imports (because they are not produced in the USA).

Consumption (67%) + Government (20%) + Investment (13%) + Exports (10%) - Imports (11%)



VCRs



NASA



Factories



Corn



Computer chips



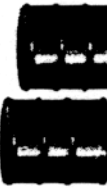
Furniture



Computers



Computers



Oil



Food



Houses



Scientific instruments



Cars

Note: Percentages do not equal 100% due to rounding.

Source: USA TODAY research

months following the recession. Higher-than-necessary rates slowed business growth, keeping a lid on hiring and pay raises. Similar mistakes now could jeopardize the longest expansion since the 92-month expansion of the 1980s. For instance, the Fed could raise short-term rates, causing companies and individuals to pull back on investments and spending. Experts agree: Unreliable data make such a scenario more likely.

Fixing the system

Sen. Patrick Moynihan, D-N.Y., and Sen. Robert Kerrey, D-Nebr., have proposed spending \$10 million on a three-year study of ways to improve the statistical system.

They say they're embarrassed that, in the world's most powerful and richest economy, the quality of the government's reports has consistently placed sixth place or lower in world rankings by *The Economist* magazine.

One reason is funding. Canada and Great Britain spend five times more per dollar of GDP than the U.S. spends to collect and analyze economic data. Most of the U.S. agencies that collect such data have budgets that are lower in inflation-adjusted dollars than they were four years ago.

"We're being penny-wise and pound-foolish by not making this a priority," Stiglitz says. But other budget priorities continue to make it a hard sell.

"I would go into one budget meeting and discuss cutting funding for the Bureau of Economic Analysis. But the very next meeting would be focused on cutting funding for school lunch programs," says Joseph Minarik, chief economist at President Clinton's Office of Budget and Management.

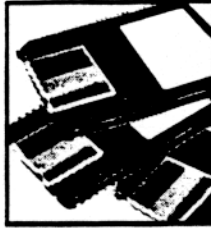
The issue could become a priority in the 105th Congress. Moynihan and Sen. William Roth, R-Del., are expected to use the CPI report out Wednesday as ammunition to reduce cost-of-living adjustments for Social Security and other benefits.

Regardless of who wins that squabble, the problems are likely to persist. The economy's warp-speed change is apt to continue confounding statisticians. Commerce's Ehrlich likens the task to that of a tailor trying to get suit measurements on a runner in a 100-yard dash.

"Information is the lubricant in a free-market economy," Ehrlich says. "Markets ... turn information into decisions, so the quality, consistency and credibility of information has to be of the highest order. And when it's not, everybody pays more ... for goods, for services or for assets."

GROSS DOMESTIC PRODUCT: Counting goods produced

What happens: Small and large businesses across the USA pay staff and outside consultants billions of dollars a year to create customized in-house computer software programs. For example, Federal Express packages press packages-track-aging system.



What the statistics measure: The government measures only packaged software that businesses and consumers buy. But for businesses, the government counts software purchases as a business expense rather than an investment.

Result: Economic growth is underestimated by billions of dollars.

Counting services

What happens: Two consumers get haircuts. One pays \$8 at a no-frills barber shop. The other pays \$80 and also gets a glass of wine and an intimate conversation with the stylist.



What the statistics measure: The total amount consumers paid for haircuts.

The result: The government is accurately measuring what consumers spend to purchase services but undercounting what services the consumers actually are getting.

By Suzy Parker, USA TODAY