INCENTIVES MATTER!

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Name ____

Incentives matter. When we are paid on commission, we work harder; if the price of gasoline goes up, we drive less; if my three-year-old daughter learns that she will get an Oreo if she cries while I'm talking on the phone, then she will cry while I am talking on the phone. This was one of Adam Smith's insights in *The Wealth of Nations*: "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard on their own interest." Bill Gates did not drop out of Harvard to join the Peace Corps; he dropped out to found Microsoft, which made him one of the richest men on the planet and launched the personal computer revolution in the process—making all of us better off, too. Self-interest makes the world go around, a point that seems so obvious as to be silly. Yet it is routinely ignored. The old slogan "From each according to his abilities, to each according to his needs" made a wonderful folk song; as an economic system, it has led to everything from inefficiency to mass starvation. In any system that does not rely on markets, personal incentives are usually divorced from productivity. Firms and workers are not rewarded for innovation and hard work, nor are they punished for sloth and inefficiency.

How bad can it get? Economists reckon that by the time the Berlin Wall crumbled, some East German car factories were actually destroying value. Because the manufacturing process was so inefficient and the end product was so shoddy, the plants were producing cars worth less than the inputs used to make them. Basically, they took perfectly good steel and ruined it! These kinds of inefficiencies can also exist in nominally capitalistic countries where large sectors of the economy are owned and operated by the state, such as India. By 1991, the Hindustan Fertilizer Corporation had been up and running for twelve years. Every day, twelve hundred employees reported to work with the avowed goal of producing fertilizer. There was just one small complication: The plant had never actually produced any salable fertilizer. None. Government bureaucrats ran the plant using public funds; the machinery that was installed never worked properly. Nevertheless, twelve hundred workers came to work every day and the government continued to pay their salaries. The entire enterprise was an industrial charade. It limped along because there was no mechanism to force it to shut down. When the government is bankrolling the business, there is no need to produce something and then sell it for more than it cost to make.

These examples seem funny in their own way, but they aren't. Right now, the North Korean economy is in such shambles that the country cannot feed itself, nor does it produce anything valuable enough to trade for sufficient food with the outside world. As a result, an ongoing famine has killed roughly two million people and left 60 percent of North Korean children malnourished. Journalists describe starving people eating grass and scouring railroad tracks for bits of coal or food that may have fallen from passing trains.

American policy makers routinely ignore the importance of incentives. The cause of California's chronic electricity shortage is simple enough: The demand for electricity is greater than the supply. Yet politicians initially refused to do the one thing that had to be part of any solution: allow the price of electricity to rise. Consumers were told to conserve electricity without having any financial incentive to do so. The sad reality is that the pocketbook is mightier than the conscience. It is one thing to feel a vague sense of guilt when you turn up the thermostat; it is another thing to know that doing so will cost you an extra $200 a month. (I have powerful childhood memories of my father, who has no great affection for the environment but could squeeze a nickel out of a stone, stalking around the house closing the closet doors and telling us that he was not paying to air-condition our closets.) Any long-term solution in California will have to allow the price of power to reflect its scarcity.

Meanwhile, American public education operates a lot more like North Korea than Silicon Valley. I will not wade into the school voucher debate, but I will discuss one striking phenomenon related to incentives in education that I have written about for *The Economist*. The pay of American teachers is not linked in any way to their performance; teachers' unions have consistently opposed any kind of merit pay. Instead, salaries in nearly every public school district in the country are determined by a rigid formula based on experience and years of schooling, factors that researchers have found to be generally unrelated to performance in the classroom. The uniform pay scale creates a set of incentives that economists refer to as adverse selection. Since the most talented teachers are also likely to be good at other professions, they have a strong incentive to leave education for jobs in which pay is more closely linked to productivity. For the least talented, the incentives are just the opposite.

The theory is interesting; the data are amazing. When test scores are used as a proxy for ability, the brightest individuals shun the teaching profession at every juncture. The brightest students are the least likely to choose education as a college major. Among students who do major in education, those with higher test scores are less likely to become teachers. And among individuals who enter teaching, those with the highest test scores are most likely to leave the profession early. None of this proves that America's teachers are being paid enough. Many of them are not, especially those gifted individuals who stay in the profession because they love it. But the general problem remains: Any system that pays all the teachers the same provides a strong incentive for the most talented among them to look for work elsewhere.

Human beings are complex creatures who are going to do whatever it takes to make themselves as well off as possible. Sometimes it is easy to predict how that will unfold; sometimes it is enormously complex. Economists often speak of "perverse incentives," which are the inadvertent incentives that can be created when we set out to do something completely different. In policy circles, this is sometimes called the "law of unintended consequences." Consider a well-intentioned proposal to require that all infants and small children be restrained in car seats while flying on commercial airlines. During the Clinton administration, FAA administrator Jane Garvey told a safety conference that her agency was committed to "ensuring that children are accorded the same level of safety in aircraft as are adults." James Hall, chairman of the National Transportation Safety Board at the time, lamented that luggage had to be stowed for takeoff while "the most precious cargo on the aircraft, infants and toddlers, were left unrestrained." Garvey and Hall cited several cases in which infants might have survived crashes had they been restrained. Thus, requiring car seats for children on planes would prevent injuries and save lives.

Or would it? Using a car seat requires that a family buy an extra seat on a plane, which dramatically increases the cost of flying. Airlines no longer offer significant children's discounts; a seat is a seat, and it is likely to cost at least several hundred dollars. As a result, some families will choose to drive rather than fly. Yet driving—even with a car seat—is dramatically more dangerous than flying. As a result, requiring car seats on planes might result in more injuries and deaths to children (and adults), not fewer.

Consider another example in which good intentions led to a bad outcome because the incentives were not fully anticipated. Mexico City is one of the most polluted cities in the world; the foul air trapped over the city by surrounding mountains and volcanoes has been described by the New York Times as "a grayish-yellow pudding of pollutants." Beginning around 1990, the government launched a program to fight this pollution, much of which is caused by auto and truck emissions. A new law required that all cars stay off the streets one day a week on a rotating basis (e.g., cars with certain license plate numbers could not be driven on Tuesday). The logic of the plan was straightforward: Fewer cars on the road would lead to less air pollution.

So what really happened? As would be expected, many people did not like the inconvenience of having their driving days limited. They reacted in a way that analysts might have predicted but did not. Families who could afford a second car bought one, or simply kept their old car when buying a new one, so that they would always have one car that could be driven on any given day. This proved to be worse for emissions than no policy at all, since the proportion of old cars on the road went up, and old cars are dirtier than new cars. The net effect of the policy change was to put *more* polluting cars on the road, not fewer. A 1995 study found that overall gas consumption had increased. The policy was later dropped in a favor of a mandatory emissions test.

Name ____

1.Reread the underlined sentence on the first page. Then comment on the extent to which you agree or disagree with the statement and why:

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2. Write a thoughtful paragraph on an incentive in the U.S. that you feel is not in the best interest of the overall economy or society. Suggest a way the government could improve the economic outcome.

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