

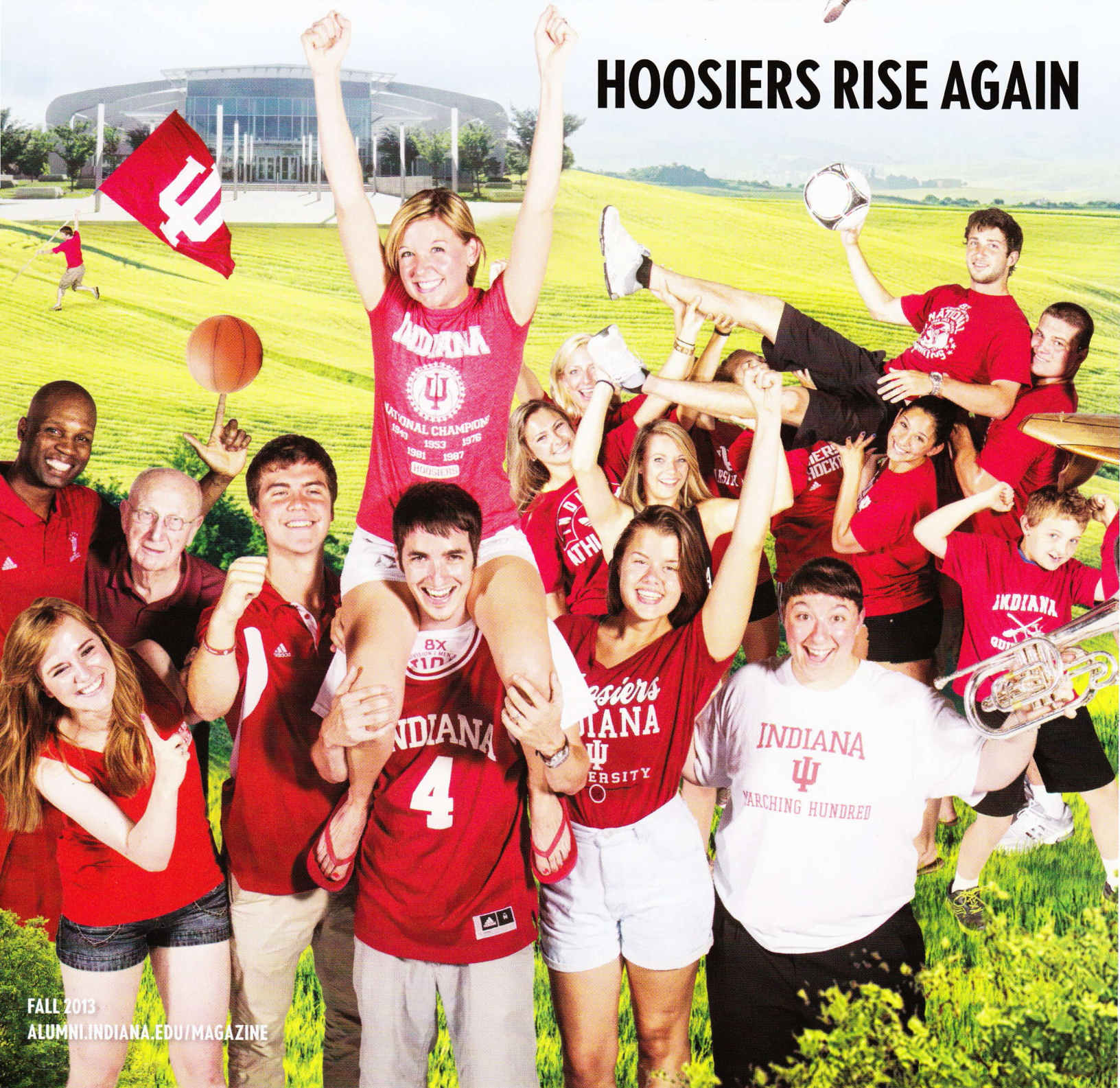


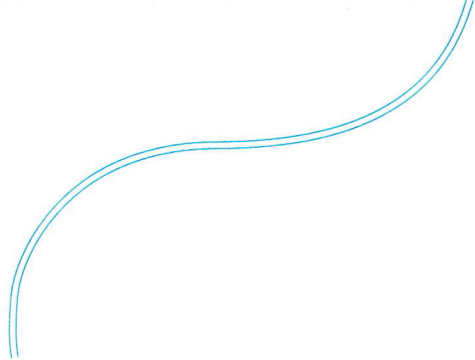
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UNIVERSITY ALUMNI MAGAZINE



HOOSIERS RISE AGAIN





PLOTTING A REVOLUTION

So, what if the way we've been grading performance is all wrong? Research by IU professor Herman Aguinis challenges the notion that the measure of human performance falls into a nicely shaped bell curve.

by **Daniel Comiskey**

If you're going to start a revolution, Argentina is as good a place as any to be born. Growing up there in the early 1970s, Herman Aguinis fell in love with the country—its mountains, hundreds of miles of beaches, and abundant natural resources. But at a young age, he became acutely aware that the Argentine government left a lot to be desired. A military junta ran things during that period, and political instability, lack of democracy, and perversion of justice were as common as the tango. As scores of the best and brightest fled for the United States and other destinations, Aguinis felt helpless. And when he finally joined them as a psychology graduate student in New York state in 1989, the experience prompted the question that would drive the rest of

his career: How can we foster environments where talent gets recognized and retained?

Today, after a long stint at the University of Colorado, Aguinis is a professor of organizational behavior and human performance at the Kelley School of Business at IU Bloomington, the John F. Mee chair of management, and director of the Institute for Global Organizational Effectiveness. In 2012, he published a landmark study in *Personnel Psychology* called “The Best and the Rest” that may go a long way to answering that question. For decades, the bell curve—a statistical distribution with a few excellent performers, a lot of average performers, and a few lousy ones—has dominated the fields of performance evaluation and grading. The concept dates back to the 1920s, when studies of

assembly line manufacturing found such a shape in documenting the output of workers. Universities took up the idea of “grading on the curve” in response to grade inflation caused by professors hoping to get better ratings from their students. And the controversial 1994 bestseller *The Bell Curve* popularized the notion, although the book was mostly about the distribution of intelligence, not performance.

In studying the contributions that people make to organizations, however, Aguinis started to notice a very different shape when he charted the data in his studies. The graphs had much fatter tails at either end, and a skinny middle. So he began to consider the historical origins of the assumption that we all fall into that kind of distribution, and the flaw seemed obvious.

STUDY OF CURVES

Professor Herman Aguinis's research shows more attention should be paid to the best and worst performers, not those in the middle of the pack.





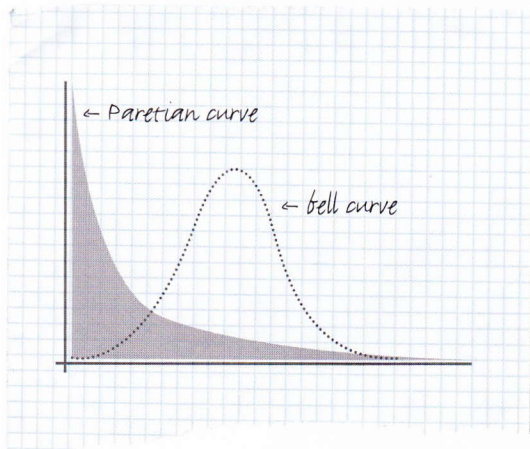
“Businesses are told they need to move their average up, but that’s not where the focus should be. Your outstanding performers produce 20 or 30 times the average in some cases. If they improve just a little bit, your whole organization moves ahead.”

“If you’re painting the same car door over and over—it doesn’t matter how smart you are or how motivated you are—you can’t paint more doors than the assembly line will allow,” he says. “Then I thought about the nature of work in the 21st century. In many businesses, there’s no upper limit to performance. My first reaction was that I needed more data. I knew this would be controversial, and that the burden of proof was on us.”

The study that led to “The Best and the Rest” took three years. That shape Aguinis saw when mapping out his data is called a Paretian curve, and as it literally does with the bell curve, it may well turn the fields of employee evaluation and education on their heads.

WAG THE TAIL

To make any kind of broad statement about performance, a researcher needs a broad spectrum of professions to study. One would be hard pressed to find a more diverse group than the 633,000 professors, entertainers, politicians, and athletes Aguinis chose for his investigation. Aguinis hypothesized that in all of the professions, individual performance would fall somewhere on a Paretian curve (named for the Italian economist Vilfredo Pareto), with the best of them producing many times more than the few in the middle. Although it’s less familiar than the bell curve, evidence



The bell curve is a statistical distribution with a few excellent performers, a lot of average performers, and a few lousy ones. Aguinis noticed a different shape when he charted the data in his studies: a Paretian curve, which moves the highest part of the curve from the middle to the beginning.

of Paretian curves can be found in many places. As “The Best and the Rest” notes, marketing researchers report that 80 percent of a brand’s purchases are made by 20 percent of its buyers. Sociologists say 80 percent of land is owned by 20 percent of the population.

Applying this curve to performance, though, remains a radical notion. Aguinis began his study by examining the professionals he knows best: research professors. He compiled the number of major journal publications by 490,000 profs across 54 academic disciplines over a nine-year period. A bell curve distribution would predict only 35 star researchers with more than 10 publications during that time. In fact, 460 of them had achieved that. It was an excellent start.

Needing further proof, he shifted his focus to entertainers, politicians, and athletes. In each case, he sought out the most objective measure of performance possible. Assessing entertainers, he asked himself: How many Oscar nominations did an actor have? How many *New York Times* bestsellers had an author written? Evaluating politicians was even more straightforward. Taking 42,700 candidates in 42 countries into account, he documented how many elections each had won. And in sports ranging from football to cricket, he recorded everything from rushing yards to goals scored. Hoping to address negative performance as well, he also made note of incidents such as unforced errors in baseball and yellow cards in soccer.

The consistency of the results surprised even Aguinis. In every profession, a fairly substantial number of star performers dominated, with most of “the rest” falling below the mean. He concluded that a lot more attention needs to be paid to the tails of the curve, and a lot less to the middle.

“Businesses are told they need to move their average up, but that’s not where the focus should be,” Aguinis says. “Your outstanding performers produce 20 or 30 times the average in some cases. If they improve just a little bit, your whole organization moves ahead. And if you can

minimize the damage caused by the worst performers — there are more than we thought — the same is true.”

Almost immediately, the popular press picked up on the findings. *NPR* and *The Chicago Tribune* ran stories. *USA Today Magazine* suggested that it “could force a wholesale re-evaluation of every facet related to recruitment, retention, and performance of individual workers.” And if Aguinis is right, the implications certainly extend even further.

BEND, BEND, BREAK

Human resource groups estimate that as much as a third of all companies today force a bell curve distribution when evaluating their employees, and they have one man to thank for it: Jack Welch.

The iconic CEO of General Electric in the 1980s and '90s formalized an idea that had been around for decades by rewarding the top 10 percent in his company, lumping most employees into the 80 percent in the middle, and firing the bottom 10 percent each year. Critics called it “Darwinian” and “brutal,” but Welch turned around an ailing GE on that philosophy. Other companies followed. Cisco Systems, Hewlett Packard, and Pepsi have all implemented a forced bell curve distribution at one time or another. Microsoft, however, may be the most famous case study.

It's easy to forget that the software company Bill Gates founded in 1975 was once a scrappy tech startup with little bureaucracy. By 2002, when Gates stepped down as CEO and entrenched executive Steve Ballmer took over, Microsoft was the largest corporation in the world. Ballmer instituted a new bell curve performance evaluation system that would lead to backstabbing, fear, and waves of departures.

In the scathing 2012 *Vanity Fair* article “Microsoft's Lost Decade,” employees described the scene.

“If you were on a team of 10 people,” one software engineer said, “you walked in the first day knowing that no matter how good everyone was, two people were going to get a great review, seven were going to get mediocre reviews, and one was going to get a terrible review.”

For that reason, author Kurt Eichenwald noted that “a lot of Microsoft superstars did everything they could to avoid working alongside other top-notch developers, out of fear that they would be hurt in the rankings.”

Microsoft's subsequent plunge in profits and innovation led to a lot of soul searching in the human resources industry. While the bell curve does solve the problem of managers handing out good reviews simply because

has developed a very good team, forcing him to rate some of them poorly punishes people who the organization wants to keep around.”

Aguinis's findings go a step further in challenging the bell curve — they indicate it doesn't exist in most modern industries at all. And the real curve, a Paretian distribution, doesn't call for people to be forced into one part of the graph. That's not to say that Aguinis's conclusion hasn't been controversial. The idea that certain performers, however many, dominate production and therefore should be richly rewarded strikes some as elitist. Even the title of his paper, “The Best and the Rest,” has Ayn Randian overtones.

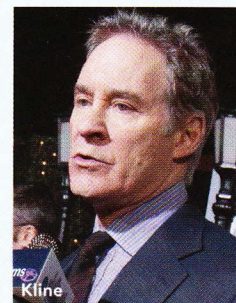
“I've certainly received some emails that called me things I don't like,” he



Smiley



Pauley



Kline

WHAT ARE THE IMPLICATIONS of focusing on top performers like IU alumni in the media and entertainment professions — Tavis Smiley, BS'03, LHD'04; Jane Pauley, BA'72, LHD'96; or Kevin Kline, BA'70?

IU professor Herman Aguinis suggests that the outstanding performers in any field produce much more than the average, therefore if they improve just a little, the entire organization moves ahead. Media reports said the findings “could force a wholesale re-evaluation of every facet related to recruitment, retention, and performance of individual workers.”

they don't want to criticize, it clearly creates a few of its own.

“Some sort of bell curve is still pretty common,” says Sean Conrad, a senior product analyst at Halogen Software, a company that helps corporations like Dole and Toshiba with performance reviews. “But it's not the best practice to force that distribution. If you have a very good manager who

says, “But I don't see this as, ‘We only need to look at these star performers.’”

Although several corporations have already contacted him about potentially implementing his findings, Aguinis says he isn't at liberty to name names. Companies interested in previewing how the Paretian curve rewards work in the real world need only look to Wall Street or professional



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GREG SIERING, director of Indiana University’s Center for Innovative Teaching and Learning

sports (one of the study’s subjects). For years, the best traders at Goldman Sachs have made 20 or 30 times as much money as colleagues sitting in nearby offices. And NBA MVP LeBron James’s \$19 million a year salary dwarfs the league minimum of \$500,000. If you want to keep the best, Aguinis’s research suggests, you have to pay them a lot more. That can get complicated when other employees start to resent the people at the top. And there exists an environment for which this finding may have even dicier implications—the classroom.

A’S, A’S, AND MORE A’S

No one can pinpoint exactly when grade inflation began in the ’60s or ’70s, but few universities have been immune to it. Some point to the Vietnam War as the origin, suggesting that professors were hesitant to fail students and make them eligible for the draft. Others believe that faculty members simply realized that higher evaluations from students were contingent on those students getting good grades. Whatever the case, the most common grade given at universities today is an A. At IU, the percentage is even a little higher than the national average.

The first school to address the problem in a public way was Princeton in 2004, and its answer was right in step with Microsoft’s at the time—force professors to distribute grades on a bell curve. By limiting A’s to 35 percent of grades (they had accounted for 46 percent), administrators thought they could put an end to the inflation. According to Greg Siering, director of IU’s Center for Innovative Teaching and Learning, the idea caught fire on a more informal, unspoken basis at schools across the country.

“For a while, people looked to the bell curve to describe everything,” he says. “It was based on an assumption that this was a naturally occurring phenomenon, and so that’s how we should score student success.”

At IU, departments and individual faculty members determine their own grading policies. As Siering says with a smirk, “Professors don’t like being told what to do.” So in large part, the practice of forcing a bell curve has now fallen out of vogue. Universities accept that grade inflation has occurred and seek to manage it by giving students other ways to differentiate themselves—grade context reports, for example, that record how many A’s were given in the classes a student took. But Aguinis believes the underlying assumption that student performance falls into a bell curve needs to be purged.

“If we’re doing our job in admissions, we should have a lot of excellent students,” he says. “You can’t expect that a certain percentage of the class will receive A’s. What if you have more?”

SEEING STARS

When you start the kind of revolution that Aguinis has, challenges are inevitable. Although he declines to name the researchers or institutions responsible, he says he has already seen papers at conferences disputing his new idea. He fully expects a few to be published in the next few years. Despite the skeptics, the IU professor’s follow-up article, currently in review, advances the theory. Aguinis aims to quantify exactly how big the difference between stars and non-stars is. He wants to measure the cost of star turnover (as opposed to the average rate

of turnover that most companies document). He attempts to identify the conditions that develop average performers into stars.

“If you’re in an organization that gives the same miniscule pay raise no matter what you do, why kill yourself?” Aguinis says. “In that situation, you’ll have people with the potential to be stars who won’t show it.”

Perhaps the most interesting question raised by his follow-up research, though, involves the effect that richly rewarding stars has on the rest of the group. After all, a star basketball player needs fairly competent teammates in order to succeed. A great trial lawyer needs solid research attorneys and paralegals to win cases. If the rank and file discover they’re reaping a fraction of the rewards, will the 80 percent not collaborate with the 20 percent? Aguinis frequently refers to “the vital few and the necessary many.”

Whatever details of this new theory emerge, the IU professor hopes that it will find its way into the hands of practitioners. On the curve of researchers from basic to applied, Aguinis is on the far right side of the distribution. Although he has spent his career at universities, his passion for change suggests that he hasn’t forgotten his early years in Argentina.

“My life agenda is to produce research that makes a difference in society and is actionable,” he says. “Personally, I’d like to leave this world a little better than I found it.” ■

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