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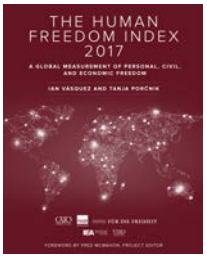

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Cato Policy Report

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How the Enlightenment Gave Us Peace, Prosperity, and Progress

BY STEVEN PINKER

The Enlightenment principle that we can apply reason and sympathy to enhance human flourishing may seem obvious, trite, old-fashioned. But it is not. More than ever, the ideals of reason, science, humanism, and progress need a wholehearted defense. We take its gifts for granted: newborns who will live more than eight decades, markets overflowing with food, clean water that appears with a flick of a finger and waste that disappears with another, pills that erase a painful infection, sons who are not sent off to war, daughters who can walk the streets in safety, critics of the powerful who are not jailed or shot, the world's knowledge and culture available in a shirt pocket. But these are human accomplishments, not cosmic birthrights. In the memories of many readers—and in the experience of those in less fortunate parts of the world—war, scarcity, disease, ignorance, and lethal menace are a natural part of existence. We know that countries can slide back into these primitive conditions, and so we ignore the achievements of the Enlightenment at our peril.

The ideals of the Enlightenment are products of human reason, but they always struggle with other strands of human nature: loyalty to tribe, deference to authority, magical thinking, the blaming of misfortune on evildoers. The second decade of the 21st century has seen the rise of political movements

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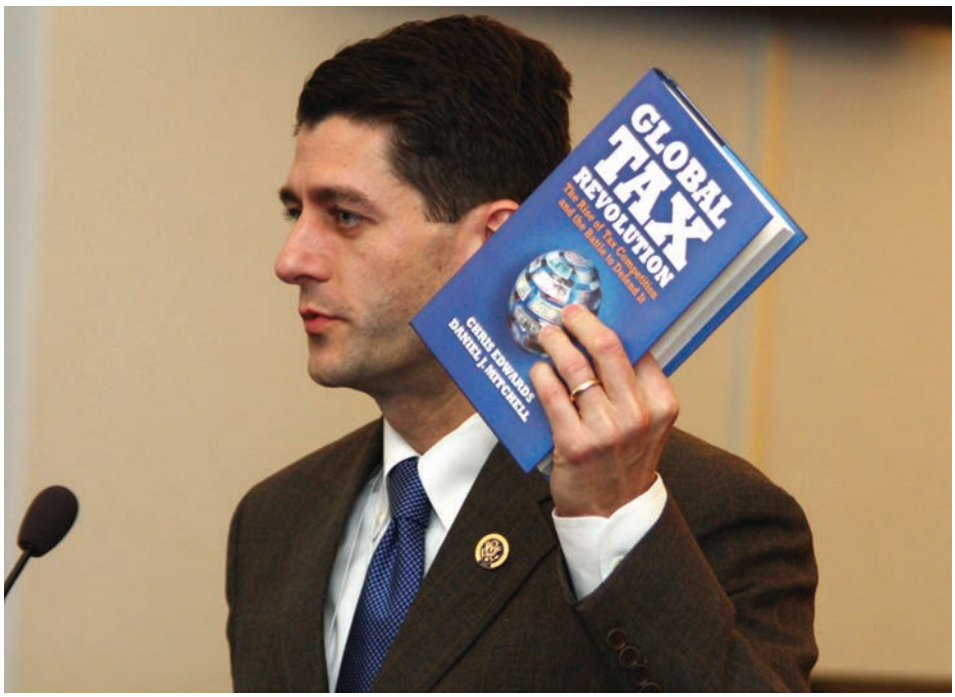
STEVEN PINKER is the Johnstone Family Professor of Psychology at Harvard University. Adapted from *Enlightenment Now: The Case for Reason, Science, Humanism, and Progress* by Steven Pinker, published by Viking, an imprint of Penguin Publishing Group, a division of Penguin Random House, LLC. Copyright © 2018 by Steven Pinker.



In 2008, PAUL RYAN, then ranking member of the House Budget Committee, praised Chris Edwards and Dan Mitchell's Cato book *Global Tax Revolution*, declaring that "if you haven't read this book, you should." Ten years later, Congress has adopted some of the book's key recommendations. See page 16.

BY ROBERT A. LEVY

CHAIRMAN'S MESSAGE

It's Not Just a Cake

> "Libertarians have energetically promoted the right to gay marriage, but they also contend that freedom of association and property rights authorize Phillips to serve whomever he pleases."

The Supreme Court will soon issue its opinion in *Masterpiece Cakeshop v. Colorado Civil Rights Commission*, determining if baker Jack Phillips must design a cake for the same-sex wedding of Charlie Craig and David Mullins.

Libertarians have energetically promoted the right to gay marriage, but they also contend that freedom of association and property rights authorize Phillips to serve whomever he pleases. Black florists shouldn't be required to sell wreaths for a Klan funeral. Jewish caterers needn't provide food at a Nazi picnic.

Phillips, however, has not argued freedom of association; and his case won't be resolved on that basis. Instead the Court will decide whether Colorado's public accommodations law, which bars discrimination against gays, violates the First Amendment's free exercise clause or its protection against compelled speech.

On the religion issue, in 1968 the Court denied a restaurant owner's claim that he didn't have to serve African Americans because it "would violate his sacred religious beliefs." But racial discrimination was pervasive in 1968. Today, more than 60 percent of Americans support same-sex marriage. And Phillips isn't refusing to serve gays, except in furtherance of their wedding.

In 1990, the Court also held that generally applicable laws can incidentally burden religion if they don't specifically target religion. Colorado's statute purportedly covers nearly all businesses serving the public, regardless of their owners' religious views. Still, the law hasn't been neutrally applied, and certain commissioners may have been motivated by anti-religious animus. Moreover, the 1990 case was about restricting religious practices; *Masterpiece* is about requiring practices contrary to religious beliefs.

Those facts might carry the day for Phillips. But if not, happily for him, clear Court precedents prevent coercing people to convey messages they reject. "If there is any fixed star in our constitutional constellation, it is that no official . . . can prescribe what shall be orthodox in . . . religion, or other matters of opinion, or force citizens to confess by word or act their faith therein." Applying similar reasoning, the Boy Scouts didn't have to allow a gay troop leader. And Massachusetts couldn't force parade organizers to include LGBT participants without "violat[ing] the fundamental First Amendment rule that a speaker [can] decide what not to say."

Phillips won't design a cake that supports same-sex marriage. He's happy to sell off-the-shelf products—like cupcakes, or other confections—to gay couples. And he'd gladly bake them a custom cake for another occasion. In fact, Phillips wouldn't design a same-sex wedding cake even for a heterosexual buyer. Nor would he make cakes for other events that violate his religious beliefs, such as Halloween or divorce parties. To Phillips, the message matters, not the identity of the customer.

Craig and Mullins, however, insist that cake-making doesn't convey a message; and judges shouldn't assess which acts qualify as expressive speech. Yet courts do that all the time. Indeed, courts have decided that expressive speech can include music, flag-burning, nude dancing, video games, tattooing, custom-painted clothes, stained-glass windows, films, paintings, engravings, and even sexually explicit materials.

Consider this hypothetical: Suppose Craig and Mullins insisted on a cake with the words "God Loves Gay Marriage." Should Phillips, who believes exactly the opposite, be forced to provide that cake? Most reasonable persons would conclude, "Of course not." But if words are expressive, so are pictures connoting words—such as a swastika or a Confederate flag.

Yes, there's a sensible solution that would have resolved this case (although imperfectly from a libertarian perspective): Colorado's legislature could have exempted custom-designed products from its public accommodation laws. Businesses would still be barred from discriminating against people on the basis of who they are, but owners wouldn't have to engage in expressive speech that violated their conscience.

The practical problems here were minimal. Sixty-seven bakeries in Denver advertised cakes for same-sex weddings; the closest was only one-tenth of a mile from Masterpiece. Craig and Mullins had no problem obtaining a suitable cake. Still, they plainly suffered dignitary harm. They were refused service merely because, as Justice Kennedy stated in *Obergefell v. Hodges*, they "aspire[d] to the transcendent purposes of marriage."

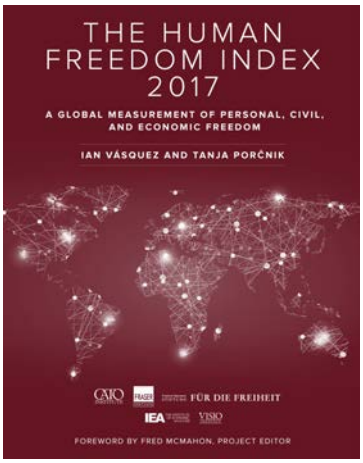
Three decades earlier, the Court considered a different kind of dignitary harm. The Court ruled that Jerry Falwell, who was caricatured by *Hustler* magazine as an incestuous drunkard, could not recover damages. Said a unanimous Court: Some dignitary harms must be tolerated to provide "adequate 'breathing space' to the freedoms protected by the First Amendment." Today's Court should reach the same conclusion.

Robert A Levy

New Human Freedom Index *released*

Is Global Freedom on the Decline?

Is the world getting more or less free? Which countries have the most robust freedom overall? How do economic freedom and personal freedoms interact? *The Human Freedom Index*, now in its third annual edition, is the most comprehensive freedom index ever created to answer these questions for 159 of the world's countries. The report is copublished by the Cato Institute, the Fraser Institute, and the Liberales Institut at the Friedrich Naumann Foundation for Freedom. It measures 79 distinct indicators of personal and economic freedom, including freedom of movement and religion, the rule of law, freedom of expression and information, freedom of identity and relationships, the size of government, freedom to trade, the legal system and property rights, and more.



The authors, Cato's Ian Vásquez and Tanja Porčnik of the Visio Institute, find that global freedom has declined slightly since last year's report. The top five jurisdictions for freedom were Switzerland, Hong Kong, New Zealand, Ireland, and Australia. The United States ranked only 17th. The five least free countries were Egypt, Yemen, Libya, Venezuela, and finally Syria, in 159th place. The areas that saw the largest global declines in freedom were the rule of law; freedom of movement; association, assembly, and civil society; and expression and information.

Out of 17 regions, the highest levels of freedom were found in Western Europe, Northern Europe, and North America (Canada and the United States). The lowest levels were in the Middle East and North Africa, Eastern Europe (Moldova, Russia, and Ukraine), South Asia, and sub-Saharan Africa. Many of the countries that slid in freedom are those experiencing a wave of authoritarian populism, such as Russia, Venezuela, Turkey, Hungary, and Argentina.

While global freedom did decline overall, about half the countries in the index had improved since last year's report. Some countries have shifted dramatically in rank over the past 10 years—while Russia, for example, moved from 99th place in 2008 to 126th in 2015, Taiwan moved in the opposite direction—from 49th place to 19th.

The index continues to find that freedom leads to increased prosperity—countries in the top quartile enjoyed a much higher average per capita income, at $38,871, than those in the bottom quartile, at $10,346. ■

READ THE FULL REPORT AT CATO.ORG.

Cato News Notes

BACCHUS JOINS TRADE CENTER

James Bacchus joined the Cato Institute's Herbert A. Stiefel Center for Trade Policy Studies in January as a senior fellow. He was a founding judge and was twice the chairman—the chief judge—of the highest court of world trade, the appellate body of the World Trade Organization in Geneva, Switzerland. He served for two terms as a member of Congress from Florida and is also a former international trade negotiator for the United States. For more than 14 years, he chaired the global practice of the largest law firm in the United States. He is the author of *Trade and Freedom* and *The Willing World: Shaping and Sharing a Sustainable Global Prosperity*, forthcoming from Cambridge University Press in 2018.

SPOTLIGHT ON SECURITY

In 2017 Cato's Julian Sanchez authored three of the most-read articles on *Just Security*, an online forum that analyzes U.S. national security law and policy, based out of the New York University School of Law.

CATO'S CONSTITUTION DAY TRAVELS TO ROME

In late October, members of Italy's Pietro Nenni Foundation met at Cato with Roger Pilon and Ilya Shapiro. They were familiar with Cato's 16 annual Constitution Day symposiums. With the 70th anniversary of Italy's Constitution coming up on December 22, they were seeking advice on doing something like that in Rome. Shortly thereafter, the foundation's Prof. Luigi Trioni drafted the program for Italy's first Constitution Day symposium and invited Pilon to give an hour-long keynote address on American constitutionalism. Under the "high patronage" of President Sergio Mattarella, the event took place on December 22. Pilon's address, "American Constitutional Theory and History: Implications for European Constitutionalism," was translated into Italian before the event. It will appear in both languages when the proceedings are published as a book later this year. While in Rome, Pilon did interviews with La Voce di New York and the Italian magazine *Formiche*. He also had lengthy discussions on constitutional matters with Justice Giulio Prosperetti, a member of Italy's Constitutional Court, and Counselor Giancarlo Montedoro, legal advisor to President Mattarella.

At a Cato Policy Forum, EMILY YOFFE of *The Atlantic* (left) and RUTH MARCUS of the *Washington Post* discussed the complex problem of campus sexual assault, and how it has been worsened by Obama-era guidelines that asked schools to use the lowest standard of proof in adjudicating cases.

At a Capitol Hill Briefing, SEN. JAMES LANKFORD (R-OK) discussed ways to identify and eliminate redundant government programs.

A year into President Trump's term, can we define the Trump Doctrine when it comes to foreign policy? At a Cato conference in January (left to right), HAL BRANDS of Johns Hopkins University, KATHLEEN HICKS of the Center for Strategic and International Studies, JAMES GOLDGEIER of the Council on Foreign Relations, SUSAN GLASSER of *Politico*, and Cato's TREVOR THRALL discussed this question.

The Cato Institute is dedicated to educating the next generation in the principles of liberty—last year alone, over 7,000 young people participated in Cato programs. On the left, Cato's ILYA SHAPIRO spoke to law students at Brigham Young University, and on the right, Cato's THAYA BROOK KNIGHT led a seminar on financial regulation at Cato's Winter Liberty Seminar for students.

At a Cato Book Forum, BRYAN CAPLAN discussed his new book, *The Case against Education: Why the Education System Is a Waste of Time and Money*.

In December, Environmental Protection Agency Administrator SCOTT PRUITT visited the Cato Institute for a luncheon to discuss policy with Cato scholars.

Continued from page 1

that depict their countries as being pulled into a hellish dystopia by malign factions that can be resisted only by a strong leader who wrenches the country backward to make it "great again." These movements have been abetted by a narrative shared by many of their fiercest opponents, in which the institutions of modernity have failed and every aspect of life is in deepening crisis—the two sides in macabre agreement that wrecking those institutions will make the world a better place. Harder to find is a positive vision that sees the world's problems against a background of progress that it seeks to build upon by solving those problems in their turn.

Reflecting on liberal ideals in 1960, not long after they had withstood their greatest trial, the economist F. A. Hayek observed, "If old truths are to retain their hold on men's minds, they must be restated in the language and concepts of successive generations" (inadvertently proving his point with the expression *men's minds*). "What at one time are their most effective expressions gradually become so worn with use that they cease to carry a definite meaning. The underlying ideas may be as valid as ever, but the words, even when they refer to problems that are still with us, no longer convey the same conviction."

DARE TO UNDERSTAND

The Enlightenment has *worked*—perhaps the greatest story seldom told. And because this triumph is so unsung, the underlying ideals of reason, science, and humanism are unappreciated as well. Far from being an insipid consensus, these ideals are treated by today's intellectuals with indifference, skepticism, and sometimes contempt. When properly appreciated, I will suggest, the ideals of the Enlightenment are in fact stirring, inspiring, and noble.

What is enlightenment? In a 1784 essay with that question as its title, Immanuel Kant answered that it consists of "humankind's emergence from its self-incurred immaturity," its "lazy and cowardly" submission to the "dogmas and formulas" of religious or political authority. Enlightenment's motto, he proclaimed, is "Dare to understand!" and its foundational demand is freedom of thought and speech.

"The Enlightenment has *worked*—perhaps the greatest story seldom told. And because this triumph is so unsung, the underlying ideals are unappreciated as well."

What is *the* Enlightenment? There is no official answer, because the era named by Kant's essay was never demarcated by opening and closing ceremonies like the Olympics, nor are its tenets stipulated in an oath or creed. The Enlightenment is conventionally placed in the last two-thirds of the 18th century, though it flowed out of the Scientific Revolution and the Age of Reason in the 17th century and spilled into the heyday of classical liberalism of the first half of the 19th. The era was a cornucopia of ideas, some of them contradictory, but four themes tie them together: reason, science, humanism, and progress.

Foremost is reason. Reason is nonnegotiable. As soon as you show up to discuss the question of what we should live for (or any other question), as long as you insist that your answers, whatever they are, are reasonable or justified or true and that therefore other people ought to believe them too, then you have committed yourself to reason, and to holding your beliefs accountable to objective standards.

Many writers today confuse the Enlightenment endorsement of reason with the implausible claim that humans are perfectly rational agents. Nothing could be further from historical reality. Thinkers such as Kant, Baruch Spinoza, Thomas Hobbes, David Hume, and Adam Smith were inquisitive psychologists and all too aware of our irrational passions and foibles. The deliberate application of reason was necessary precisely because our common habits of thought are not particularly reasonable.

That leads to the second ideal, science, the refining of reason to understand the world. The Scientific Revolution was revolutionary in a way that is hard to appreciate today, now that its discoveries have become second nature to most of us.

To the Enlightenment thinkers, the escape from ignorance and superstition showed how mistaken our conventional wisdom could be, and how the methods of science—skepticism, fallibilism, open debate, and empirical testing—are a paradigm of how to achieve reliable knowledge.

That knowledge includes an understanding of ourselves. The need for a "science of man" was a theme that tied together Enlightenment thinkers who disagreed about much else. Their belief that there was such a thing as universal human nature, and that it could be studied scientifically, made them precocious practitioners of sciences that would be named only centuries later.

The idea of a universal human nature brings us to a third theme, humanism. The thinkers of the Age of Reason and the Enlightenment saw an urgent need for a secular foundation for morality, because they were haunted by a historical memory of centuries of religious carnage: the Crusades, the Inquisition, witch hunts, the European wars of religion. They laid that foundation in what we now call humanism, which privileges the well-being of individual men, women, and children over the glory of the tribe, race, nation, or religion. It is individuals, not groups, who are *sentient*—who feel pleasure and pain, fulfillment and anguish.

A humanistic sensibility impelled the Enlightenment thinkers to condemn not just religious violence but also the secular

cruelties of their age, including slavery, despotism, executions for frivolous offenses such as shoplifting and poaching, and sadistic punishments such as flogging, amputation, impalement, disembowelment, breaking on the wheel, and burning at the stake.

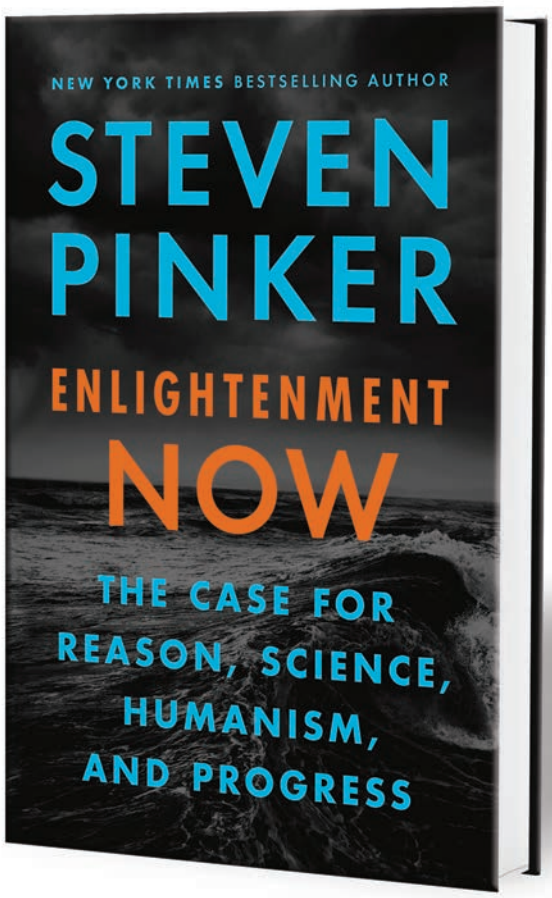
If the abolition of slavery and cruel punishment is not progress, nothing is, which brings us to the fourth Enlightenment ideal. With our understanding of the world advanced by science and our circle of sympathy expanded through reason and cosmopolitanism, humanity could make intellectual and moral progress.

The ideal of progress should not be confused with the 20th-century movement to re-engineer society for the convenience of technocrats and planners, which the political scientist James Scott calls Authoritarian High Modernism. Rather than trying to shape human nature, the Enlightenment hope for progress was concentrated on human institutions. Human-made systems such as governments, laws, schools, markets, and international bodies are a natural target for the application of reason to human betterment.

In this way of thinking, government is not a divine fiat to reign, a synonym for "society," or an avatar of the national, religious, or racial soul. It is a human invention, tacitly agreed to in a social contract, designed to enhance the welfare of citizens by coordinating their behavior and discouraging selfish acts that may be tempting to every individual but leave everyone worse off. As the most famous product of the Enlightenment, the Declaration of Independence, put it, in order to secure the right to life, liberty, and the pursuit of happiness, governments are instituted among people, deriving their just powers from the consent of the governed.

PEACE AND PROSPERITY

The Enlightenment also saw the first rational analysis of prosperity. Its starting point was not how wealth is distributed but the prior question of how wealth comes to exist in the first place. Smith, building on French, Dutch, and Scottish influences, noted that an abundance of useful stuff cannot be conjured into existence by a farmer or craftsman working in isolation. It depends on a network of specialists, each of whom learns how to make something as efficiently as possible, and who combine and exchange the fruits of their ingenuity, skill, and labor.



Specialization works only in a market that allows the specialists to exchange their goods and services, and Smith explained that economic activity was a form of mutually beneficial cooperation (a positive-sum game, in today's lingo): each gets back something that is more valuable to him than what he gives up. Through voluntary exchange, people benefit others by benefiting themselves; as he wrote, "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love." Smith was not saying that people are ruthlessly selfish, or that they ought to be; he was one of history's keenest commentators on human sympathy. He only said that in a market, whatever tendency people have to care for their families and themselves can work to the good of all.

Exchange can make an entire society not just richer but nicer, because in an effective market it is cheaper to buy things than to steal them, and other people are more valuable to you alive than dead. (As the economist Ludwig von Mises put it centuries later, "If the tailor goes to war against the baker, he must henceforth bake his own bread.") Many Enlightenment thinkers, including Montesquieu, Kant, Voltaire, Diderot, and the Abbé de Saint-Pierre, endorsed the ideal of *doux commerce*, gentle commerce. The American Founders—George Washington, James Madison, and especially Alexander Hamilton—designed the institutions of the young nation to nurture it.

This brings us to another Enlightenment ideal, peace. War was so common in history that it was natural to see it as a permanent part of the human condition and to think peace could come only in a messianic age. But with the advent of the Enlightenment, war was no longer thought of as a divine punishment to be endured and deplored, or a glorious contest to be won and celebrated, but as a practical problem to be mitigated and someday solved. In "Perpetual Peace," Kant laid out measures that would discourage leaders from dragging their countries into war. Together with international commerce, he recommended representative republics (what we would call democracies), mutual transparency, norms against conquest and internal interference, freedom of travel and immigration, and a federation of states that

would adjudicate disputes between them.

For all the prescience of the Founders, Framers, and *philosophes*, this is not a book of Enlightenolatry. The Enlightenment thinkers were men and women of their age, the 18th century. Some were racists, sexists, anti-Semites, slaveholders, or duelists. They of all people would have been the first to concede this. If you extol reason, then what matters is the integrity of the thoughts, not the personalities of the thinkers. And if you're committed to progress, you can't very well claim to have it all figured out.

PROGRESSOPHOBIA

Intellectuals hate progress. Intellectuals who call themselves "progressive" *really* hate progress. It's not that they hate the *fruits* of progress, mind you: most pundits, critics, and their *bien pensant* readers use computers rather than quills and inkwells, and they prefer to have their surgery with anesthesia rather than without it. It's the *idea* of progress that rankles the chattering class—the Enlightenment belief that by understanding the world we can improve the human condition.

The idea that the world is better than it was and can get better still fell out of fashion among the clerisy long ago. In *The Idea of Decline in Western History*, Arthur Herman shows that prophets of doom are the all-stars of the liberal arts curriculum, including Nietzsche, Arthur Schopenhauer, Martin Heidegger, and a chorus of eco-pessimists. In *History of the Idea of Progress* (1980), the sociologist Robert Nisbet agreed: "The skepticism regarding Western progress that was once confined to a very small number of intellectuals in the nineteenth century has grown and spread to not merely the large majority of intellectuals in this final quarter of the century, but to many millions of other people in the West."

But it's not just those who intellectualize for a living who think the world is going to hell in a handcart. It's ordinary people when they switch into intellectualizing mode. In late 2015, large majorities in 11 developed countries said that "the world is getting worse," and in most of the last 40 years a solid majority of Americans have said that the country is "heading in the wrong direction."

"Intellectuals hate progress. Intellectuals who call themselves 'progressive' *really* hate progress."

It's easy to see why people feel that way: every day the news is filled with stories about war, terrorism, crime, pollution, inequality, drug abuse, and oppression. Seeing how journalistic habits and cognitive biases bring out the worst in each other, how can we soundly appraise the state of the world? The answer is to *count*.

Most people agree that life is better than death. Health is better than sickness. Sustenance is better than hunger. Abundance is better than poverty. Peace is better than war. Safety is better than danger. Freedom is better than tyranny. Equal rights are better than bigotry and discrimination. Literacy is better than illiteracy. Knowledge is better than ignorance. Intelligence is better than dull-wittedness. Happiness is better than misery. Opportunities to enjoy family, friends, culture, and nature are better than drudgery and monotony.

All these things can be measured. If they have increased over time, that is progress.

Granted, not everyone would agree on the exact list. The values are avowedly humanistic and leave out religious, romantic, and aristocratic virtues such as salvation, grace, sacredness, heroism, honor, glory, and authenticity. But most would agree that it's a necessary start.

THE SHOCKING TRUTH

And here is a shocker: *The world has made spectacular progress in every single measure of human well-being.* Here is a second shocker: *Almost no one knows about it.*

Information about human progress, though absent from major news outlets and intellectual forums, is easy enough to find. The data are not entombed in dry reports but are displayed in gorgeous websites, particularly Max Roser's *Our World in Data*, Marian Tupy's *HumanProgress*, and Hans Rosling's *Gapminder*. (Rosling learned that not even swallowing a sword during a 2007 TED talk was enough to get the world's attention.) The case has been made in beautifully written books, some by Nobel laureates, which flaunt the news in their titles—*Progress, The Progress Paradox, Infinite Progress, The Infinite Resource, The Rational Optimist, The Case for Rational Optimism, Utopia for Realists, Mass Flourishing, Abundance, The Improving State of the World, Getting Better, The End of Doom, The Moral Arc, The Big Ratchet, The Great Escape, The Great Surge, The Great Convergence*. (None was recognized with a major prize, but over the period in which they appeared, Pulitzers in nonfiction were given to four books on genocide, three on terrorism, two on cancer, two on racism, and one on extinction.) And for those whose reading habits tend toward listicles, recent years have offered "Five Amazing Pieces of Good News Nobody Is Reporting," "Five Reasons Why 2013 Was the Best Year in Human History," "Seven Reasons the World Looks Worse Than It Really Is," "29 Charts and Maps That Show the World Is Getting Much, Much Better," "40 Ways the World Is Getting Better," and my favorite, "50 Reasons We're Living through the Greatest Period in World History."

Perhaps President Obama summed it up best at the end of his presidency:

> If you had to choose a moment in history to be born, and you did not know ahead of time who you would be—you didn't know whether you were going to be born into a wealthy family or a poor family, what country you'd be born in, whether you were going to be a man or a woman—if you had to choose blindly what moment you'd want to be born, you'd choose now. ■

Surveilling in Secret

Government surveillance is much more advanced than most people realize—thanks in part to the government's studious efforts to keep these programs secret. At Cato's 2017 Surveillance Conference, SARAH ST.VINCENT of Human Rights Watch explained how the government conceals many of these programs through parallel construction, while CLARE GARVIE of Georgetown Law's Center on Privacy and Technology discussed the findings of the center's alarming new report on face recognition technology, "Perpetual Lineup."

SARAH ST.VINCENT: Parallel construction is one of the most frightening civil liberties issues that you may never have heard of. For the purposes of this discussion, I'm defining parallel construction as something that a government body does deliberately to create an alternative explanation for how it found a piece of evidence. The government did Thing A, but it doesn't want the court, or the defense attorney, for example, to know that it did Thing A, so it goes back and does Thing B.

So how might this work? *The Intercept* recently had an article about immigration enforcement in Texas, and how state troopers are starting to find people through traffic stops. And I thought, my gosh, when somebody gets pulled over for having windows that are tinted too dark, and then lo and behold! They have an immigration issue! That is kind of too happy for law enforcement to be a coincidence.

So, hypothetically, say the government has some very large database of phone records—as we know they have had, thanks to the Snowden revelations—and suppose they use those phone records to look at someone who they know is undocumented. They could then ask: "Who was that person in touch with? Who else might be undocumented?" Because they know that this might raise constitutional issues, they might ask a local officer to pull over the car that belongs to a person that interests them. And they don't always tell the officer what they're looking for. So, the officer follows the car, waits for it to drift over a line, or to not signal 20 feet before a turn. They pull the person over and then say, "Hey, now that I checked your license, can I ask you a couple of questions? Where do you live? How long have you lived there? What's your nationality?" And then as far as you would know, as the defendant, that's how your case started—with the traffic stop. You wouldn't find out about this huge underlying program that might potentially render the rest of the case "fruit of the poisonous tree"—in other words, something that shouldn't be used in court because it was illegally obtained.

Similarly, suppose the government secretly applies a new facial recognition technology to a video from a store security camera to identify a robbery suspect. It identifies a suspect, and then it sends a human informant to their house, or to a street corner, to strike up a conversation and start asking questions. And then suppose according to the records that get filed in court, that case started with a human informant. You don't find out that the government may have actually used this facial recognition technology that may be biased, that may be inaccurate, or that may draw on sets of data that are otherwise illegal or problematic. You don't know, because the government has engaged in parallel construction. It recreated the evidentiary trail.

So, what's the problem? First, this shields government conduct from constitutional scrutiny—you'll never have a chance to have a court rule on whether that phone records program was constitutional, or whether that facial recognition technology is constitutional.

Second, in U.S. court cases, if evidence was obtained illegally, courts will normally not allow the prosecution to introduce it into evidence. This is called the exclusionary rule. And the point of it is to deter law enforcement misconduct. If you remove this incentive for officials to obey the law, it could lead to coercion, perjury, and other problems. Think about the traffic stop scenario, where you have an officer who has been told to find a reason to pull this car over and then find a way to make an arrest or search the car. If you're the officer, you may feel pressured to do those things even where the Constitution and court rulings would suggest that you're crossing a line. You might illegally prolong a stop. You might illegally coerce someone to consent to the search. Officers might feel pressured to falsify reports or lie about what they did.

It also creates Brady problems. *Brady v. Maryland* is a Supreme Court case that says the government must turn over any evidence it has that may be favorable to the defense. But if you as the defense don't know about this big collection of data, you may not be able to get at your Brady information, because again, you don't know that information even exists.

What does the government seek to conceal through parallel construction? Well, potentially anything—and I mean, really, anything. It could be a wiretap with a warrant. It could be a human source, or it could be a gigantic NSA or DEA program.

There was a 2015 case in the Southern District of Ohio that I don't think got enough attention—a case of someone who supposedly had attempted an attack motivated by support for ISIS. And the FBI said, well, we found their Twitter feed. Of all the Twitter feeds in the world, you found that one? House Speaker John Boehner came out and trumpeted that FISA was involved, and said this is

why it was so important to renew FISA Section 702, a major intelligence surveillance law. But that was not anywhere in the indictment, or any of the court records we've seen, and the prosecution claimed that this came from publicly available information.

If parallel construction is legal, does the Bill of Rights still have any meaning? If the government can do things that are constitutionally questionable, or that it should know are unlawful, and then simply never tell anyone, do those rights still have any meaning? I think this is very, very frightening.

CLARE GARVIE: I want you to imagine for a second that you're home at night. It's 8:00 p.m., and the police knock on your door and say there's been a robbery in the neighborhood. They say, "Don't worry, we think we have the person who did it in custody. However, we want you to come down to the station and stand in a lineup."

I think a lot of us would say no. You might be thinking, I must look a lot like this guy. What if the witness points to me instead of the real suspect?

Well, the reality is, thanks to facial recognition, at least 53 percent of all American adults are now in what we call a "perpetual lineup." This is not because they have had prior interaction with law enforcement, but because they have a driver's license. The use of face recognition technology by law enforcement is far more pervasive and far more advanced than most people realize.

As a preliminary, I want to briefly go through how face recognition is used by police today. The first use is what we call "stop and identify." A handful of agencies across the country have face recognition applications on their phones, meaning that officers in the field, after they've stopped somebody, can actually look up that person's identity with a face recognition application simply by taking their picture. This process takes about three seconds. Second, there's "arrest and identify"—upon arrest in most jurisdictions that have a face recognition system, the person arrested, regardless of whether they're charged or later convicted, will have their mugshot taken, and that photo will be searched against the existing database and enrolled into a face recognition database for future searches. The third is "investigate and identify." Let's say officers have a surveillance video of a bank robbery taking place, or a cell phone video of a theft. They can take that photo, and if there's a good enough face in any of those stills, they can run that through a face recognition system and search for that individual against whatever database they have.

SARAH ST.VINCENT

> "If parallel construction is legal, does the Bill of Rights still have any meaning?"

The fourth and most concerning application of face recognition that we're seeing is real-time biometric surveillance. Increasingly, law enforcement agencies are expressing interest in using face recognition at the back-end of CCTV systems in real time to monitor who's walking by those cameras.

The other component of face recognition that we need to talk about briefly is who's in the database. The first and most common are mugshot databases, but as I said before, this is not necessarily limited to individuals convicted of a crime. Increasingly, however, driver's license photo databases are optimized for face recognition searchability, and now they are open to search by law enforcement agencies.

The final form of databases is watch lists or hot lists—these are lists of individuals that a real-time system would be looking for right now. Because of technological limitations, these are relatively small lists. But the narrowness and the targeted nature of these types of watch lists are going to disappear and the databases for real-time systems will look like the databases for investigative searches.

Our first finding is that law enforcement face recognition technology is far more advanced and widespread than most people realize. A Government Accountability Office report early last year indicated that the FBI has access to search 16 states' driver's license photos for FBI criminal investigations, representing 64 million people across the country. Our report includes state and local law enforcement's access to driver's license photos, and that number jumps up to 26 states, 117 million people as of the launch of our report. We're continuing to investigate, and this number just continues to grow. We're now at 30 states and 119 million people, which is 53 percent of all American adults.

We found that six, probably seven major jurisdictions across the country have either looked into or actually purchased the ability to do real-time face recognition surveillance: Seattle, Los Angeles, Dallas, Chicago, New York, West Virginia, and probably Detroit. Every major company that sells face recognition systems to law enforcement in the United States advertises—and heavily markets—the ability to do so.

Our second finding is that law enforcement face recognition will have a disparate impact on African Americans. This is because of three factors. The first is illustrated by a

study in San Diego, which found that people of color were between 1.5 and 2.5 times more likely to be targeted than expected by their presence in the population by advanced technology, specifically license plate readers and face recognition. The second is that most face recognition systems run on mugshots, and if we look at arrests-to-population ratios, African Americans are arrested at far greater rates than their proportion of the population would suggest. So African Americans are overrepresented in the searches, the probe photos, and in the databases themselves.

The third prong is the search itself. Taking a step back, face recognition is not very accurate. A few years ago, the FBI ran a test on the searches that they conduct and found that they were about 86 percent accurate, meaning that in six out of seven of the searches they ran the suspect, who was indeed in the database, would show up in a list of 2 to 50 possible candidates. One out of seven searches would result in a list of completely innocent candidates, even though the suspect was in their database. But compounding this, the errors are not distributed evenly. A 2012 study coauthored by an FBI face recognition expert found that face recognition algorithms are 5 to 10 percent less accurate on African Americans, women, and young people. More recent studies continue to demonstrate that these algorithms perform differently depending on your demographics, particularly race and gender.

Our third finding is that face recognition, however pervasive or advanced it is, is not under control. We found that there are no comprehensive state or federal laws that govern the use of this technology by law enforcement. We then took a look at how the agencies themselves are choosing to regulate this and found that a very limited number of agencies had policies to begin with. Very few of those existing policies required individualized suspicion, limited the searches to certain crimes, required suspicion to begin with, or prohibited searches on First Amendment–protected activities. Many agencies told us after our Freedom of Information Act request that they didn't have any rules governing how the technology is used—some policies went even further than that, to say that law enforcement is encouraged to use this technology "whenever practical." That line is from the Pinellas County, Florida, sheriff's office policy. We talked to Sheriff Bob Gualtieri there, in charge of operating the longest-running system in the country. The system has been used for about 16 years and has never been audited, despite the fact that about 8,000 searches are run on it every year.

CLARE GARVIE

> "There are no comprehensive state or federal laws that govern the use of this technology by law enforcement."

This leads to one last question: Is there any judicial control here? We went across the street and spoke to Bob Dillinger, the public defender for Pinellas County, and he said never in his entire time running the public defender's office—and he's been around for the entire duration of the face recognition program—has any case had face recognition disclosed as Brady evidence. This is something one would expect, because face recognition gives a list of possible candidates. Any candidate who is listed by the algorithm who was not the person charged would potentially be exculpatory evidence that must be turned over to the defense.

This technology may also be leading to chilling free speech. After the death of Freddie Gray in police custody, the Baltimore County Police Department reportedly used Geofeedia in conjunction with face recognition to take photographs at public protests, run them through face recognition, and identify people at protest sites while the demonstrations were going on. Law enforcement agencies themselves have said in a 2011 report that this runs the risk of chilling free speech, and yet that hasn't stopped them from using it with no limits.

There is reason for optimism. The House oversight committee did hold a hearing after the launch of our report on the use of face recognition technology in which they put the FBI in the hot seat over its lack of transparency and oversight. We've seen action in Vermont, Maryland, and New York, including an introduction of a comprehensive bill in Maryland.

But so that we don't end on too optimistic of a note, I want to make two quick points about where this technology is going. Real-time face recognition used in conjunction with body cameras is coming—it's already in use in the UK. The company who deploys it in the UK has a contract here to use it with dash cams. Think about this—real-time face recognition where the final arbiter of the algorithmic match is not somebody sitting behind a desk who has the time and training to evaluate whether the algorithm is right or not. It's an officer in the field with a weapon, who has a moment's decision to make on whether he's faced with a threat to public safety and to draw his gun. What if the algorithm is wrong?

China is very aggressively deploying face

Continued on page 12

How the government is watching you—and what you can do about it

The Age of Surveillance

Most people believe that they have some fundamental right to privacy—but how can anyone achieve privacy in an age when people are constantly surveilled by ever-more-sophisticated technology, on phones, GPS devices, surveillance cameras, and more? At the 2017 Cato Surveillance Conference, experts, policymakers, technologists, and civil society advocates gathered to discuss the state of surveillance and what can be done to stop the erosion of Americans' privacy. Rep. Ted Lieu (D-CA) delivered the opening remarks, recalling that his Taiwanese parents came to America precisely because America was a country where citizens had no need to fear their own government. Lieu warned that mass surveillance programs, such as those authorized by the Foreign Intelligence Surveillance Act's controversial Section 702, which allows the government to intercept Americans' communications, are endangering the American dream his parents came here in search of. A series of flash talks throughout the afternoon went in-depth into surveillance techniques and how the government shields them from the public eye—through the practice of parallel construction, for example, which Sarah St.Vincent of Human Rights Watch dubbed "one of the most frightening civil liberties issues that you may never have heard of." (See page 9). Justin Hansford of Howard University delivered the lunch keynote address, in which he reviewed the FBI's long history of surveilling civil rights activists under the guise of targeting "extremists." A final panel discussed what self-defense strategies citizens can employ to shield themselves from surveillance. For example, Steve Bell previewed his venture Orchid Labs, which aims to build a totally decentralized, anonymous, and surveillance-free layer of the internet by allowing users to sell their bandwidth—this way, users in countries where internet use is heavily regulated and surveilled, such as China, can purchase bandwidth from freer countries in the West, increasing global freedom and thwarting government surveillance. ■

Top: Professors Andrew Ferguson and Margaret Hu, reporter Justin Jouvenal, and John Grant of Palantir Technologies; bottom: Rep. Ted Lieu (D-CA) and Justin Hansford of Howard University.

WATCH ALL PRESENTATIONS FROM THE CONFERENCE AT CATO.ORG

Continued from page 11

recognition technology on very minor crimes. They use it not only to shame jaywalkers, but also to report that crime to the police when it occurs. The Russian government is very actively using face recognition to crack down on anti-corruption and anti-government protesters. They publish protesters' names online and subject them to harassment if not arrest and incarceration. And then a final note on real-time surveillance: China has 200 million cameras. They're planning to implement 400 million more in the coming years. They have real-time face recognition in a lot of these cameras. The BBC just did a report on this where they had the system enroll the face of one of their correspondents, and he was found by the face recognition system within seven minutes of walking out the door. These systems are far more advanced than what we're seeing in the United States today. But without restrictions, without laws in place to limit these systems, without transparency, without public knowledge about this, these systems are being deployed, and there are very few practical limitations on a U.S. agency deciding to purchase them. ■

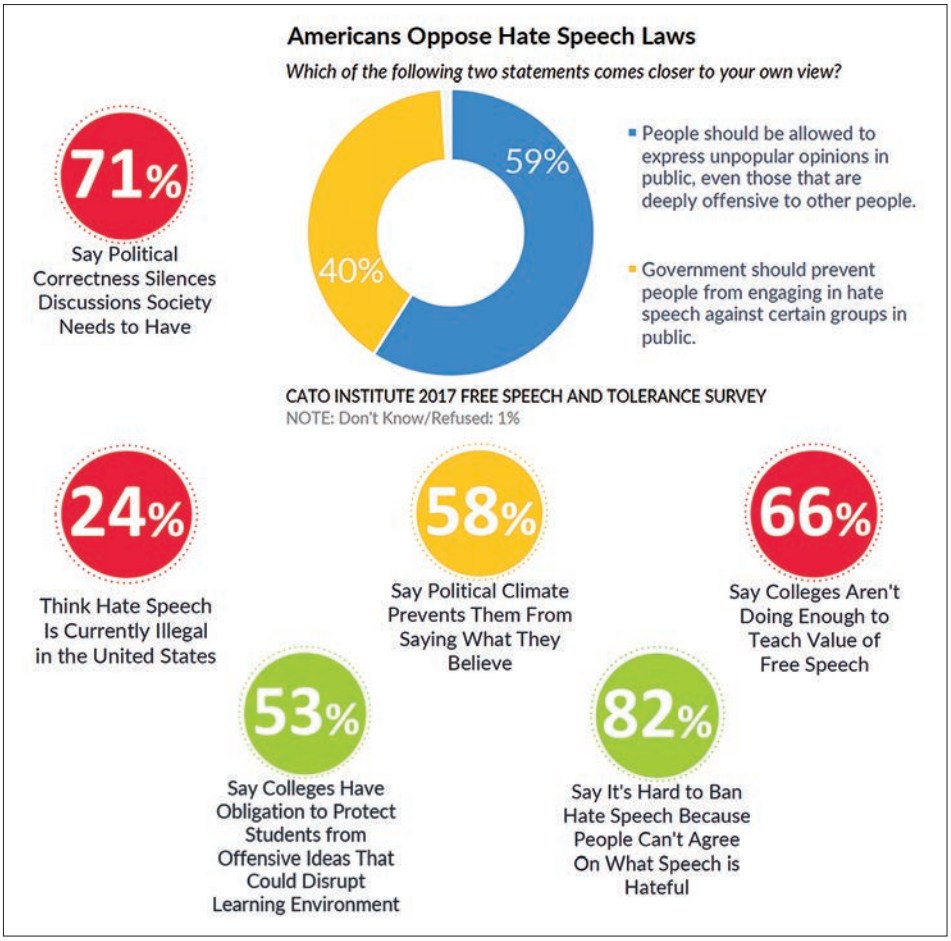
Cato's First Amendment Project

Defending Speech for All

The First Amendment's guarantee of freedom of speech is one of the most fundamental American rights—but in recent years, Americans seem to have lost sight of what it means. Liberals call for bans on microaggressions and other terms they deem offensive; conservatives call for jailing flag-burners and back the president in his calls to strengthen libel laws. Both sides of the aisle have embraced a "right" not to be offended over the right to free expression.

In light of this, Cato's First Amendment Project is more important than ever. Cato scholars continue to defend freedom of expression for everyone, no matter how distasteful their opinion or politics. Cato's 2017 Free Speech and Tolerance Survey conducted by Emily Ekins has been at the forefront of the public debate over free speech and has been cited repeatedly in the *New York Times, Washington Post*, and the *Atlantic*, by Andrew Sullivan in his *New York* column, and by numerous other leading newspapers over the past several months. Walt Hickey of the FiveThirtyEight blog deemed the report "staggering." Among its findings: 63 percent of Republicans say that journalists today are an "enemy of the American people"; 52 percent of Democrats support banning "hate speech"; and 58 percent of Americans support a law banning flag burning. Yet at the same time, 67 percent of Americans still believe that freedom of speech means that the truth will eventually win out.

Cato senior fellow Flemming Rose has faced death threats over his stance on free speech—his decision to publish cartoons of the prophet Muhammad while he was the editor of a Danish newspaper made headlines and sparked protests around the globe. In December, the Danish government announced that it had invited Rose to be one of 10 members of a Free Speech Commission. The commission will provide an assessment of the legal foundation, history, and general status of free speech in Denmark and provide information for a national debate over free speech and its limitations. Earlier in the year, Rose hosted a program on Danish television network DR TV on which he interviewed thinkers from around the world on free speech and other political issues. ■



Emily Ekins's sweeping survey report, *The State of Free Speech and Tolerance in America*, features over 70 pages of in-depth graphics and data unpacking what Americans think about free speech, from freedom of the press to speech on college campuses.

READ EKINS'S FULL REPORT, ALONG WITH COMMENTARY FROM CATO SCHOLARS ON FREE SPEECH ISSUES, AT CATO.ORG.

CATO UNIVERSITY
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AUGUST 2—4, 2018
RANCHO BERNARDO
SAN DIEGO, CA

Explore the history of liberty and justice, wealth and poverty, individual rights, and the philosophical beliefs on which the American republic was founded.

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Americans have debated trade, tariffs, and our role in the global economy since the nation's founding. At a Cato Book Forum, DOUGLAS A. IRWIN of Dartmouth College discussed this history as explained in his new book, *Clashing over Commerce: A History of U.S. Trade Policy*.

Could private startup governments be the future of governance? At a Cato Book Forum and live Free Thoughts podcast recording, *Your Next Government?: From the Nation State to Stateless Nations*, author TOM W. BELL made the case that special economic zones across the world are transforming the way countries govern.

As a voluntary community driven by freedom of association, self-governance, nonviolent dispute mediation, and emergent order, does Burning Man hold lessons for libertarians? At a #CatoDigital event (left to right), GROVER NORQUIST of Americans for Tax Reform, MARK LUTTER of the Institute for Innovative Governance, Cato's KAT MURTI, journalist ROBERT MARIANI, and Thumbtack cofounder JEREMY TUNNELL discussed what libertarians can learn from Burning Man.

In December, MIKHEIL SAAKASHVILI, a former president of Georgia who now lives in Ukraine as a leading opposition figure, spoke at a Cato Policy Forum via Skype just one day after his dramatic arrest by—and escape from—the Ukrainian government. KATERYNA SMAGLIY, ANDREI ILLARIONOV, and SERGEI NOSENKO listen.

DECEMBER 4: The First Amendment vs. Anti-Discrimination Law: A Preview of *Masterpiece Cakeshop v. Colorado Civil Rights Commission* on the Eve of Oral Argument

DECEMBER 5: Campus Discipline under Title IX

DECEMBER 6: Cato Club Naples 2017 (Naples, FL)

DECEMBER 6: Is Ukraine on the Right Course?

DECEMBER 6: #CatoDigital—84th Anniversary Celebration of Repeal Day: The Lingering Effects of Alcohol Prohibition

DECEMBER 7: Curbing Wasteful Spending in 2018

DECEMBER 13: 2017 Cato Surveillance Conference

JANUARY 9: *The Elephant in the Brain: Hidden Motives in Everyday Life*

JANUARY 18: *Your Next Government?: From the Nation State to Stateless Nations*

JANUARY 18: Cato Institute Policy Perspectives 2018 (Phoenix, AZ)

JANUARY 23: Opportunities for Reform in 2018: The Domestic Agenda

JANUARY 23: *The Republic of Virtue: How We Tried to Ban Corruption, Failed, and What We Can Do about It*

JANUARY 24: *Clashing over Commerce: A History of U.S. Trade Policy*

JANUARY 24: #CatoDigital—Libertarian Lessons from Burning Man

JANUARY 30: The Trump Doctrine at One Year

JANUARY 31: *The Case against Education: Why the Education System Is a Waste of Time and Money*

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Cato Calendar

MILTON FRIEDMAN PRIZE PRESENTATION DINNER
NEW YORK • CIPRIANI • MAY 17, 2018
Speakers include Carlos Gutierrez.

CATO UNIVERSITY: COLLEGE OF HISTORY AND PHILOSOPHY
SAN DIEGO, CA • RANCHO BERNARDO INN
AUGUST 2–4, 2018
Speakers include Tom G. Palmer, Jacob Levy, Robert McDonald, and Christopher Preble.

17TH ANNUAL CONSTITUTION DAY
WASHINGTON • CATO INSTITUTE
SEPTEMBER 17, 2018
Speakers include George F. Will, Tom Goldstein, David Forte, Josh Blackman, and Jennifer Mascott.

CATO CLUB 200 RETREAT
MIDDLEBURG, VA
SALAMANDER RESORT & SPA
SEPTEMBER 27–30, 2018

CATO INSTITUTE POLICY PERSPECTIVES
NEW YORK
INTERCONTINENTAL BARCLAY
OCTOBER 12, 2018

CATO UNIVERSITY: COLLEGE OF ECONOMICS
BOSTON • OMNI PARKER HOUSE
OCTOBER 25–27, 2018
Speakers include Jeffrey Miron, Lynne Kiesling, and Deirdre McCloskey.

REASSESSING MONETARY POLICY 10 YEARS AFTER THE CRISIS
36TH ANNUAL MONETARY CONFERENCE
WASHINGTON • CATO INSTITUTE
NOVEMBER 15, 2018
Speakers include Jeffrey Lacker, Michael D. Bordo, Scott Sumner, Jeffrey Frankel, David Beckworth, and George Selgin.

31ST ANNUAL BENEFACTOR SUMMIT
WASHINGTON • CATO INSTITUTE
APRIL 4–7, 2019

How Cato analysis paved the way for corporate tax reform

A Revolution over 10 Years in the Making

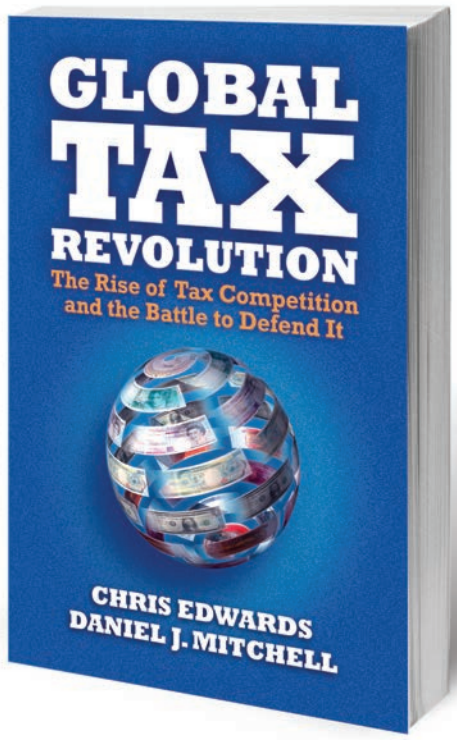
In December, Congress passed the largest tax overhaul in decades. While the legislation has its flaws, at its center were several key reforms that Cato Institute analysts have advocated for many years, particularly cuts to corporate taxes to keep America globally competitive.

Chris Edwards and Veronique de Rugy's 2002 Policy Analysis "International Tax Competition: A 21st-Century Restraint on Government" was an early warning to Congress to cut the corporate tax rate in order to respond to global tax competition. "As international capital and labor mobility rises, the risks associated with not having an efficient federal tax structure increase," they wrote. "This country should respond to rising tax competition by moving toward a low-rate consumption-based system." While these arguments have since become commonplace ideas in the world of tax reform, they were not at the time.

Edwards and Dan Mitchell's groundbreaking 2008 book *Global Tax Revolution* was also influential in advocating corporate tax cuts. It laid out a comprehensive strategy for tax changes that would fuel American competitiveness, growth, and success in the world's marketplace. At the time of its publication, Paul Ryan, then ranking member of the House Budget Committee, declared that "if you haven't read this book, you should. America is behind the curve when it comes to the way we tax our businesses and companies, and we're losing jobs because of it." Ryan has now been widely credited for finally pushing these corporate tax reforms into reality. Steve Forbes called Cato's book a "Superb, well-written, eye-opening survey of the exciting worldwide movement to cut individual and business taxes," and declared that "This masterpiece may not wake up myopic Washington, but it will arouse the American people to demand action!" Ten years later, it seems, his prediction has come true.

Edwards worked with members of Congress throughout the negotiations on the tax bill, and Cato's in-depth Policy Forums on tax reform were shown repeatedly on C-SPAN during the build-up to the vote. Edwards and fellow Cato scholar Ryan Bourne's idea for Universal Savings Accounts was also included in an earlier version of the House GOP tax bill and was discussed by congressional leaders in negotiations for the final legislation, although unfortunately it was left out of the final bill. In a Cato study, Bourne and Edwards described how similar accounts in Canada and the United Kingdom have become immensely popular and have benefited people of all ages.

Nevertheless, despite some disappointments in the final legislation, the triumph of corporate tax reform after 10 years of advocacy and scholarship underscores the impact of Cato's ongoing work to educate policymakers and the public on tax reform and economic growth. ■



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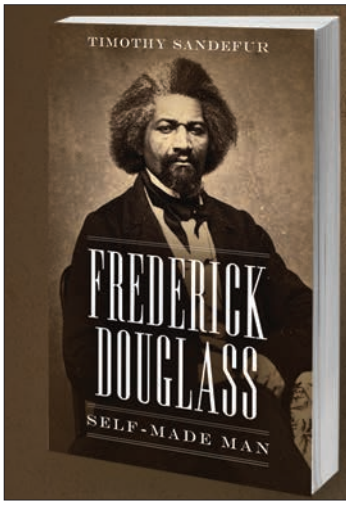

New from the Cato Institute

Born into slavery in 1818, Frederick Douglass rose to become one of the nation's foremost intellectuals. As the nation pauses to remember Douglass on his bicentennial, *Frederick Douglass: Self-Made Man* takes a fresh look at his remarkable life, ideas, and enduring principles of equality and liberty.

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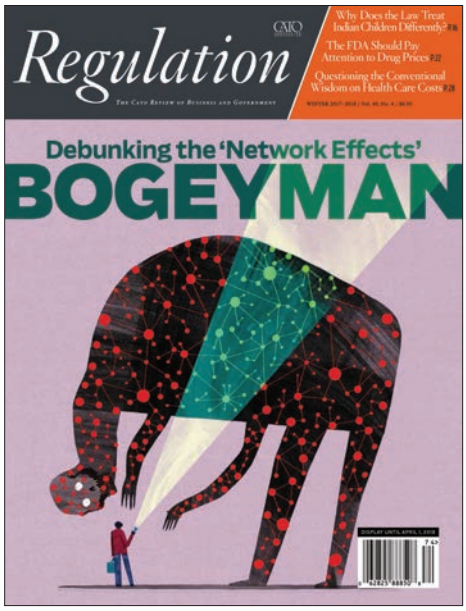
New Regulation *magazine*

The Regulatory Bogeyman?

Economists and policymakers have long discussed the concept of "network effects"—the idea that in some cases, services are more valuable if more customers are using them (think telephones and internet services) and therefore, once a firm captures enough customers, it can easily become a monopoly that will dominate the market forever. But in the modern age, when upstart companies like Spotify can quickly overcome internet giants like iTunes, are "network effects" little more than a regulatory bogeyman? In the Winter edition of *Regulation* magazine, David S. Evans of the Global Economics Group and Richard Schmalensee of MIT dissect the myths surrounding the supposed threat of network effects. Elsewhere in the issue, Timothy Sandefur of the Goldwater Institute reveals how U.S. law continues to subject Native American children to racial segregation and unequal treatment, Cato adjunct scholar David Hyman and law professor William E. Kovacic explain why the FDA should pay attention to drug prices, and Tom Miller of the American Enterprise Institute argues that much of the conventional wisdom behind current health care policy has ambiguous empirical support. The new edition also features book reviews of *Dream Hoarders* by Richard Reeves, *Freedom & Reform* by Frank H. Knight, *The Future of Law & Economics* by Guido Calabresi, *James M. Buchanan and Liberal Political Economy* by Richard E. Wagner, and more. ■



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Advice on welfare reform from two great modern reformers

New *Cato Journal* Issue

The Winter 2018 *Cato Journal* features articles by two men who know a thing or two about economic reform: Leszek Balcerowicz, the former deputy prime minister and finance minister of Poland (and winner of the 2014 Milton Friedman Prize for Advancing Liberty) who was widely credited with the economic transformation of Poland in the 1990s, and Roger Douglas, the former finance minister of New Zealand who played a similar role in liberalizing New Zealand's economy through what became known as "Rogernomics." Balcerowicz, with coauthor Marek Radzikowski, discusses how welfare reform advocates could make their arguments more effective by making them more targeted and clarifying the meaning of "the welfare state," while Douglas and coauthor Robert MacCulloch use New Zealand as a case study in how a country can effectively move from a publicly funded welfare system to one that relies largely on private funding coming from compulsory savings accounts. Elsewhere in the issue, Charles W. Calomiris of Columbia University outlines major structural problems of the Federal Reserve that are in dire need of reform, Kevin Dowd of Durham University makes the case against "helicopter money," and David Stevenson of the Caesar Rodney Institute investigates whether the Regional Greenhouse Gas Initiative actually reduced CO_2 emissions from electric power plants or produced any public health benefits. ■

***CATO JOURNAL* IS AVAILABLE TO READ OR PURCHASE AT CATO.ORG.**

Private Schools' Public Benefit

In **"The Public Benefit of Private Schooling: Test Scores Rise When There Is More of It"** (Policy Analysis no. 830), Cato's Corey DeAngelis studies the effect that increased access to private schooling has on international student test scores in 52 countries around the world. Controlling for various other factors, he finds that a 1 percentage point increase in the private share of total primary schooling enrollment would lead to moderate increases in student math, reading, and science achievement within nations. And these moderate increases could potentially have great impact—DeAngelis notes, for example, that the United States ranked 40th in math and 24th in reading on the 2015 PISA exam. "If the United States had experienced a 10 percentage point increase in private school enrollment at that time (an increase that would be out of the ordinary for the United States), I estimate that the nation would have achieved a 14-point increase in math and a 10-point increase in reading, resulting in the country being ranked around 34th in math and around 13th in reading," he writes.

WHY FUNERALS ARE SO EXPENSIVE

In America, the number of people subjected to occupational licensing regulations has risen dramatically in recent years—from 5 percent of the workforce in 1950 to over 25 percent today. In **"The Undertaker's License"** (Research Briefs in Economic Policy no. 91), Brandon Pizzola and Alex Tabarrok of George Mason University examine the effects of occupational licensing by reviewing the funeral services industry in Colorado, the only state that does not license funeral directors, having repealed licensing in 1983. They find that before 1983, funeral services industry prices were roughly the same in Colorado and the rest of the United States. But after 1983, funeral services prices in Colorado fell and grew more slowly than in the rest of the country.

A NATIONAL ID IS COMING

Despite the fact that most Americans oppose the creation of a national ID system, numerous states are quietly developing them. In **"The New National ID Systems"** (Policy Analysis no. 831), Jim Harper, the executive vice president of the Competitive Enterprise Institute and a former Cato senior fellow, summarizes the stances of each of the 50 states on various ID systems, including REAL ID, E-Verify, facial recognition, and license-plate scanning. "Officials and citizens in every American state should review their states' identification, data collection, and data retention policies," he warns. "The privacy and liberty of all Americans are threatened by such increasingly widespread surveillance systems."

COUNTERPRODUCTIVE SUBSIDIES

Free-market economists have long argued that private markets have mechanisms to internalize externalities without government intervention. In **"Shops and the City: Evidence on Local Externalities and Local Government Policy from Big-Box Bankruptcies"** (Research Briefs in Economic Policy no. 92), Daniel Shoag of the Harvard Kennedy School and Stan Veuger of the American Enterprise Institute set out to provide empirical evidence of these mechanisms and show how government intervention hampers them. The authors examine how local governments try to incentivize big-box retail stores to stay in business. Often the governments use sizable subsidies and tax expenditures intended to spur economic development, as in St. Louis, Missouri, where local governments provided more than $5.8 billion in local subsidies over the past 20 years, about 80 percent of which went to retail stores. But they find that these subsidies in fact disincentivized private solutions that cropped up in other areas, such as in shopping malls that provide heavily reduced rental rates to big-box stores.

THE POWER OF THE INTERNET

In **"The Arrival of Fast Internet and Employment in Africa"** (Research Briefs in Economic Policy no. 93), Jonas Hjort of Columbia University and Jonas Poulsen of Harvard University examine how access to high-speed internet affects economic success in poor countries. They find that internet access can revolutionize employment rates and job inequality—the probability that an individual is employed increases by 4 percent or more when fast internet becomes available, and the probability of being employed in a position belonging to a skilled occupation increases as well. Internet access appears to shift individuals out of low-productivity occupations, such as small-scale farming, and toward higher-productivity jobs. They also find that inequality in employment outcomes falls when fast internet arrives in Africa.

REFUGEES AND EDUCATIONAL OUTCOMES

As of 2015, there were 65.3 million refugees and internally displaced people around the globe, the most in history. In **"Unwelcome Guests? The Effects of Refugees on the Educational Outcomes of Incumbent Students"** (Research Briefs in Economic Policy no. 95), David N. Figlio of Northwestern University and Umut Özek of the American Institute for Research conduct the first analysis of the effects that a large influx of refugees has on the educational outcomes of incumbent students. They study one of the largest recent influxes of refugees into the

United States, following the devastating earthquake in Haiti in 2010, when over 4,000 refugee students entered Florida public schools in just one year. Ultimately, they find little evidence that the refugee population had any negative impact on outcomes for native students.

HOW TARP ENRICHED INSIDERS

When government bails out business, how do the insiders—the politically connected managers of firms—benefit? In **"Political Connections and the Informativeness of Insider Trades"** (Research Briefs in Economic Policy no. 94), Alan D. Jagolinzer of the University of Cambridge, David F. Larcker of Stanford University, Gaizka Ormazabal of the University of Navarra, and Daniel J. Taylor of the University of Pennsylvania examine the relationship between political connections and informed trading by corporate insiders at leading financial institutions during the financial crisis. They find evidence of abnormal trading by politically connected insiders a full 30 days before TARP infusions, and that these trades predicted the market reaction to the infusion.

WHEN A ROBOT TAKES YOUR JOB

In **"People versus Machines: The Impact of Minimum Wages on Automatable Jobs"** (Research Briefs in Economic Policy no. 96), Grace Lordan of the London School of Economics and David Neumark of the University of California at Irvine examine whether minimum wage laws incentivize companies to replace workers with automation. Their study provides the first evidence on how the shares of automatable jobs change following a minimum wage increase, and on the effects of minimum wages on groups that are very often ignored in the minimum wage literature, such as older, less-skilled workers. They find that increasing the minimum wage significantly decreases the share of automatable employment held by low-skilled workers. Overall, they estimate that an increase of the minimum wage by $1 decreases the share of low-skilled automatable jobs by 0.43 percentage point.

THE DANGER OF CAMPAIGN FINANCE LAWS

In the wake of Citizens United, advocates of campaign finance restrictions have called for more extensive donor disclosure laws, often citing Supreme Court Justice Louis Brandeis's famous maxim that "sunlight is said to be the best of disinfectants." In **"Staring at the Sun: An Inquiry into Compulsory Campaign Finance Donor Disclosure Laws"** (Policy Analysis no. 829), campaign finance attorney Eric Wang, a senior fellow

at the Institute for Free Speech, considers whether all this proposed "sunlight" might have unintended harmful effects. Wang argues that, in an age in which free speech is increasingly under siege from both sides of the political spectrum, it is more important than ever to preserve the right of individuals to engage in politics without the fear of reprisal that comes from having their names, addresses, and employer information posted on the internet because of compulsory donor disclosure laws.

HOW CRIMINAL MINDS ARE MADE

What make someone a criminal? In **"Making a Narco: Childhood Exposure to Illegal Labor Markets and Criminal Life Paths"** (Research Briefs in Economic Policy no. 97), Maria Micaela Sviatschi of Princeton University studies how childhood environment and parental responses can affect criminality later in life. She finds that criminal careers can develop during childhood. In Colombia, for example, individuals who grew up in coca-producing areas and experienced high coca prices during childhood are about 30 percent more likely to be incarcerated and have 20 percent lower earnings than their counterparts. She then tests how changing incentives and responses for parents can mitigate these risks—areas where parents were given money with the condition that children attend school on a daily basis, for example, experienced a significant reduction in coca production and child labor, which resulted in better outcomes for the children.

SPENDING MONEY DOWN THE DRAIN

How does massive government spending actually affect the economy? Past studies attempting to quantify the effects of spending have faced challenges. In **"Local and Aggregate Fiscal Policy Multipliers"** (Research Briefs in Economic Policy no. 98), Bill Dupor and Rodrigo Guerrero of the Federal Reserve Bank of St. Louis use new data to study the effects of U.S. defense on the economy, finding that spending has resulted in a less than one-for-one increase in national income. ■

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"To Be Governed..."

"THERE OUGHTA BE A LAW" IS ALMOST ALWAYS WRONG

I would love to pass laws that help celebrity parents be able to take their kids to places without having to worry about paparazzi.

—JENNIFER LAWRENCE IN *HOLLYWOOD REPORTER*, DECEMBER 6, 2017

OR MAYBE SOCIALISM

Three more empty boats were found along Japan's west coast on Thursday, a day when the snow and the rain made sure the temperature never really rose above freezing. Two bodies reduced to skeletons were found near one, which was upturned on the shore near the city of Oga. . . . Many analysts think it's a reflection of food shortages, which in turn are the result of tougher sanctions on North Korea imposed to punish the regime for its continued nuclear defiance.

—*WASHINGTON POST*, DECEMBER 7, 2017

TAX BILL WOULD LEAVE AMERICANS STUMBLING BLINDLY, WITH NO INSTRUCTIONS ON HOW TO SPEND THEIR MONEY

Because the [tax bill] blueprint raises the standard deduction to cut taxes for many low- and middle-income Americans, it makes the mortgage interest write-off less useful. That could discourage homeownership, especially among first-time buyers, and lead to higher tax bills over time, [housing lobbyists] said.

"We're looking at the current draft plan as an assault," [National Association of Home Builders] Chief Executive Officer Jerry Howard said. "By raising the standard deduction you put money in people's pockets, yes, but you're not encouraging them how to use the money."

—*POLITICO*, DECEMBER 31, 2016

AUTHORITARIANISM SPREADS

Culture is the soul of the nation, Chinese President Xi Jinping declared in a key speech last month. And like Chairman Mao Zedong before him, Xi believes that Chinese culture must serve socialism and the Communist Party.

This week, more than 100 of the nation's top filmmakers, actors and pop stars were gathered for a day in the city of Hangzhou to be told exactly what that meant in practice, and to study the spirit of the 19th Party Congress, where Xi gave that speech and set out his "Thought on Socialism with Chinese Characteristics for a New Era."

—*WASHINGTON POST*, DECEMBER 2, 2017

McDonald's and Pizza Hut just joined a club once reserved for smoke shops and sex stores: This week, London Mayor Sadiq Khan announced a plan to ban them—and all fast-food joints—from opening near London schools.

—*WASHINGTON POST*, DECEMBER 2, 2017

WHO REPRESENTS THE TAXPAYERS IN THIS GAME?

Senate Minority Leader Charles E. Schumer (N.Y.) and other Democrats are playing a chess game: They know Republicans want an increase in defense spending, and they're seeking to use that as leverage to gain domestic spending increases, renewal of the Children's Health Insurance Program, disaster relief and DACA legislation.

—DANA MILBANK, *WASHINGTON POST*, JANUARY 10, 2018

DEMOCRATS FINALLY AGREE THAT TAXATION IS THEFT?

"This GOP tax scam is simply theft—monumental, brazen theft from the American middle class and from every person who aspires to reach it," House Minority Leader Nancy Pelosi, D-Calif., said.

—*USA TODAY*, DECEMBER 19, 2017

HOW SMALL, OF ALL THAT HUMAN HEARTS ENDURE, THAT PART WHICH LAWS OR KINGS CAN CAUSE OR CURE

Britain, in fact, already has a serious problem with loneliness, research has found. More than nine million people in the country often or always feel lonely, according to a 2017 report published by the Jo Cox Commission on Loneliness. The issue prompted Prime Minister Theresa May on Wednesday to appoint a minister for loneliness.

—*NEW YORK TIMES*, JANUARY 18, 2018

YES, PRIME MINISTER

Defense Secretary Jim Mattis used an approach that aides say can work: "He says, 'Your instincts are absolutely correct,' and then gets him [the president] to do the exact opposite of what his instincts say," said one person close to the White House.

—*WALL STREET JOURNAL*, JANUARY 18, 2018