

NATIONAL



# Smoke Signals

## Why health experts are worried about electronic cigarettes—and their growing use among teens

BY CARL STOFFERS

ANALYZE THE ARTICLE

**B**randon Smith was never interested in tobacco cigarettes. But the 20-year-old from Norristown, Pennsylvania, has been using e-cigarettes since he was 17.

"Regular cigarettes smell," says Smith, "but mostly, they taste bad. I got into vaping mainly because of the flavor and the lack of odor."

Smith's story is not uncommon. Since they appeared in the U.S. in early 2007, e-cigarettes have grown in popularity, especially among young people, who are often attracted to flavors like Yummi Gummi Bear, Cotton Candy, and Banana Split. But a lack of research on the long-term health effects of e-cigs means there are serious questions about their safety.

And health experts worry that e-cigs can be a gateway, leading young people down the path to smoking tobacco cigarettes.

"These products are obviously geared toward targeting the underage market," says Cliff Douglas of the American Cancer Society. "We're unsure of the long-term health risks, so the users of these products are, in fact, guinea pigs at this point."

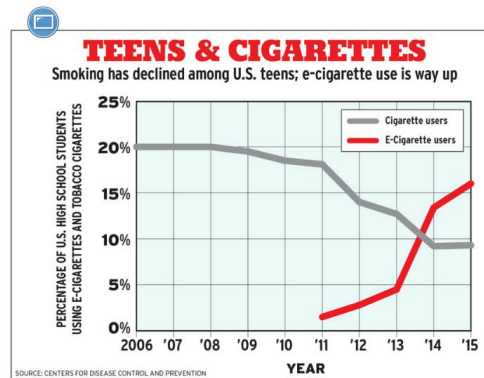
While tobacco use among teens and young adults has steadily declined in the last 10 years, e-cigarette use has significantly increased, according to the Centers for Disease Control and Prevention (*see graph*). The sharp increase prompted the federal government to take action last spring, when the Food and Drug Administration released guidelines that govern the sale of

e-cigarettes and related products. But some critics say the new regulations may do more harm than good and could push young people toward using tobacco.

### Invented in China

E-cigarettes—handheld, battery-powered devices that vaporize liquid—were invented in 2003 in China as a way to deliver nicotine without the cancer-causing tar and chemicals in tobacco cigarettes. A typical device consists of a battery, a heating coil, and a tank that can be filled with different types of liquid. When the coil gets hot, the liquid—which is often flavored and usually contains nicotine—vaporizes into an aerosol and is inhaled, leading many to refer to e-cig use as "vaping."

One of the big questions about e-cigs is what happens when the liquid is



SOURCE: CENTERS FOR DISEASE CONTROL AND PREVENTION

heated and the chemical compounds begin to change. Critics say that heating the liquid creates potentially harmful by-products that are inhaled by the user.

Recent research by scientists at the Lawrence Berkeley National Laboratory in California found that heating e-cig liquid to a high temperature produces a vapor containing several cancer-causing chemicals, including formaldehyde. E-cigarette makers and some health experts disagree with the findings and

say more tests are needed.

But everyone agrees that nicotine, an ingredient in tobacco and many e-cig liquids, is highly addictive and can lead to brain, heart, and vision issues.

"It's clear that there are health risks associated with e-cigarettes," says Douglas. "Whether you are talking about the carcinogens in the vapor or not, nicotine in high-enough doses has acute toxicity, and exposure during

adolescence may have consequences for brain development."

Critics say e-cigarette makers are targeting young people with marketing campaigns designed to make vaping seem fashionable. Big tobacco companies have long been accused of marketing their products to young people. The most famous example was the Joe Camel mascot in Camel cigarette ads in the 1980s and 90s.

A spokesman for Blu, one of the most popular e-cigarette brands, declined to comment on the product's potential side effects and the industry's marketing methods. Several other manufacturers didn't respond to requests for comment.

Even experts who see e-cigarettes as a possibly less harmful alternative to tobacco insist that they're not completely safe and that it's healthier not to use them.

"We don't know enough about the long-term effects of e-cigarettes," says Andrea Villani, director of the Schroeder Institute for Tobacco Research, a public health organization that studies tobacco use. "The ideal situation is to be tobacco- and nicotine-free."

### New Regulations

The presence of nicotine in many e-cig liquids—combined with the increase in vaping by young people—led to the FDA's recent decision to regulate them as tobacco products, despite the fact that they don't contain tobacco.

**'The users of these products are, in fact, guinea pigs at this point.'**

The new rules prohibit the sale of e-cigarettes to minors and ban sales on the internet and from vending machines. They also establish an expensive application process to introduce new products.

"We are very pleased that the FDA finally released this rule," says Katie McMahon, a policy expert at the American Cancer Society. "We've been waiting years for this kind of regulation to happen."

Some, however, think that the strict new regulations could cripple the e-cigarette market and lead to unanticipated consequences for users.

"The approach the FDA is taking is going to hurt public health more than help it," says Michael Siegel of Boston University's School of Public Health. "It will decimate the market, and when 99 percent of products available now are gone, people are going to go back to tobacco. So it actually promotes smoking."

Smith, the 20-year-old e-cig user, is concerned about the FDA's action. Still, he insists that he will continue using e-cigs as long as they're available.

"I just hope e-cigarettes don't disappear now," says Smith. "I can't see myself smoking tobacco cigarettes, but if I can't vape, you never know." ♦



E-cigarette liquids often contain nicotine. Critics say they're flavored to appeal to young people.

Download more data on e-cigarette usage.

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INTERNATIONAL

# Brave New World

Young Muslim refugees from the war-torn Middle East are desperately trying to escape and build new lives in Europe. Will they succeed?

ANALYZE THE ARTICLE

BY MELISSA EDDY



Migrants traveling from Turkey on an overcrowded fishing boat reach the island of Lesbos, Greece, last year.



In the summer of 2015, Ahmad Dandoush, now 23, crammed himself, along with his brother and two dozen others, into a rubber boat designed for eight people. They set off from Turkey, heading across the dangerous waters of the Mediterranean for Greece.

The Syrians, Afghans, and Iraqis who were packed into the tiny boat were fleeing violence and upheaval in their homelands. Each had paid \$1,000 to smugglers, hoping to reach Europe and its promise of a new life. Dandoush, who grew up in the Syrian city of Latakia, was running from that nation's civil war, which has killed close to 500,000 people and caused millions to flee for their lives.

"We all knew what happened to other refugees, that some had died," Dandoush recalls. "We just wanted to get to Greece alive."

When they reached the shores of Lesbos, Greece, Dandoush was among the first to spring from the boat—his first step on a three-month-long journey across Europe by train, by taxi, and on foot. By the time he arrived in Germany last October, the trip had taken him through five countries—Greece, Macedonia, Serbia, Hungary, and Austria—cost him \$3,000, and left him 20 pounds lighter.

Dandoush is one of nearly 900,000 migrants who've made their way to Germany in the past year seeking asylum (protection given by a government to a refugee from another country). They're part of the biggest refugee crisis that Europe has experienced since the end of World War II. Germany, with its strong economy and generous social welfare benefits, has been a top destination choice for the migrants, who are mostly from Syria, Iraq, and Afghanistan.

#### A Warm Welcome & Then Backlash

Initially, Germans welcomed them. But integrating these new arrivals, most of whom are Muslim, poses one of the biggest challenges the country has faced in decades. It wasn't long

Watch a video about migrants working in Germany.



Ahmad Dandoush in Weimar, Germany, where he's trying to build a new life



A boat overcrowded with migrants en route to Greece last year; Dandoush made the trip in a boat similar to this.



## A Migrant's Journey

The route Ahmad Dandoush took from Turkey to Germany over three months in 2015



### Top 5 Destinations Countries with the most applications for asylum (2015)

1. GERMANY	2. HUNGARY	3. SWEDEN	4. AUSTRIA	5. ITALY
441,800	174,435	156,110	85,505	83,245

SOURCE: EUROSTAT

before a backlash against the migrants began. There were more than 1,000 attacks on refugee shelters in 2015, including 92 incidents of arson. And far-right political parties that call for closing the door to more migrants have been gaining in popularity. Those groups have targeted Muslims with their rhetoric and held sometimes violent demonstrations against the influx of foreigners.

Fears of Muslim newcomers have been heightened by terrorist attacks carried out in Europe by the Islamic State, a radical group also known as ISIS that now controls large swaths of Syria and Iraq. The attacks include the one in Paris last November, which killed 130 people. Having made it to Germany, Dandoush

is one of the lucky ones. About 11,000 migrants are trapped in camps in Greece, held behind barbed-wire fences.

Overwhelmed by the flood of migrants, several countries Dandoush passed through have since sealed their borders, and in March, the European Union reached a deal with Turkey to send some migrants back to Turkey.

From the moment he crossed the border into Germany in October 2015, Dandoush began throwing himself into adjusting to his new life. His first priority: learning German, with the help of an app developed by the German government.

Even though some Germans would rather migrants like him went back to where they came from, Dandoush wants to put down roots in Germany. First he needs the equivalent of a high school diploma so he can go to college. That, he hopes, will lead to a good job.

Dandoush fled Syria in 2014 to avoid being drafted into the army of Syrian dictator Bashar al-Assad. The bloody civil war there, now in its sixth year, is one of the main causes of Europe's refugee crisis (see *Update: Syria's Civil War*). Dandoush went to neighboring Turkey, where he worked odd jobs. But singing is

**'They call us terrorists. . . . That really hurts because we ran from ISIS.'**

PREVIOUS SPREAD: ANTHONY HASSELL/PHOTO VIA ZUMA PRESS; OPPOSITE SPREAD: DANIELA GROSSMANN/GETTY IMAGES; ASSIGNMENT FOR SCHOLASTIC: AHMAD DANDOUSH; 'MUSIC BEHIND/REUTERS (LEFT), THE PAGE: JIM HICKMAN.



his passion, and while in Turkey he tried out for *Anab Idol*, a TV contest modeled after *American Idol*. He made it onto the show and was invited to the finals.

But by the time the call came, summer—when the waters of the Mediterranean are calmer—was nearly over, and Dandoush had saved enough money for the trip. He couldn't wait.

Dandoush had to give up his chance at stardom, but many migrants have had to endure much greater hardships.

"Many children and young people have traumatic experiences behind them, from the reasons they were forced to flee, to what may have happened en route to Europe," says Ninja Charbonneau of UNICEF.



An anti-migrant protest in Riesa, Germany, in 2015

### Fears of Extremism

Roughly a third of Germany's new arrivals are children or teens; young adults ages 18 to 25 account for almost another quarter of the refugees. Many hope to continue their education, and the German government is eager for them to do so.

What Germany doesn't want is for the newcomers to wind up living in segregated communities. It fears such areas could become fertile ground for Islamic terrorists, as they have in parts of France and Belgium.

To prevent such **parallels** societies from forming among the newest arrivals, the German government passed the coun-

try's first integration law. It provides refugees with housing assistance, health-care, language lessons, and help getting jobs in exchange for adopting Germany's customs and following its laws.

Adapting to a new culture is easier for young people than for their parents. Still, many struggle with the more subtle challenges. Most come from conserva-

## UPDATE: Syria's Civil War

The war has killed half a million people and displaced half the population



A baby is rescued from a bombed building in Aleppo last spring.

Nowhere is the devastation of Syria's civil war more apparent than in the ruined city of Aleppo. Once a **cosmopolitan** place full of shops and ancient buildings, Syria's largest city has been bombed relentlessly and, in many areas, reduced to piles of rubble.

The United Nations says 275,000 people are trapped in the rebel-held eastern part of the city. People inside the besieged area say conditions are desperate.

"Every day is worse than the last," says Bassem Ayoub, an Aleppo resident. "Every day I leave my house, I keep in mind that I might not be back. All the people are doing the same here. We're living day by day."

The conflict in Syria, which began in 2011, pits the regime of President Bashar al-Assad against rebel groups ranging from moderates seeking to oust the longtime dictator to Islamic terrorists like ISIS. The war has killed about 500,000 people and displaced half the country's prewar population of 22 million.

The war has become more complicated since Russia intervened last year to prop up Assad. There are many other groups now involved in the fighting: the Lebanon-based terrorist group Hezbollah, Shiite fighters from Iraq, and militias from Iran. The U.S. supports some of the moderate rebel groups and has called for Assad's removal from power.

—Patricia Smith

FABRIZIO BENSCH/RETNA (PROTEST); AMER ALHAI/ANP/GETTY IMAGES (ALEPPO)

## The U.S. and Refugees

The Obama administration admitted 12,500 Syrians last year and set a goal of accepting more in 2017

In September 2015, as thousands of migrants fleeing the war in Syria were dying in the Mediterranean Sea, President Barack Obama promised that the United States would do its part and accept at least 10,000 Syrian refugees over the next year.

Although the resettlement process was slowed by security checks, the U.S. met its goal this past August. By October 1, the U.S. had admitted 12,500 Syrian refugees, and set a goal of accepting even more over the next year.

However, accepting the Syrian refugees has stoked controversy. Critics say that terrorists might be let in along with the refugees. And refugee **advocates** say that America should be accepting far more Syrian refugees, considering the scale of the crisis in Syria and the huge number of refugees flooding into countries in the Middle East and Europe. By comparison, Canada has so far resettled more than 32,000 Syrian refugees.

In the past, the U.S. has let in tens of thousands of refugees at a time.

It admitted 111,000 Vietnamese refugees in 1979 and 207,000 in 1980, after the Vietnam War. In 1980, the U.S. also took in more than 120,000 Cuban refugees. But security concerns following the September 11, 2001, terrorist attacks led to a steep drop in refugee admissions.

"I understand the security delays," says Susan Martin, a migration expert at Georgetown University in Washington, D.C., "but I think the government can do a lot more to make the system more efficient."

—Patricia Smith

ervative Muslim countries that have male-dominated societies. In Germany, boys are confronted for the first time with women in positions of authority. And girls have to reconcile their family's expectations of modesty with the kissing couples they see on the streets and German girls wearing shorts at school.

### Hoping to Finish High School

Loreena,\* a 14-year-old from Syria, is in ninth grade at a German high school in the eastern city of Weimar, where her family now lives in a three-room apartment in a former Communist housing project. Her family belongs to the Yazidi religious minority, a group that's been targeted by ISIS. The militants have enslaved Yazidi women and girls, and forced them to marry ISIS fighters.

Like Dandoush, Loreena's goal is to finish high school so she can go to college. Loreena speaks Arabic, Kurdish, and Turkish, and she's picked up German quickly. More difficult than schoolwork is making friends with German kids.

"The German girls don't like us," she says. One classmate she worked with on a school project completely ignored her the following day when they passed each other on the street. Although Loreena doesn't wear a head scarf, one of her best friends who's also a Syrian refugee does, and the two are often taunted.

"They call us terrorists and say we

are from ISIS," she says. "That really hurts because we ran from ISIS. They chased us out of our country!"

Loreena came with her parents. Shakir Yakoupi, 16, wasn't so lucky: He's one of 14,000 unaccompanied juveniles to arrive in Germany last year. Shakir made his way from Kandahar, Afghanistan, through Iran and Turkey, and then across the Mediterranean, along the route Dandoush took. Shakir's parents sent him to Germany on his own out of fear he would be targeted by the Taliban; his father, who worked for a German government agency in Afghanistan, is now considered a traitor.

Once in Germany, each juvenile who arrives without any family is assigned a legal guardian and a place to live, either with a foster family or in a group home. They're enrolled in school and given a monthly allowance of about \$160.

At the start of school last year, Shakir landed a scholarship at a prestigious boarding school in western Germany. He began intensive language classes, as well as courses in math, science, and art. In his free time, Shakir joins pickup soccer games with his German friends on the school's campus. One of the first things he bought with his allowance was a German national team soccer jersey.

"I like the German team very much," he says in nearly fluent German.

Normally, his money goes for things like gel to style his spiky black hair, bus trips to visit his brother in another part of the country, and of course his phone. Cellphones are critical for every refugee. They serve as pocket dictionaries and translators, and they allow refugees to stay in touch with family and friends back home or in other European countries via Facebook, Instagram, or WhatsApp.

Back in Weimar, Dandoush has also discovered that soccer is a good way to make friends. He plays with a group of refugees and Germans once a week. The rest of his free time is devoted to improving his German. As part of that effort, he's taken to riding his bike in the park and striking up conversations with elderly Germans.

"At first they look at me kind of funny, but when I sit down next to them on the bench and start talking, I think it makes them happy," he says, smiling. "The people here are really good, really nice. Some of them just need some time to get used to us." •

Melissa Eddy covers Germany for *The New York Times*.

\*Loreena asked that her last name not be used to protect family members who remain in Syria.



# Are Zoos Ethical?

The idea of the zoo goes way back: Archaeologists have discovered evidence of a zoo belonging to the pharaohs in ancient Egypt, and Chinese emperors around 1000 B.C. are known to have kept large animals in cages. But it wasn't until the early 19th century that public zoos began appearing, in European cities like Paris and London. The first American zoo opened in Philadelphia in 1874.

Today, there are more than 200 zoos in the United States. Last May, a 3-year-old boy fell into the gorilla enclosure at the Cincinnati Zoo, prompting authorities to shoot and kill a 17-year-old lowland gorilla named Harambe. The incident shocked Americans and rekindled a long-standing debate about the ethics of zoos and aquariums and keeping animals in captivity.

- Analyze the arguments.
- Cast your vote and see instant results.



A gorilla behind glass at the Bronx Zoo in New York City

**Zoos**  
By the Numbers

**10,000**  
ESTIMATED NUMBER of zoos worldwide.  
SOURCE: NATIONAL GEOGRAPHIC

**700 million**  
ESTIMATED NUMBER of people who visit zoos and aquariums worldwide annually.  
SOURCE: WORLD ASSOCIATION OF ZOOS AND AQUARIUMS

**\$186 million**  
AMOUNT of money spent in 2015 on conservation by institutions belonging to the Association of Zoos and Aquariums.  
SOURCE: ASSOCIATION OF ZOOS AND AQUARIUMS

**YES** In a world where some of our favorite animals—including lions, cheetahs, frogs, elephants, and others—are at risk of vanishing forever like the dinosaurs, zoos are a safe haven from poaching, habitat loss, climate change, and disease. Zoos provide protected space for animals where we can study them and work to minimize the threats—with the ultimate goal of returning endangered species to wild spaces.

Conservation is the primary function of zoos. Consider the case of the black-footed ferret: In the United States, habitat loss and disease had wiped the animals out, and people thought the species was extinct. After a few dozen wild ferrets were discovered in 1981, zoos brought the animals into human care in 1985. They worked with the federal government to learn about and breed the animals, and have been returning ferrets to the wild. Today, 1,000 black-footed ferrets live in the wild—all because zoos prevented their extinction.

Zoos are returning other species to their native habitats too: the scimitar-horned oryx (similar to an antelope),

Przewalski's horses (an endangered species of wild horse), a kind of monkey called the golden lion tamarin, and California condors, just to name a few. U.S. zoos and aquariums spend about \$160 million a year to save species.

Zoos allow scientists to get up close to the animals to learn about their behavior, reproduction, and genetics—all of which are key to helping save them. Scientists don't have this kind of access in the wild.

Zoos also inspire visitors to take action in their own lives to help conserve wildlife. More than 180 million people visit American zoos each year, giving them the opportunity to connect with and learn about animals.

If animals can't live safely in their wild homes, we want to make sure they thrive in human care, and we want to partner with other researchers, governments, businesses, and nonprofits to tackle conservation comprehensively. Saving species is an evolving and ongoing commitment. That's why zoos are not only ethical—they're critical. •

—DENNIS KELLY, Director  
Smithsonian's National Zoo, Washington, D.C.

**Zoos are a safe haven from poaching, habitat loss, and disease.**

**NO** Zoos are first and foremost about entertainment, and the stars of the show are unwilling participants: caged animals. In zoos, animals are typically denied everything that makes their lives meaningful, and virtually every aspect of their existence is controlled and manipulated to maximize visitor satisfaction.

Zoos cannot possibly replicate wild animals' habitats. American law requires only that animals in zoos be provided with enough space for them to stand up, lie down, turn around, and take a few steps. Animals that would normally roam or fly over vast territories are forced to exist in a world measured in square feet.

Zoos provide animals with few opportunities to engage in natural behavior and little mental stimulation. In these artificial, restricted conditions, animals may have a mental breakdown and develop "zoochosis"—a form of psychosis that can cause them to sway or pace continually, chew on their own limbs until they bleed, or pull out their own fur or

feathers. Some zoos dispense antidepressants and other drugs to curb such abnormal and self-destructive behavior.

And even though zoos claim to provide educational opportunities, most visitors spend only a short time at each display and afterward typically report, when asked, that they've learned nothing from the exhibits. Scientists, meanwhile, struggle to learn anything about natural behavior from animals that are forced to live in an unnatural setting.

As for conservation, zoos tend to favor exotic or popular animals—that draw crowds—rather than threatened or endangered local wildlife. Most animals housed in zoos are not endangered, and those that are will likely never be released into their rightful habitat. Most zoos' research is geared toward finding ways to breed and maintain more animals.

Forcing animals to live in cramped cages from birth until death just so that people can be distracted and amused for a few hours is ethically indefensible. •

—MARTA HOLMBERG  
People for the Ethical Treatment of Animals (PETA)

**Zoos are about entertainment, and the stars of the show are unwilling participants.**



NATIONAL



Police block protesters from entering the pipeline construction site in August.

# Standing Their Ground



Native Americans are protesting an oil pipeline that they say threatens their water supply—and their culture **BY MARY KATE FRANK**

ANALYZE THE ARTICLE

**T**housands of Native Americans had been gathered on the North Dakota prairie for months to protest a new oil pipeline when violence erupted last month: Some protesters broke down a wire fence and surged into the construction site, which they say runs through sacred Indian grounds. Security guards responded by using dogs and pepper spray to **disperse** them.

At issue is what's known as the Dakota Access pipeline, which, when complete, would carry nearly half a million barrels of oil a day from North Dakota's oil fields to Illinois (see map). From there, other pipelines would transport the oil to markets around the United States.

The company that owns the new pipeline, Energy Transfer Partners, says the \$3.7 billion project will pump money into local economies, create jobs, and help make the U.S. less dependent on oil from other countries. The

pipeline, which runs mostly on private land, is already half complete.

But many American Indians see the project as a major threat to both their environment and culture. Part of the pipeline's 1,170-mile route travels under the Missouri River, not far from the Standing Rock Sioux tribe's reservation, which straddles the North Dakota-South Dakota border. The reservation's 8,000 residents depend on the river for water. Tribal leaders fear that if the pipeline leaks or breaks, their water supply could be polluted. They say that building the pipeline would also

Native Americans at a pipeline protest in Cannon Ball, North Dakota, last month



Watch a video about a Native American pipeline protest.

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damage sacred sites—such as ancient burial grounds—that lie outside the reservation. Thousands of Native Americans from tribes all over the country have joined protests during the past few months just outside Cannon Ball, a town in south central North Dakota.

"This pipeline is going through huge swaths of ancestral land," Dean DePointis, the tribe's lawyer, told *The Washington Post*. "It would be like constructing a pipeline through Arlington Cemetery or under St. Patrick's Cathedral."

### A Symbolic Standoff

The Standing Rock Sioux say they weren't properly consulted before work on the pipeline began. In July, they sued the U.S. Army Corps of Engineers—the federal agency in charge of public building projects—saying

it failed to do **sufficient** environmental and cultural impact studies before approving the pipeline. The Army Corps says it met with Indian officials and tried to involve them more, but that they were uncooperative.

For its part, Energy Transfer Partners says the pipeline has safety features that can stop the flow of oil within minutes if a leak is **detected**, and that it poses no threat to the water supply. And the company says reviews of the pipeline's route found no sacred items.

Many Native Americans say the issue is bigger than what's happening in North Dakota. They say the current standoff is symbolic of the way Indians have been mistreated since the founding of the United States (see *key dates*).

"For far too long, our lands and resources were seen as disposable," says Brian Cladoosby, president of the National Congress of American Indians, a nonprofit group that represents the interests of more than 500 tribes. "All tribes have faced this in one form or another, and Standing Rock has become the symbol for many."

The Standing Rock Sioux's case against the Army Corps could take a year to be resolved. So in August, the tribe asked a court to temporarily halt construction at the area near their reservation. In September, a federal judge denied the tribe's request. The judge ruled that the tribe had been given time to express its views and hadn't shown that the project would harm them.

After the ruling, however, the federal government stepped in and ordered that construction of the pipeline be paused in the area under dispute while the Army Corps reviews its previous decisions.

In a joint statement, the Corps and other federal agencies called for "serious discussion on whether there should be nationwide reform with respect to considering tribes' views on these types of infrastructure projects."

In the meantime, construction on the Dakota Access pipeline continues elsewhere along the route. Energy Transfer Partners says it remains committed to completing the project in 2016.

Protesters aren't backing down either. They say they won't rest until the pipeline is canceled, and they're prepared to stay at the protest camp as long as necessary. "They'll be here for years," says Jana Clipp, a member of the Standing Rock Sioux. "They won't give this up." •

## KEY DATES U.S.-Native American Relations

### 1778 Treaties

The Continental Congress and the Delaware tribe of Ohio become allies against the British. It's the first of 389 treaties Congress makes with Indians over the next century.

### 1789 Constitution

The U.S. Constitution states that Indian land may not be seized except in wars authorized by Congress. The pledge is repeatedly violated.

### 1830 Indian Removal Act

President Andrew Jackson signs a law allowing him to negotiate relocation treaties with Indians east of the Mississippi. Many tribes are forcibly moved west.

### 1851 First Reservations

To make way for western migration of white settlers, Congress authorizes Indian reservations in the West. By the 1880s, about 60 have been built.

### 1890 Wounded Knee

Great Plains Indians resist whites migrating west. The Battle of Wounded Knee in South Dakota, where up to 300 Lakota Sioux Indians are massacred, is the last major military clash between the U.S. and Indians.

### 1934 'Indian New Deal'

Congress gives American Indians greater control over their land and internal affairs. Federal funds are allocated for education, land purchases, and tribal organization.

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**'That's a waste,'  
his father said  
of going to  
the U.S. for college.  
'Stay here!'**

—OSWALDO VALENCIA ROSADO, 27

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# MEXICO IMAGE vs. REALITY

With Donald Trump pledging to build a wall along the U.S.-Mexico border, a look at why fewer Mexicans are leaving home in search of opportunity

BY SEAN MCCOLLUM AND PATRICIA SMITH



**Peering through**  
the U.S.-Mexico border  
fence in Tijuana, Mexico

ANALYZE  
THE  
ARTICLE

OPPOSITE PAGE: ALCIA VERA/VEBETH PHOTO; THIS PAGE: JOHN MORDEQUITY IMAGES

In some ways, Oswaldo Valencia Rosado **embodies** the new Mexico. Twenty-five years ago, his grandfather ran a meat stall in the market of Campeche, a city on the Yucatan peninsula. Now Rosado, 27, is studying for a Ph.D. in computer programming in the central Mexican city of Puebla, with hopes of someday starting his own video game production company.

When Rosado graduated from high school, he thought about going to the United States, which generations of Mexicans have

seen as the promised land, to continue his education. But his dad advised him to build a career in Mexico instead.

"That's a waste," his father said of going to the U.S. "Stay here!"

Rosado did stay, and he's not alone. Mexico's improving economy is giving more Mexicans opportunities at home, and fewer are heading to the U.S. illegally in search of jobs. According to the Pew Research Center, the number of undocumented Mexicans in the U.S. dropped from 6.4 million in 2009 to 5.8 million

Watch a video about a Mexican teen and his hopes for his nation.

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in 2014, the latest year for which figures are available.

Even so, when many Americans think of Mexico, the first thing that comes to mind is illegal immigration. About half of the 11 million undocumented immigrants in the U.S. are Mexican, and the debate over how to deal with them is playing a big role in the 2016 presidential election. Republican candidate Donald Trump has made headlines for suggesting that undocumented immigrants from Mexico are criminals and promising, if elected, to build a huge wall to seal the entire 2,000-mile border—and to make Mexico pay for it. Hillary Clinton favors immigration reform that would provide those in the U.S. illegally with a path to citizenship.

The fact that Trump's campaign promise has resonated with many Americans is an indication of the frustration people feel with a broken immigration system, experts say. But they add that it's also based on a somewhat outdated vision of Mexico and its relationship with the U.S.

"Americans still have a picture of Mexico as a guy in a **sombrero** lying under a cactus, and Mexico hasn't been that for a long time," says Christopher Wilson, a Mexico expert



at the Wilson Center in Washington, D.C. "The country has transformed dramatically over the last 30 years."

Mexico has made huge progress in pulling people out of poverty. Almost half of Mexico's 31 million households are now considered middle class. High-skill jobs are becoming more plentiful, factories are churning out sophisticated products, and more families are adopting lifestyles that would be familiar to American families, with cellphones, new cars, and nice homes.

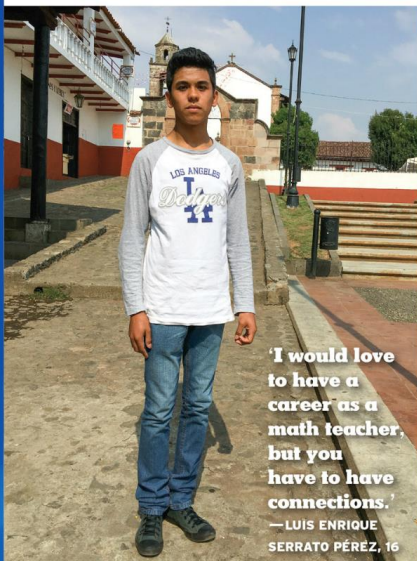
#### From Making T-shirts to Building Airplanes

The country has also begun to emerge as an international player in exports and **manufacturing**. In addition to growing a lot of the food Americans eat, Mexico produces cars, parts for the U.S. auto industry, electronics, appliances, and clothes. And Mexico has become one of the world's largest exporters of computer services like IT support, along with countries like India, the Philippines, and China. Overall, it now ranks as the 12th-largest export economy, and it's expected to continue to grow.

"Mexico has gone from a place where you make T-shirts and jeans to a place where you make cars and airplanes," says Wilson. "That's a tremendous evolution of the economy."

Mexico's growing economic clout has big implications for its northern neighbor, the United States. Mexico is the third-largest trading partner of the U.S. (after Canada and China). Since the start in 1994 of the North American Free Trade Agreement (NAFTA)—which opened up trade between the U.S., Mexico, and Canada—Mexico's exports have soared, with more than 80 percent going to the U.S. As a result of NAFTA, \$1.4 billion of trade is conducted back and forth between the two nations every day, according to Kimberly Breier, a Mexico expert at the Center for Strategic and International Studies in Washington, D.C.

Trump has called NAFTA "the single worst trade deal ever approved in this country." He says it caused the loss of millions of good-paying American manufacturing jobs when



**'I would love to have a career as a math teacher, but you have to have connections.'**  
—LUIS ENRIQUE SERRATO PÉREZ, 16

10 The New York Times UPFRONT • UPFRONTMAGAZINE.COM

American companies moved those jobs to Mexico, where wages are much lower. Trump says he will pull out of the deal "in a split second" if its terms aren't made more favorable to the U.S. Clinton has said the U.S. needs to renegotiate NAFTA to better protect American workers, but she supports free trade because she believes it expands U.S. exports and encourages economic development.

#### Cartels & Corruption

Given the harsh **rhetoric** about Mexico in the campaign, it's no surprise that Mexicans have been following it closely. Many were outraged when Trump visited Mexico in late August to meet with President Enrique Peña Nieto, who opposes Trump's plan to build a border wall.

"The fact that a lot of Americans are supporting him is what is worrying to me," says Isabela Di Le Court Mebarak, a 20-year-old college student in Mexico City.

"The fact that America is attempting to stop Mexican immigration, I understand that," she adds. "I understand as well that much of the hard work done in the U.S. was done by Mexican workers."

Despite Mexico's substantial progress in creating economic opportunity at home, the country faces major challenges, including persistent poverty that's still driving some Mexicans to cross the border illegally. Of Mexico's 122 million people, 55 million—about 46 percent—live in poverty.

"The middle class has grown, but people at the bottom in terms of income and education haven't reaped the benefits," says Lucrecia Santibañez, a professor at Claremont Graduate University in Los Angeles.

Powerful drug cartels run a \$30 billion illegal drug trade, with most of those drugs going to customers in the United States. Drug cartels also control large **swaths** of territory, routinely paying off police and government officials to look the other way. At all levels of government and business, corruption is a persistent problem. And Mexico's public education system is in need of major reform.

Only 45 percent of Mexicans finish high school on time, compared with 82 percent of American kids. Although elementary schools exist in every village, for some students, continuing beyond sixth grade requires traveling long distances. The costs of uniforms, school supplies, and transportation strain poor families, and many schools lack computers and even basic supplies like paper.

Teacher quality is often poor. And there's no government financial aid for college, no matter how promising a student's academic performance.



**'Much of the hard work done in the U.S. was done by Mexican workers.'**  
—ISABELA DI LE COURT MEBARAK, 20

**81%**  
Percentage of Mexico's exports that go to the U.S.

**\$17,500**  
Per capita GDP in Mexico, compared with \$55,800 in the U.S.

**\$1.4 billion**  
Value of trade conducted daily between the U.S. and Mexico

That's the problem facing Luis Enrique Serrato Pérez, a 16-year-old from the southern province of Michoacán. Luis Enrique is in his third year of high school in the village of Santa Clara del Cobre. Math is his favorite subject, and he receives top grades in his class of 37 students.

"I would love to have a career as a math teacher," he says. "But you have to have connections." And money. His father, a taxi driver, probably won't earn enough for Luis Enrique to pursue the degree he would need or to pay the necessary bribes to smooth his way to a teaching job.

Luis Enrique still remembers the day two years ago when his father, who had lost his job, left for Tijuana, where he planned to illegally cross into the U.S. His dad's sister and her family were living illegally in Los Angeles and the prospect of American jobs beckoned. But his father's plan for crossing the border fell apart, and he returned home.

Stepped-up U.S. border patrols and an improving Mexican economy have convinced many Mexicans to stay, and most experts expect the number of undocumented Mexicans in the U.S. to continue to decline if Mexico's economy keeps growing.

#### 'On the Right Track'

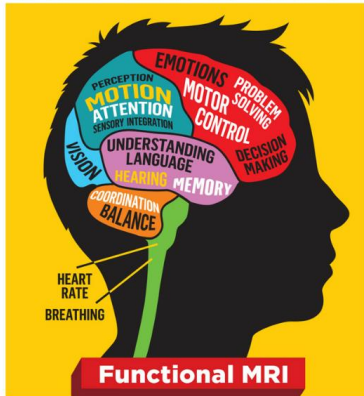
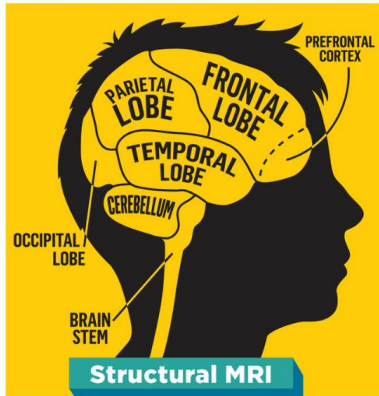
But for that to happen, Mexico will have to find a way for young people like Luis Enrique to succeed. Oswaldo Valencia Rosado, the computer science graduate student, is glad he stayed in Mexico to pursue his dreams, but he's aware that not all Mexicans are as lucky as he's been.

"Big cities have seen a quick transition and a lot of new opportunities. They have services comparable to developed nations," he says. "But about half the country doesn't have access to the new opportunities."

Still, Rosado sees reason for optimism, and he has a message for Americans who believe otherwise. "We are on the right track," he says. •



# MAPPING THE BRAIN



## How technology is shaping what we know about the brain

Your brain has an estimated 85 billion *neurons*<sup>\*</sup> (nerve cells) that send signals with speeds of up to 270 miles per hour. Through neurons, your brain controls every move you make and every thought you think.

We know this, and much more, from advancements in *neuroscience*—the study of the nervous system, including the brain. Neuroscientists use brain-imaging tools—**MRI**, **fMRI**, and **PET**—to study the brain's structures and functions.

With these technologies, neuroscientists have

mapped out which brain regions control different bodily functions. They've identified the brain areas that control critical thinking, movement, and breathing, as well as feelings like pleasure, sadness, and fear. They've also learned what happens to the brain as we age, as well as the effects of injury and of using drugs.

But there is still a lot to figure out. Read on to learn how these technologies work and how they are helping to teach us about ourselves, now and in the future.

<sup>\*</sup>The prefix *neuro-* signals a word related to the brain, nerves, or the nervous system—such as *neuron* (a nerve cell).

## The Future of Brain Research: The ABCD Study<sup>1</sup>

**We know the brain changes a lot during adolescence. But does sleeplessness or stress affect brain development? Does playing sports? Are there lasting changes to the brain that result from vaping e-cigarettes?**

To answer these questions and many more, neuroscientists will begin a study in 2016 that researches 10,000 9- to 10-year-olds for a period of 10 years. The researchers will use MRI and fMRI to track brain structure and function in the participants, as well as surveys

and games to track the participants' behaviors. In the largest study of its kind, scientists will be able to look for patterns in how teens' lives affect their brains, and how teens' brains affect their lives. This information can be used to help future generations live better, healthier lives.

<sup>1</sup>Adolescent Brain and Cognitive Development Study

## Structural MRI

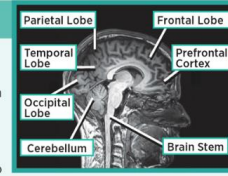
Structural Magnetic Resonance Imaging

### WHAT IT SHOWS

A detailed image of the structure (size and shape) of tissues, organs, and bones. Also shows the presence of disease.

### HOW IT WORKS

A person lies still in an MRI machine, which surrounds the body with a magnetic field and emits radio waves. Hydrogen atoms in the water of tissues and bones absorb and then release the energy from the radio waves. A computer maps and measures these changes to create an image. Changes in the size of tissues (such as from diseases like cancer that cause tumors) can increase the amount of water in different parts of the body, which can be detected by MRI scans.



### SOMETHING WE'VE LEARNED

MRI scans of the brain have shown that people who have been using drugs for a long time have a smaller prefrontal cortex than people who have not been using drugs. The prefrontal cortex is the area where decision making occurs.

## Functional MRI (fMRI)

Functional Magnetic Resonance Imaging

### WHAT IT SHOWS

Areas of the brain that are active during a task.

### HOW IT WORKS

A person lies in an MRI machine while doing an activity such as looking at an image, hearing a sound, laughing at something funny, or completing a puzzle.

The areas of the brain that are active during the behavior have increases in blood flow and blood oxygen levels. A computer analyzes these changes to map brain function.



The color areas in the fMRI above show brain regions active during laughter.

### SOMETHING WE'VE LEARNED

In studies where adolescents played a game to earn rewards, their brain scans showed higher activity in the area of the brain that processes motivation and pleasure (the nucleus accumbens<sup>2</sup>) compared with the area of the brain that guides thoughtful decision making (the prefrontal cortex). Scientists think this imbalance in activated brain regions may lead teens to focus more on the possible rewards of a decision than on any drawbacks. This could increase a person's risk for using drugs.

## PET Positron Emission Tomography

### WHAT IT SHOWS

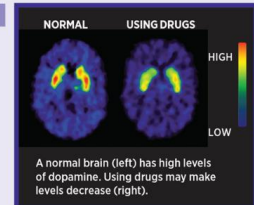
The brain and body at the cellular level.

### HOW IT WORKS

PET scans use radioactive chemicals, called radiotracers, that are injected into the body. The radiotracers go to different areas depending on the chemical that is used. The PET machine detects the radiotracers and computer programs use colors to show their location.

### SOMETHING WE'VE LEARNED

Dopamine is the brain chemical that helps us feel pleasure. By following radiotracers for dopamine receptors, PET scans have shown that using drugs heavily reduces the number of these receptors. Fewer receptors indicates less dopamine activity in the brain. This finding helps explain why people addicted to drugs experience less pleasure from everyday activities. They begin



to crave the drug to get their dopamine activity back up to normal.

<sup>2</sup>The nucleus accumbens is a brain structure located at the base of the frontal lobe deep inside the brain. It does not appear on the MRI scan shown on this page.

**More Info:** For additional facts about the brain, visit [scholastic.com/headsup](http://scholastic.com/headsup) and [teens.drugabuse.gov](http://teens.drugabuse.gov).

Images clockwise from top left: Cerebrum/fMRI; © 2013 Oxford University Press, Brookhaven National Laboratory background, Sebastian Keintz/Shutterstock





Colin Kaepernick (at right, kneeling), joined by teammate Eric Reid in San Diego on September 12, during Kaepernick's third national anthem protest

# Star-Spangled PROTEST

Why an athlete's refusal to stand for the national anthem has sparked such intense debate

BY CARL STOFFERS

When the national anthem played before an NFL preseason game in August, San Francisco 49ers quarterback Colin Kaepernick remained seated on the sidelines instead of standing like almost everyone else in the stadium.

Kaepernick expected some criticism for his protest—carried out, he said, to call attention to police brutality and racial injustice in the U.S.—but what followed was a firestorm. Many accused him of thumbing his nose at America by not joining in a patriotic ritual that's long been a fixture at sporting events.

"There's ways to make change w/o disrespecting & bringing shame to the very country & family who afforded you so many blessings," read one of thou-

sands of angry tweets. It came from Kaepernick's biological mother, Heidi Russo, who gave him up for adoption as a child. Others praised him for taking a principled stand, and even President Obama seemed to sympathize.

"I think he cares about some real, legitimate issues that have to be talked about," Obama said during a press conference while visiting China.

The debate over Kaepernick's actions raises two questions: How did the national anthem become so integral to organized sports, and why do Americans have such strong feelings about it?

"It's part of our national religion to believe in the flag and Betsy Ross and the national anthem," says Orin Starn,

ANALYZE THE ARTICLE

professor of cultural anthropology at Duke University in North Carolina. "When these national symbols are called into question, it makes people angry."

## The War of 1812

Francis Scott Key, a lawyer from Maryland, wrote "The Star-Spangled Banner" on Sept. 14, 1814, after witnessing the bombardment of Fort Mifflin in Baltimore by British ships during the War of 1812. Key was inspired by the tattered American flag that remained flying above the fort during the battle, and wrote a poem about it. The poem was later set to the tune of a popular English song and became the national anthem by an act of Congress in 1931.

It was first performed at baseball games in the mid-1800s, and it became more widespread in baseball in the

period of intense patriotism that swept the nation during World War II (1939-45).

Pat Courtney, a spokesman for Major League Baseball, said that the national anthem has been performed before all MLB games since 1942 and that "it remains an important tradition that has great meaning for our fans."

Other sports also incorporated the song into their pregame rituals. Today, all four major sports leagues ask fans and players to stand and remove their hats while the anthem plays. But no league does it with more pomp and circumstance than the NFL, which often stages elaborate displays featuring a giant flag and jet-fighter flyovers.

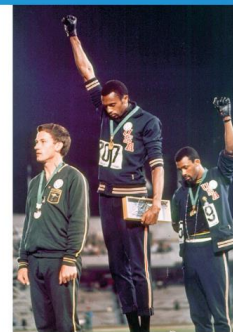
## An American Tradition

Most other countries don't have similar rituals. For example, national anthems aren't typically played before Japanese baseball games or German hockey games. Why the difference? According to Starn, it probably lies in America's history.

Unlike most nations, the U.S. wasn't created on a common platform of religion or ancestry. Instead, Americans are bound by ideas and concepts—that all people are created equal, for example—and something that represents those ideas, like an anthem, can come to seem vitally important, even sacred.

"We're the most sports-obsessed society in the history of the world, and we're also a nation that's obsessed with patriotism and pride in identity," Starn says. "You can't be a politician who doesn't wear a flag lapel pin, and you can't go to an NFL game and not hear the anthem."

Kaepernick isn't the first athlete to be criticized for slighting the anthem, whether intentionally or not. In 1968, U.S. sprinters Tommie Smith and John Carlos were expelled from the Olympics in Mexico City for raising gloved fists in a "black power" salute while on the medal stand during the playing of the national anthem. Mahmoud Abdul-Rauf of the Denver Nuggets was suspended by the NBA in 1996 for refusing to stand during the anthem. And at the Rio Olympics this summer, gold medal gymnast Gabby



1968 Olympics: American sprinters Tommie Smith (center) and John Carlos (right)

Douglas was lambasted on social media for not placing her hand over her heart while the anthem played—even after she explained that as a member of a military family, she had learned to stand with arms at her sides.

Given how strongly many Americans feel about the anthem, it's not surprising that protests like Kaepernick's have been

relatively rare. When he repeated the protest during a second preseason game, however, he was joined by a teammate. And during the first week of the NFL season, players from several teams chose to kneel or raise fists during the anthem. In early September, Megan Rapinoe, an American soccer player, knelt during the anthem before a women's pro soccer league game in support of Kaepernick.

Following his second protest, the 49ers announced that Kaepernick had lost the starting quarterback job to Blaine Gabbert. The team said the decision was based solely on performance, but others wondered whether Kaepernick had been harmed by the outcry over his actions.

"It's the step off the cliff that most athletes aren't going to take," says Starn. "You might have LeBron James wearing a Black Lives Matter shirt, but the national anthem has always seemed sacred, and you would just put your hand over your heart and stand up like everyone else." •

With reporting by Sam Borden of The Times.

## The National Anthem & Slavery

Does "The Star-Spangled Banner" have a pro-slavery message?

One of the debates fueled by Colin Kaepernick's protest involves the nature of "The Star-Spangled Banner" itself: Does it celebrate slavery? The rarely sung third stanza of the poem includes the line: "No refuge could save the hireling and slave/From the terror of flight or the gloom of the grave."\*

The lyric refers to Britain's promise of freedom to escaped U.S. slaves who fought for England during the War of 1812. Hundreds joined a regiment called the Colonial Marines that fought in several battles, according to Mark Clague, a musicologist at the University of Michigan who's writing a book about the anthem.

Some say that Francis Scott Key's words express glee over the death of slaves who sought freedom by joining

the enemy. The anthem "literally celebrates the murder of African-Americans," wrote Jon Schwarz, a columnist for *The Intercept*, in discussing Kaepernick's protest.

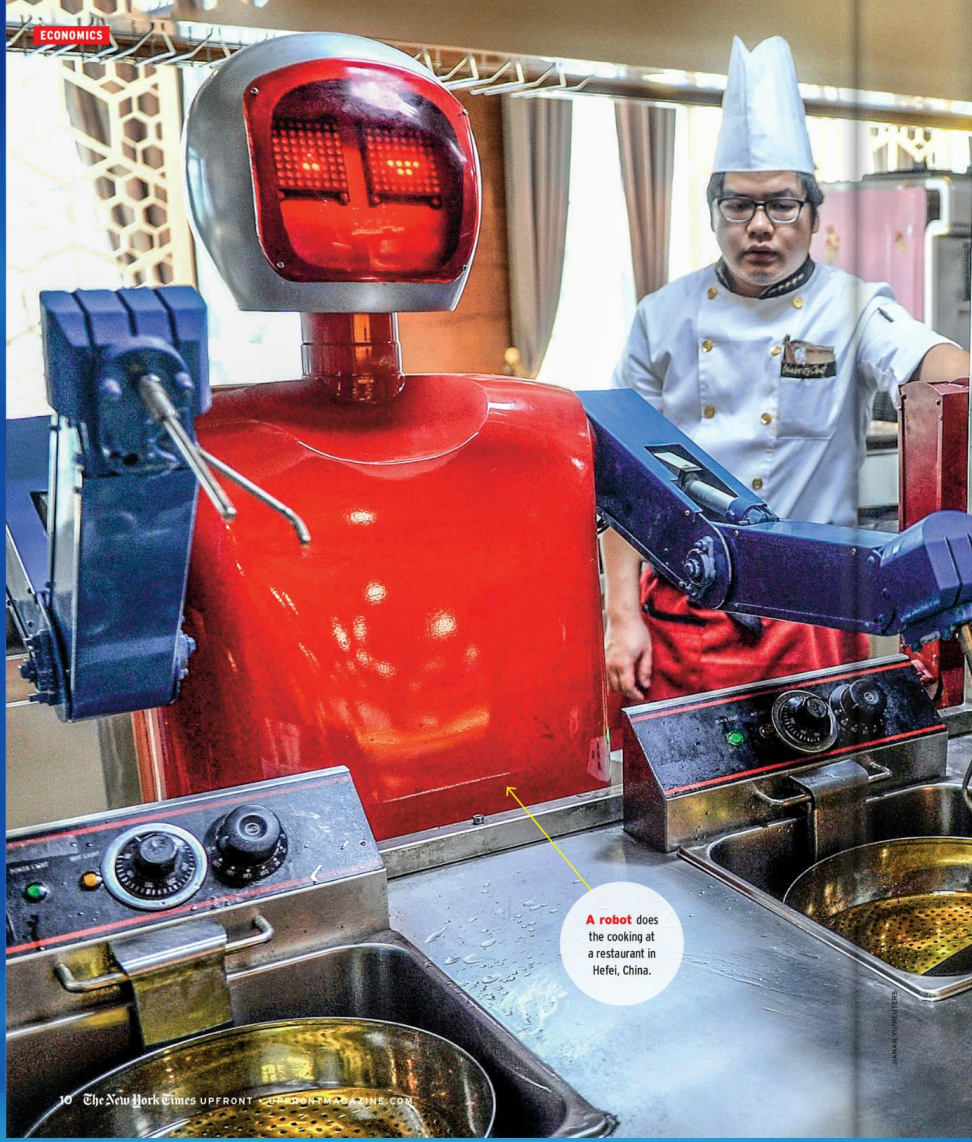
Others say that oversimplifies history. They point to Key's complicated relationship with blacks—he was a slave owner, but as a lawyer he voluntarily defended slaves in court—as evidence that there's more to the lyric, and the man.

"There were blacks and whites fighting on both sides," says Clague. "Key's lyric celebrates the heroism of the escaped slaves and other African-Americans who were on the American side. I don't think it's racist or makes a distinction on race. I think it vilifies the enemy, which includes escaped slaves, Colonial Marines, and British mercenaries. It's about the enemy."

\*By the early 20th century, most sheet music omitted the entire third stanza of "The Star-Spangled Banner" out of fear of offending Britain, which had become a strong U.S. ally. Only the first stanza is commonly sung today.

Watch a video of President Obama's reaction to Kaepernick's protest.





# WILL A ROBOT TAKE YOUR JOB?

ANALYZE THE ARTICLE

Robots and computers are learning to do many jobs held by humans. What does that mean for you? BY ERIK SHERMAN & REBECCA ZISSOU

**T**he staffers at the Henn-na Hotel near Nagasaki, Japan, are always friendly, report to work on time, and never call in sick. But they aren't ordinary employees—they're robots. At the world's first hotel staffed almost entirely by machines, human-like robots chat with guests, carry customers' luggage, and deliver room service.

The hotel, which opened in 2015, may sound like fun, but it's no laughing matter for the people who were passed over for jobs given to the robots. And those people are about to have a lot of company—not only in Japan but in the United States. According to researchers at Oxford University in England, nearly half of all U.S. jobs—including 70 percent of low-skilled professions—are at risk of being replaced by technology within the next two decades (see graphic, p. 13).

Worldwide, many hospitals are already using robots to run lab tests and help **diagnose** patients. Restaurants are relying on computers to take orders and prepare food. And in recent years, many bank tellers, tollbooth operators, cashiers, tax preparers, and travel agents have been replaced by machines.

But as robots take on more work, what will happen to human workers? Historically, technological advances have created more jobs than they've eliminated. But today's sophisticated automation—including driverless cars and robots that can read facial expressions—may prove to be a

Watch a video about an underwater humanoid robot.

A robot does the cooking at a restaurant in Hefei, China.



bigger threat to jobs than the technology of previous decades.

"Machines are learning to do human things that they never, ever could do before," says Andrew McAfee, a scientist at the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts.

### The Industrial Revolution

The struggle between technology and jobs has been going on for centuries. In 1589, Queen Elizabeth I of England refused to give inventor William Lee a patent for a machine that would have replaced hand knitting. She worried that the device would eliminate the need for human workers and lead to widespread unemployment and poverty.

During the Industrial Revolution in the 18th and 19th centuries, the rise of factories and power-driven machines eventually did eliminate the need for many skilled laborers who worked by hand, including carpenters and weavers. But factories also created new job opportunities, especially for unskilled workers. For decades, millions of people worked in factories on assembly lines, producing everything from cars to electronics.

But beginning in the 1960s, many factory workers began to be replaced by machines that could perform the same tasks faster and cheaper.

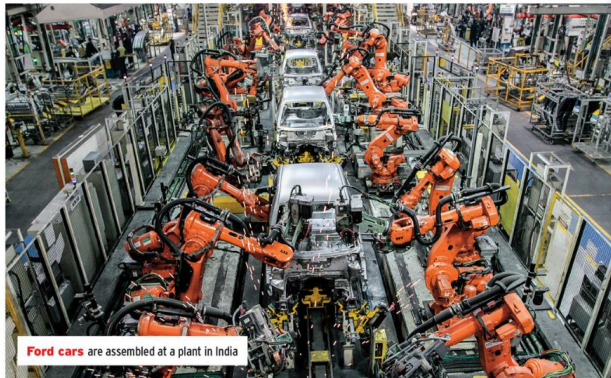
Today, low-skilled jobs like janitor and waiter are still the ones that are most threatened by technology. And companies like Tesla, Google, and Uber are developing driverless cars that could one day make cab or bus drivers a thing of the past. Even tractor-trailer drivers could become obsolete. German automaker Daimler's Inspiration Truck, a self-driving 18-wheeler, will soon hit the road in Nevada.



A receptionist robot at the Henn-na Hotel in Japan



Robots move pallets of merchandise around an Amazon warehouse in California



Ford cars are assembled at a plant in India

**'The jobs that the robots leave for humans will be those that require thought and knowledge.'**

But increasingly, complex jobs across many industries are at risk too. Many law firms, for example, are using computers to draft contracts and search through documents, cutting down on the need for legal assistants. In hospitals, machines are being used to administer anesthesia for certain medical procedures. Robots are even performing some surgeries.

Despite the threat to some industries, however, technology is also creating new jobs. But they will require a lot of training and, in many cases, a college degree, according to technology writer Howard Rheingold.

"The jobs that the robots will leave for humans will be those that require thought and knowledge," he told the Pew Research Center. "In other words, only the best-educated humans will [be able to] compete with machines."

What makes things more challenging, according to Tom Standage, digital editor for *The Economist*, is that technology is now advancing at a faster pace than at any other point in history.

"Previous technological revolutions happened much more slowly," he told Pew, "so people had longer to retrain" for new jobs.

### No Sick Days

Why are so many industries replacing human workers with machines? For starters, robots are able to perform certain tasks faster and more efficiently than humans. Machines never get sick, don't take time off, and don't need to be paid. Often, it's cheaper for businesses to use technology than to hire enough human workers to do the same jobs.

The National Institutes of Health, for example, is using several robotic systems to run lab tests. A single robot can run 3 million tests every week. A person would need to work eight hours a day, seven days a week, for 12 years to run that many tests.

Aside from their speed, robots can put themselves in dangerous situations so that people can remain out of harm's way. Experts say that sophisticated robots will soon serve as first responders following disasters, like earthquakes, floods, and wildfires.

Robots might even be used in battle. Former U.S. Army General Robert Cone has predicted that robots could replace thousands of soldiers within the next few years, which could save many lives.



Self-driving cars are being developed by Tesla, Google, and Uber.

## ROBOTS FOR HIRE

The chances that various professions will be automated within 20 years

99%  
TELEMARKETER



68%  
MAIL CARRIER



23%  
FINANCIAL ANALYST



94%  
WAITER



SOURCE: THE FUTURE OF EMPLOYMENT, OXFORD UNIVERSITY

Another upside is that technology is creating new jobs that didn't exist even a decade ago, like app developer and social media manager. Tech companies like Google, Apple, and Facebook employ millions of people. As long as robots are part of the workforce, there will also be a need for people to design, build, and maintain them.

In a less direct way, too, technology can improve the economy and spur job growth. By creating products more efficiently, for example, machines enable companies to lower their prices. When goods are more affordable, demand for them can increase, thereby requiring companies to hire more people to meet that demand.

### How to Compete

Since machines are set to play an even bigger role in employment in the coming years, experts say that job seekers will need to be well-versed in technology. To make sure that young people today will be able to compete in the future job market, President Obama has called for a \$3 billion investment in STEM (science, technology, engineering, and math) education.

But does that mean only people in STEM fields will have a job in the future economy? Not necessarily, experts say. While demand will continue to rise for people who can write computer code and build robots, many other types of jobs will be necessary too. For one thing, machines don't understand emotion and are poor at problem solving, critical thinking, and creativity. Most robots aren't yet adaptable or versatile.

That means that a scientist developing robotics systems might have a safe job, but so would a novelist, plumber, and teacher. (Japan and Singapore have experimented with robot teachers, however, and students at the Georgia Institute of Technology were recently fooled by a computer program pretending to be a human during an online course.) Ultimately, many experts say, the high-tech machines being developed today will help us far more than they'll hurt us.

"Technology is not something to be afraid of—just the opposite," says Ken Goldberg, a robotics expert at the University of California, Berkeley. "Robots are being designed to inspire and enhance humans, not eliminate us." •

OCTOBER 10, 2016 13



TIMES PAST

# Are We Heading Toward a New COLD WAR?

ANALYZE THE ARTICLE

Today's tensions between the U.S. and Russia under Vladimir Putin are reminiscent of America's standoff with the Soviet Union

BY CARL STOFFERS



**Stare down:** President Obama and Russian President Vladimir Putin have tangled over Syria, Crimea, and human rights.

world, and the U.S. and its allies were trying to stop them.

Then, after decades of staring each other down, something unexpected happened: The Soviet threat went away. In 1989, protesters in Germany tore down the Berlin Wall, the symbol of the Iron Curtain that had divided people under Communist and democratic rule in Europe. And two years later, in 1991, the Soviet Union dissolved, leaving the U.S. as the world's sole superpower.

But today, 25 years since the Soviet collapse, the hope that democracy and freedom would prevail in the 15 former Soviet republics has largely evaporated. That's especially true for Russia, by far the largest and most powerful of the former Soviet republics. And the fear today is that the friction between the U.S. and Russia under President Vladimir Putin could result in a new standoff reminiscent of the Cold War.

"Putin sincerely believes that the end of the Cold War was a source of humiliation and misery for Russia and that the duty of any Russian leader is to erase that humiliation and restore Russia to some of the superpower glory of the Soviet Union," says Leon Aron, Director of Russian Studies at the American Enterprise Institute in Washington, D.C.

The original Cold War began in the embers of World War II. While the U.S. and the Soviet Union had been allies—along with France and Britain—in the war against Nazi Germany,

Imagine waking up every day and fearing you might be wiped out by a nuclear bomb.

For almost a half century after World War II (1939-45), Americans and much of the world lived in legitimate fear of **annihilation**. The two Cold War **superpowers**—the United States and the Soviet Union—had built up arsenals of nuclear weapons and on more than one occasion had come close to using them. The stakes were high: The Soviets and their allies were trying to spread Communism around the

Download President George H.W. Bush's speech on the Soviet Union's demise.

the partnership disintegrated with Adolf Hitler's defeat. With Europe in ruins, Soviet troops occupied much of Eastern Europe and half of Germany. Soviet leader Joseph Stalin soon installed Communist puppet governments that answered to Moscow. While the U.S., Britain, and France sought to rebuild Europe, Stalin declared that the Soviets were devoted to the destruction of the capitalist West. Former British Prime Minister Winston Churchill responded by famously proclaiming in a 1946 speech that an "iron curtain has descended across the continent."

Stalin, one of history's most brutal dictators, governed the Soviet Union ruthlessly, jailing or executing political **dissidents**, and forbidding free elections. At least 40 million people died from famine, persecution, and mass executions under his rule.

When the Soviets tested an atomic bomb in 1949—joining the U.S. as the world's only nuclear powers—tensions greatly escalated and so did the threat that the Cold War would turn hot. The two sides began a frantic arms race, eventually building 70,000 nuclear weapons. Beginning in the 1950s, American schools taught students to "duck and cover" under their desks if they saw a nuclear bomb's bright flash (which wouldn't have helped much in the face of a real nuclear attack), and issued dog tags so their bodies could be identified.

"There was a real risk of things getting out of control and real miscalculations being made," says Fiona Hill, a Russia scholar at the Brookings Institution in Washington, D.C. "The terror of it was very real."

### 'We Will Bury You'

The U.S. and the Soviet Union never declared war on each other, but in a series of "proxy wars," they aided opposite sides as the struggle between Communism and democracy played out globally. In the Korean War (1950-53), North Korea's forces, backed by the Soviets and Communist China, battled U.S. and South Korean troops to a bloody stalemate. It settled nothing, and the Cold War played on. In 1956, Soviet Premier Nikita Khrushchev, who had taken power after Stalin's death, casually told Western diplomats, "History is on our side. We will bury you."

By the 1970s, many Americans, and much of the world, wondered if he could be right: Soviet-backed forces had defeated American forces in Vietnam, the U.S. economy was suffering from soaring inflation, and a criminal scandal known as Watergate had forced President Richard Nixon to resign in 1974. But Khrushchev was wrong.

America pulled out of its tailspin by the 1980s. In contrast, the Soviet leadership steered the U.S.S.R. toward oblivion. The **regime** imprisoned dissidents, crushed democratic movements in Czechoslovakia and Poland, and invaded neighboring Afghanistan in 1979 to prop up the Communist government against a growing insurgency. The Soviet Union began losing



Soviet missiles are paraded through Moscow's Red Square in 1957 for the 40th anniversary of the Russian Revolution (above); students during a "duck and cover" nuclear attack drill in New York City, 1962 (below).



BETHANNI GETTY IMAGES/GETTY IMAGES (TOP); ANDY RYAN (BOTTOM)



# Timeline THE COLD WAR



**British Prime Minister** Winston Churchill (left), U.S. President Franklin D. Roosevelt (center), and Russian dictator Joseph Stalin



## 1945-47

### Europe Divided

U.S., British, and Soviet leaders plan for postwar Europe at the Yalta Conference in 1945. Two years later, after the Soviets install Communist regimes across Eastern Europe, the Truman Doctrine (named for President Harry Truman) says the U.S. will protect nations from Communist aggression.

## 1948-49

### Berlin Airlift

In June 1948, the Soviet Union blockades democratic West Berlin. The U.S. and its allies fly in supplies daily to keep the city from starving. The Soviets lift the blockade in May 1949.

## 1950-53

### The Korean War

Communist North Korea invades South Korea in 1950. U.N. forces, led by the U.S., defend South Korea; China backs the North. The war ends in a stalemate, with 36,000 Americans killed.

## 1957

### Sputnik

The Soviets send the first satellite into orbit, catching the U.S. off guard and launching the "space race." The U.S. ultimately "wins" when it lands the first men on the moon in July 1969.



## 1961

### Berlin Wall

To prevent its people from leaving, Communist East Germany builds a wall to separate itself from democratic West Germany and Western Europe.

## 1962

### Cuban Missile Crisis

U.S. spy planes discover Soviet-built nuclear sites in Cuba. After a tense 13-day standoff with President John F. Kennedy, the Soviets remove the missiles.

## 1979

### Afghan Invasion

Soviet troops invade Afghanistan. Aided by the U.S., Islamic fighters wage a 10-year guerrilla war against the Soviets, who withdraw in 1989.

## 1989/1991

### Soviet Collapse

A bankrupt Soviet economy ultimately leads to the tearing down of the Berlin Wall in 1989. Two years later, the Soviet Union formally disbands.

## TODAY

### New Aggression

Russia annexes Crimea in 2014. Since 2015, it has backed President Bashar Al-Assad in Syria's civil war, opposing the U.S. Is a new Cold War ahead?



**Russian soldiers** in Crimea, 2016

support worldwide. Afghanistan became the Soviets' Vietnam. Backed by U.S. weapons and expertise, Muslims from Pakistan and the Middle East who viewed the Soviet invaders as infidels rushed into Afghanistan, killing more than 14,000 Soviet troops and wounding 50,000 more before Moscow withdrew in 1989.

At the same time, a dying Soviet economy was sinking under incompetent government control. State-run industries were no help, turning out broken tractors and allowing crops to rot in the fields for lack of trucks to get them to market. Bureaucrats decided what to manufacture, and people waited years to buy a car or get a phone—or they bribed someone to jump the line.

### 'Tear Down This Wall!'

In 1985, an energetic reformer named Mikhail Gorbachev took power. Sensing opportunity, President Ronald Reagan traveled in 1987 to Berlin, which had been divided for two decades by the Berlin Wall that separated Communist East Germany from democratic West Germany. Reagan stood on the West German side and declared: "Mr. Gorbachev, tear down this wall!" Gorbachev moved to thaw relations with the West, relaxed curbs on what people could say and read with a policy known as *glasnost*—or openness—and tried to fix the Soviet Union's **calcified** economy with free-market reforms known as *perestroika*.

"I still entertained illusions that the system could be reformed," he told *Time* magazine in 2003.

But it was too late. Communist diehards sabotaged Gorbachev's economic efforts, and daily life grew even worse.

"The chains were gone, but so was the food," *New York Times* reporter Serge Schmemmann wrote in 1991 from Moscow.

The end began in 1989, when Eastern Europe's puppet states allowed free elections and opened their borders. In Berlin, East Germany opened the gates to the Berlin Wall, and its citizens streamed out.

Russians soon began staging democracy protests too, and Gorbachev made more reforms, including allowing political parties other than the Communist Party. Then, in December 1991, Russia, the heart of the Soviet empire, proclaimed its independence from the Soviet Union, and Gorbachev soon bowed to the inevitable. On Christmas Day, the crimson hammer-and-sickle Soviet flag was lowered at the Kremlin, the seat of the government in Moscow. The white, blue, and red Russian tricolor took its place. The Soviet Union was no more. But what would replace it?

The peaceful world some envisioned, presided over by a benevolent America, never came to pass. Without a common Soviet enemy, many nations that once aligned themselves with the U.S. drifted away. The U.S. also became a prime target for the rage of groups left out of the new global order. In Afghanistan, the same Islamic militants the U.S. trained and equipped to defeat the Soviet army took power and turned that broken nation into a haven for Al Qaeda, the terrorist group behind the 9/11 attacks. Osama bin Laden, one of the young Muslims who fought the Soviets, became Al Qaeda's leader.

The fortunes of the former Soviet republics and satellite states have been mixed. Some of the eastern European nations that escaped Soviet control, like Poland, Hungary, and the Czech Republic, are democracies with prospering economies. But many of the Soviet Union's former republics, especially

those in Central Asia, still have repressive governments.

Russia flirted with democracy in the 1990s. But it slipped back to strongman rule when Vladimir Putin—a former spy for the KGB, the Soviet Union's brutal intelligence agency—took office in 1999. Putin, who has ruled Russia ever since, has sought to return the nation to what he sees as its rightful place as a superpower.

### A New Strongman

In 2008, Putin's government intervened in a war in the former Soviet republic of Georgia, and in 2014, it annexed the Ukrainian peninsula of Crimea. Since 2015, Russia has taken an increasingly active and controversial role in the Syrian civil war by backing President Bashar Al-Assad's forces. It has supplied them with Russian troops and weapons, and has orchestrated airstrikes against rebel groups, some of which are supported by the U.S.

Partly because of Russia's aggressive foreign policy, tensions with the U.S. have increased, even after President Obama expressed a desire to "reset" relations in 2009. Obama and Putin's personal relations have been icy, at best (*see photo, p. 18*). Meanwhile, Republican presidential candidate Donald Trump has repeatedly praised Putin, calling him a strong leader, "far more than our president has been a leader," and even invited Russia to hack the emails of rival Hillary Clinton. (Trump later said he was joking.)

In Russia itself, some things have improved under Putin.

In the early days especially, oil money boosted the economy enabling many Russians to enjoy goods and services they could only have dreamed of in the Soviet Union. (The recent crash in oil prices has hit the country's economy hard.)

At the same time, government corruption has been a problem under Putin. He's given most of the big business contracts to his friends, many of whom are now billionaires (also known as "plutocrats"). And Putin has cracked down on civil liberties. There's virtually no free press in Russia, elections are rigged, and dissidents are sometimes jailed. In 2012, members of an all-female punk rock group were put in jail for nearly two years for staging a protest against Putin in a Moscow cathedral. In some cases, dissidents are even murdered—reminding some people of the old Soviet days.

"There's a sense of helplessness, which Putin exploits," says Aron of the American Enterprise Institute.

Alex Cooley, a Russia expert at Columbia University in New York, agrees, and he thinks that helplessness will make it unlikely for real democracy to come to Russia anytime soon. "I don't think we'll have a moment like 1991 again unless there is some sort of really seismic geopolitical event or a complete economic collapse," says Cooley. "The early 1990s was the window, and it wasn't taken." •

With reporting by Michael Winsor of *The New York Times*.





## Debate

# Should Birthright Citizenship Be Abolished?

**T**he 14th Amendment to the Constitution has generally been understood to mean that all people born in the United States are automatically American citizens, regardless of whether their parents are citizens or even whether they're living in the U.S. legally or illegally. But giving U.S.-born children of undocumented immigrants all the rights and privileges of citizenship at birth has become a subject of controversy, and Republican presidential candidate Donald Trump has made it a campaign issue this year. He's said that ending "birthright citizenship" would discourage illegal immigration.

Analyze the arguments. Cast your vote and see instant results.

**11.3 million**

Estimated number of undocumented immigrants living in the U.S.

SOURCE: PEW RESEARCH CENTER

**295,000**

Number of babies born in the U.S. to undocumented immigrant parents in 2013. That's about 8 percent of all U.S. births that year.

SOURCE: PEW RESEARCH CENTER

*"All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States."*

—FROM THE 14TH AMENDMENT



**37%**

Percentage of Americans who favor changing the Constitution to abolish birthright citizenship.

SOURCE: PEW RESEARCH CENTER, 2015 POLL

**YES** Every 93 seconds, a baby is born in the United States to immigrant parents who are here illegally. Currently, those babies are automatically U.S. citizens, with all the financial, legal, and social benefits of being an American. This gives their parents the opportunity to cash in on many of those benefits—all of which are paid for by American taxpayers.

This loophole to gain U.S. citizenship—and its related benefits—has also encouraged foreigners to have babies on U.S. soil instead of going through the legal immigration process. There's even a growing industry in China catering to wealthy women who come to the U.S. to give birth.

This rampant cycle is facilitated by a misinterpretation of the 14th Amendment, which states, "All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States." I believe the phrase "subject to the jurisdiction thereof" clearly suggests that Congress has the authority to pass a law specifying what the requirements are for being "subject to

jurisdiction thereof" and who those requirements apply to.

That's why I've introduced legislation that would grant automatic citizenship to those born in the U.S. only if they have at least one parent who is a legal citizen (including naturalized citizens), a legal immigrant, or an active member of the armed forces. I'm not trying to prevent immigrants from becoming citizens. Instead, I want to ensure that anyone who doesn't meet that requirement must go through the same application process for U.S. citizenship as those born to foreign

parents outside the U.S.

Clearly, our entire immigration system needs a lot of work, but passing legislation that abolishes the practice of granting citizenship to everyone born here would be a good start. The U.S. welcomes hundreds of thousands of legal immigrants each year, and we should continue to do so. But it's time to actively prevent foreigners from coming to the U.S. in order to give birth to children who are U.S. citizens. •

—SENATOR DAVID VITTER  
Republican of Louisiana

**NO** Birthright citizenship is a fundamental part of American history and the values the country holds dear.

Following the Civil War and the emancipation of the slaves, the 14th Amendment to the Constitution became the cornerstone of American civil rights. It reaffirms that, with very few exceptions, all persons born in the United States are U.S. citizens, regardless of the immigration status of their parents. The Supreme Court has consistently upheld birthright citizenship over the years.

Immigrants come to the U.S. to work, to reunite with family, to flee persecution, and to create better lives for themselves and their children. Just like all people, immigrants may choose to have children. Even though those children are U.S. citizens by birth, they can't protect their parents from deportation, and they can't apply to obtain legal status for their parents until they're 21 years old.

Today, all Americans can use a birth certificate as proof of citizenship. Without that simple system, proving we're entitled to U.S. citizenship could be a lengthy and

expensive process—similar to what Americans who are born abroad sometimes have to go through: We'd have to prove that at least one parent was a citizen, which could involve tracking down old birth certificates, immigration documents, or marriage records. It's a process that can be challenging even for experienced immigration attorneys.

Eliminating birthright citizenship would actually increase the number of people living in the U.S. without authorization since babies would not have legal status from birth. That would create a large population of native-born noncitizens. Through no fault of their own, they would be forced to live on the margins of U.S. society, would be vulnerable to exploitation and abuse, and at constant risk of deportation.

As Americans, we must honor the 14th Amendment and ensure that all people born in the U.S. are citizens, and that no state or individual can again redefine citizenship to create an underclass. •

—MICHELE WASLIN  
American Immigration Council



NATIONAL

# BLUE & BLACK

**Protesting** the death of Laquan McDonald, 17, in Chicago last year, after a video surfaced of police shooting him in 2014



## Recent police killings of African-Americans have sparked outrage, protests, and deadly attacks on officers. What can be done to bridge the divide between police and black communities?

BY JACK HEALY AND NIKOLE HANNAH-JONES

ANALYZE THE ARTICLE

Shanel Berry has raised her two sons, Dallas, 15, and Amari, 11, to be confident and **upstanding**. She tells them to square their shoulders, look people in the eye, and defend what's right. But her advice comes with an exception: Do none of those things if stopped by the police.

In that case, she wants her sons to be cautious and just obey any orders the police may give them—even if they feel they were stopped for no reason.

"That is the part Dallas doesn't quite get," says Berry, a teacher in Waterloo, Iowa. "[He asks.] 'Why are you telling me to comply if I am not doing anything wrong?' I am trying to teach them to be men and stand up for themselves, but at the same time I am telling them to back down and not be who they are."

Around the country, black parents like Berry report having the same difficult discussion. They coach their kids never to talk back to the police or make sudden movements around them, and to make sure officers can always see their hands. Parents have this talk because they believe some police officers view blacks with suspicion and treat them less fairly than whites. They fear their children may be hurt, or even killed, during encounters with the police.

A string of police killings of African-Americans in recent

years has highlighted such fears. The killings made headlines and ignited protests nationwide after many of them were captured on video and widely viewed on social media. Civil rights leaders are calling for police to be held accountable for their actions and for an end to what they say is racial profiling. In response, many police say that they're being unfairly judged by the actions of a few officers and that **snippets** of video that go viral on social media don't always tell the whole story. Some law enforcement officials blame activist movements like Black Lives Matter for a growing anti-police sentiment that they say is making officers' jobs more dangerous.

Tensions reached a boiling point this past summer. First, on July 5 in Baton Rouge, Louisiana, two police officers shot and killed a black man named Alton Sterling while arresting him outside a store. The next day, an officer fatally shot another black man, Philando Castile, during a traffic stop near St. Paul, Minnesota. (Both Castile and Sterling were carrying guns, and Castile had a license to do so; the details of exactly what led up to each shooting are still under investigation.)

Then, on July 7, during a peaceful march in Dallas, Texas, protesting those shootings, a sniper killed five police officers. Ten days later, three officers in Baton Rouge were killed by a gunman who was targeting police. (The Dallas and Baton Rouge assailants, both black, were killed by police.)

In August, violence broke out in Milwaukee, Wisconsin, after a police officer fatally shot a black man named Sylville K. Smith who had allegedly fled with a gun during a traffic stop. In the protests that followed, angry crowds injured several officers.

These tragedies mark the latest chapter in an increasingly passionate debate over racial justice, discrimination, and violence in the United States.

"If we cannot talk honestly and openly—not just in the comfort of our own circles, but with those who look different than us or bring a different perspective—then we will never

SCOTT DLORNETT/IMAGES; CHICAGO; DAVID MCNERDETT/IMAGES; FERGUSON; JIM MONAHAN/IMAGES; PHILANDO CASTILE/ERIC GAVWP/IMAGES; DAVID O'NEAL/BROWN

### FLASHPOINTS

Some recent events that have aggravated tensions between police and black Americans

#### JULY 17, 2014

STATEN ISLAND, NEW YORK  
**Eric Garner**, 43, was stopped by police for allegedly selling loose cigarettes. He died after a police officer placed him in a chokehold.

#### AUG. 9, 2014

FERGUSON, MISSOURI  
**Michael Brown**, 18, was fatally shot by a white police officer after he was stopped for jaywalking and a confrontation ensued. His death sparked nationwide protests.



#### APRIL 12, 2015

BALTIMORE, MARYLAND  
**Freddie Gray**, 25, suffered a fatal spinal cord injury in police custody, leading to protests and unrest.

#### JULY 5 & 6, 2016

BATON ROUGE, LOUISIANA & ST. PAUL, MINNESOTA  
**Alton Sterling**, 37, was shot and killed by two police officers while he was being arrested outside a store. The next day, police shot and killed **Philando Castile** (right), 32, after pulling him over in his car.



#### JULY 7, 2016

DALLAS, TEXAS  
At a Black Lives Matter protest, a sniper targeting police killed five officers. (Above: Dallas Police Chief **David O'Neal Brown** at a news conference after the killings.)





break this dangerous cycle,” President Obama said at a memorial service in Dallas.

#### Ferguson, Missouri

The issue of racial bias in policing has been in the national spotlight since August 2014, when an unarmed black teenager named Michael Brown was killed by a white police officer in Ferguson, Missouri. The officer said he shot Brown in self-defense after a struggle. Some witnesses supported the officer's account; others said Brown posed no threat and the shooting was unjustified.

The officer wasn't charged with a crime. But a follow-up investigation by the Justice

Department found that police in Ferguson routinely discriminated against African-Americans and violated their constitutional rights. Black drivers were often stopped for no reason (a phenomenon many black Americans refer to as “driving while black”) and were much more likely to have their cars searched than whites. When officers used force (such as **Tasers**), nearly 90 percent of the time the suspects were black.

Many black Americans say that this sort of bias isn't unique to Ferguson. While the vast majority of police encounters with people across the country end peacefully, that's less likely with African-Americans. “None of this is new,” says Paul Butler, a law professor at Georgetown University in Washington, D.C. “African-Americans have never received equal justice under the law, and police have rarely been held accountable.”

Documenting racial profiling in police work is difficult. Several factors—including higher violent crime rates in many black neighborhoods—make it hard to distinguish evidence of bias from other influences. But federal statistics show that, nationwide, blacks are 31 percent more likely to be pulled over than whites. Studies have also found that blacks are more likely than whites and other groups to



Black Lives Matter protesters in Washington, D.C., in July

#### Many African-Americans distrust and fear the police.

be subjected to the use of force by the police. And a recent *Washington Post* analysis reported that blacks are more than twice as likely as whites to be shot and killed by the police.

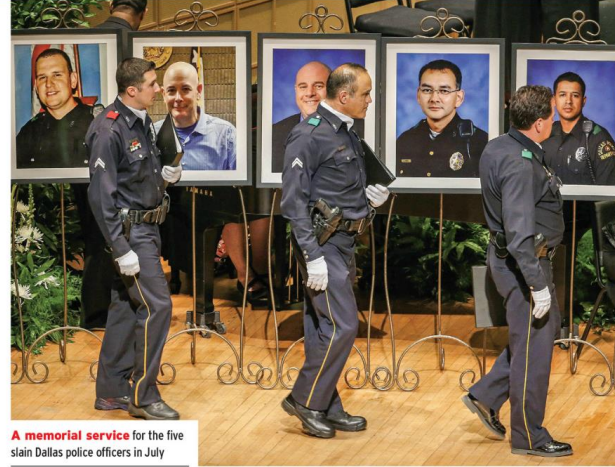
This has led many African-Americans to distrust and fear the police. New York City police detective Derick Waller, who is black, understands those feelings. “No officer leaves his house and says, ‘Man, I want to kill somebody today;’” he says. “[But] there is something that's rooted in America in the police department. It's just assumed that every black person that has a car with [tinted windows] has a gun.” For his part, Waller says being stopped by a police officer fills him with fear. “When I get pulled over, I get scared. I turn my ignition off, and I put my hands out the window.”

The recent high-profile killings of black men by the police have given growing **prominence** to the Black Lives Matter movement, which began in 2013 to address discrimination in the criminal justice system. Today, at least 37 different groups operate under the Black Lives Matter name, and tens of thousands of supporters identify with its cause. “Our demand is simple,” says activist Johnetta Elzie of St. Louis, Missouri. “Stop killing us.”

## WHEN POLICE ARE ON TRIAL

When someone dies at the hands of law enforcement, officers are rarely found guilty of a crime. Why? The law gives police a lot of discretion over whether deadly force is necessary. A 1989 Supreme Court ruling, *Graham v. Connor*, says that the use of force by police “must be judged from the perspective of a reasonable officer on the scene, rather than with the 20/20 vision of hindsight.” In other words, if officers can show that they feared for their lives (or the lives of others), the use of force—including deadly force—is unlikely to be considered criminal, even if the victims turn out to be unarmed.

JOSHUA ROBERTS/GETTY IMAGES



A memorial service for the five slain Dallas police officers in July

“No officer leaves his house and says, ‘Man, I want to kill somebody today.’”

Black Lives Matter uses nonviolent confrontation—such as large-scale street marches—to get its message across. Yet some of its tactics (for example, staging “die-ins” to mimic death at the hands of law enforcement) have prompted criticism from some police and public officials. They say that Black Lives Matter incites hatred of men and women in uniform. Critics have blamed the movement for inspiring the gunmen who killed officers in Dallas and Baton Rouge, even though Black Lives Matter leaders have condemned attacks against the police.

Black Lives Matter supporters say they are not anti-police. “The Black Lives movement is about civil rights,” protester Shyheim Aiken said at a demonstration in New York City. “It's not about any one group. Those who say the movement is against cops simply don't know what they're talking about.”

Still, police report that their jobs have gotten harder in recent months as tensions have risen between them and many of the communities they serve. “Before it was just criminals that didn't like you,” says a police officer in Florida. “Now everybody believes we're the bad guy.”

#### A Way Forward?

With more than 350 million firearms in the United States, police officers say they face the daily threat of being killed and must make split-second decisions, which can then be endlessly second-guessed in videos that go viral.

“One of the worries that cops have is that no cop can control what another cop does, but all cops will be judged by what the other cop does,” says Brandon del Pozo, a police chief in Vermont. “We'll sit there . . . watching police videos all over the country, trying to make sense of what we're seeing and trying to make sure we're doing the best job we can.”

PAUL MOSELEY/TNS FOR ZUMA WIRE

What happens now? For starters, a growing number of police departments are training officers in how to defuse volatile situations before force becomes necessary. Such training teaches them to use time and distance to resolve tense interactions. (Last year, top American police officials visited Scotland—where 98 percent of police do not carry guns—to learn how officers there handle confrontation.)

The federal government has also funded body cameras for officers in more than 30 states. Proponents of these cameras say that officers will be more mindful of their actions if they know they're being recorded. In addition, a presidential task force has released ideas for building trust between police and communities. One suggestion is to create citizen advisory boards to provide input and **oversight** for local police departments. But the pace of change is slow and hostility remains.

“There is no doubt that police departments still feel embattled and unjustly accused, and there is no doubt that minority communities . . . still feel like it just takes too long to do what's right,” Obama said in July. “I think it is fair to say we will see more tension between police and communities this month, next month, next year, for quite some time.”

Following the violence this summer, Obama invited Black Lives Matter activists and police officials to meet at the White House.

“We still need many in law enforcement to recognize that action needs to happen,” activist Rashad Robinson of the racial justice group Color of Change said afterward. “What we heard was a willingness to listen, which means that we need to continue to raise everyday people's voices.”

Jack Healy and Nikole Hannah-Jones cover national news for *The New York Times*; additional reporting by other *Times* journalists.



TIMES PAST



Immigrants awaiting medical examination at Ellis Island in New York, early 1900s

ANALYZE THE ARTICLE



Taking the oath for U.S. citizenship during a naturalization ceremony in Portland, Maine, in April

# THE FIGHT OVER IMMIGRATION

The presidential race has highlighted the long debate over immigration in the U.S. Why are we so divided? BY BRYAN BROWN

At Donald Trump rallies, the call can come at any moment: “Build the wall! Build the wall!” the crowd chants. “We will build it,” the Republican nominee for president replies. “And who’s going to pay for the wall?” he prompts his audience. “Mexico!” the people roar.

Trump’s promise to build a wall along the entire 2,000-mile border between the U.S. and Mexico has struck a chord with many Americans. They say the esti-

mated 11 million undocumented immigrants living in the U.S.—many of them from Mexico—are taking American jobs and costing the U.S. billions of dollars annually in social services. Last year, in response to ISIS-inspired terrorist attacks in the U.S., Trump also called for a temporary ban on foreign Muslims entering the country, arguing that there might be terrorists among them. More recently, Trump said he would ban immigrants from any nation that has been “compromised by terrorism.”

Yet many Americans disagree with Trump’s proposals. They say immigrants help grow the economy and that undocumented immigrants take low-paying jobs that no one else wants. Democratic presidential nominee Hillary Clinton has pledged to fight for reforms that would give undocumented immigrants a path to citizenship. And many Democrats and Republicans believe, as Clinton has said, that a ban on Muslims “goes against everything we stand for as a country.”

Such arguments may be making headlines, but none of them are new, says Roger Daniels, author of several

books on immigration. He says Americans have had “a love and hate relationship” with immigrants since the nation’s founding (see *Timeline*, p. 20).

## George Washington & Ben Franklin

America’s battle over immigration dates back to the Declaration of Independence, written by Thomas Jefferson in 1776. Among the document’s grievances against Britain’s King George III was that the king was “obstructing the laws for the naturalization of foreigners”—preventing the colonists from attracting immigrants.

Naturalizing new arrivals was also on George Washington’s mind when he addressed a group of Irish immigrants in 1783. The U.S. was open to “the oppressed and persecuted of all nations and religions, whom we shall welcome to a participation of all our rights and privileges,” he said.

This was not just a matter of principle: It was necessary to America’s survival. “The Founding Fathers had a big, vacant country,” says Daniels. “Immigration was vital to help fill it up.”

Even from the beginning, however, some Americans were suspicious of immigrants. In 1751, Benjamin Franklin warned fellow Pennsylvanians that German immigrants were “a colony of aliens [who] will never adopt our language or customs” and complained that “few of their children in the country learn English.”

Franklin came to embrace immigration. Yet his words show that the question of who qualifies as an American has always been a subject for debate.

The nation’s first census, in 1790, counted nearly 4 million people, mostly Protestant Christians of English, Welsh, or Scottish heritage. In the 1830s, newcomers began to arrive in great numbers: nearly 5 million people in 30 years. About a third of them were Irish—poor and Catholic. Nearly another third were Catholic Germans.

This alarmed some Protestants, who considered themselves the real Americans. Mobs periodically attacked Catholic churches or schools. Pamphlets circulated claiming that the Pope, head of the Roman Catholic Church, was trying to undermine American democracy.

In 1856, the anti-immigrant “Know Nothing” party fielded a presidential candidate and won 20 percent of the vote.

For most of the 19th century, the U.S. government continued to encourage immigrants to fill the country’s great spaces. In 1862, Congress passed the Homestead Act, which opened up huge territories west of the Mississippi River. Settlers were promised a plot of land if they lived on it for five years, and thousands of German, Scandinavian, and Irish families took advantage of the opportunity. “That’s the way the Midwest got populated,” says Daniels. It’s also how Germans and Irish gained acceptance as Americans.

## Chinese Exclusion

The Chinese had a harder time. In the mid-19th century, about 300,000 Chinese came to America—many settling in California, where they were eventually recruited to help build America’s first transcontinental railroad. This influx of strangers inspired protests and local laws to “protect free white labor,” as an 1862 California law put it. The backlash led to the Chinese

Watch a video on immigration in America.

18 The New York Times UPFRONT • UPFRONTMAGAZINE.COM

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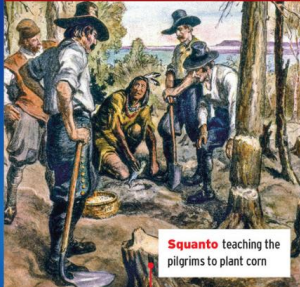
18



SEPTEMBER 19, 2016 19



## Timeline IMMIGRATION IN THE U.S.



Squanto teaching the pilgrims to plant corn



Chinese gold miners, California, 1852



Immigrants arriving at Ellis Island in New York around 1880



The Supreme Court rejected some of President Obama's attempts to protect undocumented immigrants from deportation.

### Pre-1776

#### Colonial Period

In the century and a half before independence, most settlers are from the British Isles; German immigrants settle mainly in Pennsylvania.



Benjamin Franklin feared that German immigrants were "a colony of aliens (who) will never adopt our customs."

Exclusion Act of 1882, congress's first attempt to regulate immigration along racial lines. By the 20th century, the tide of newcomers was only growing stronger. More than 27 million people entered the U.S. from 1880 to 1930. Many of them were Poles, Jews, Greeks, and Italians from Eastern and Southern Europe—people with strange new customs and languages. This sparked growing, often racist, concerns about foreigners driving

### 1845

#### The Potato Famine

Widespread starvation in Ireland prompts massive emigration; 2 million Irish head to the U.S. in a decade.

### 1849

#### The Chinese

The California Gold Rush attracts Chinese immigrants who later help build the first transcontinental railroad. In 1882, Congress bars Chinese immigration.

### 1860s-1880s

#### Italians, Poles & Jews

Poverty and religious discrimination in Eastern and Southern Europe spur an influx of Polish, Russian, Jewish, and Italian immigrants.

### 1892

#### Ellis Island

Ellis Island opens in New York Harbor, the main entry point into the U.S. In 1907, a million immigrants pass through. It closes in 1954.

### 1921

#### Quotas by Nationality

Congress imposes immigration quotas that favor the admission of Northern Europeans over Southern and Eastern Europeans.

### 1965

#### Quotas Abolished

The Immigration and Nationality Act of 1965 abolishes quotas. The U.S. sees an influx of Asians and Latin Americans over the next 40 years.

### 2001

#### 9/11 Attacks

In response to the September 11 terrorist attacks, the USA Patriot Act tightens immigration with stricter border security.

### 2016

#### A Divided Congress

A sharply divided Congress is unable to agree on immigration reform—and what to do about the 11 million undocumented immigrants in the U.S.

down wages or breeding crime. In 1921, Washington set the first immigration quotas. These restrictions, which favored Northern and Western Europeans, were designed to maintain the country's ethnic mix. They sharply reduced the number of immigrants allowed into the country. It wasn't until the civil rights movement in the 1960s that many Americans recognized the quotas as discriminatory. The Immigration and Nationality Act of 1965, which officially ended the old quo-

tas, "reclaimed the idea that America was a nation that welcomed immigrants," according to historian Mae Ngai of Columbia University in New York. Since then, about 59 million people—many from Africa, Southeast Asia, and the Middle East—have come to the country, according to the Pew Research Center. Today, about 14 percent of the U.S. population was born in a foreign country.

#### Anxieties Old & New

According to Ellen Percy Kraly, a geographer at Colgate University in Hamilton, New York, the worries many Americans have about immigrants haven't changed much from a century ago. Then, as now, "concerns had to do with sovereignty, jobs, issues of security, the loss of 'traditional American values,'" she says.

Recent disputes between Clinton and Trump highlight how the immigration debate continues. Many Americans agree that the U.S. needs immigration reform but are divided over how to do so.

One of the fiercest battles has been over the 11 million undocumented people

living in the U.S., predominantly from Mexico and Central America (see chart, p. 20). After surging for two decades, the total number of undocumented immigrants has remained stable since about 2009. That means fewer undocumented people are entering the U.S. and some are even leaving, thanks to tougher border security and an improving Mexican economy. But lawmakers are divided over what to do about undocumented people currently in the U.S.

In 2013, a bipartisan bill setting a 13-year path to citizenship for undocumented immigrants passed in the Senate. But the Republican-controlled House of Representatives refused to consider it, and the bill died.

President Obama's attempts to protect undocumented immigrants from deportation have had mixed success. In 2012, he issued an executive order to temporarily protect more than 1 million undocumented young people brought to the

U.S. before age 16. But his later order to extend the protection to their parents was rejected by the Supreme Court in June.

Meanwhile, ISIS-inspired attacks by Muslims in the U.S.—such as the shootings in San Bernardino, California, last December, and in Orlando in June—have left some Americans wondering whether legal residents from Muslim countries represent a national security threat.

Of particular concern have been refugees from Syria's brutal civil war. Last October, the Obama administration agreed to accept 10,000 Syrians for resettlement within a year. But 31 state governors refused to allow any of the refugees to be relocated in their state. (So far, courts have said states must accept them.)

How such issues are handled may depend on the outcome of the election this November. Clinton promises to push for immigration reform and fight for a path to citizenship for undocu-

mented immigrants, as well as accept up to 65,000 Syrian refugees. Trump says that in addition to banning foreign Muslims from entering the U.S. and building a wall with Mexico, he'll deport undocumented immigrants who have criminal records but be "fair but firm" with those who don't. (During the primaries and up until recently, Trump had called for deporting all undocumented immigrants.) Whoever wins is likely to face stiff opposition on immigration, and a divided Congress.

Whatever the case, the U.S. will continue to be a nation of immigrants. Research organizations like Pew estimate that future immigrants and their descendants will make up an increasing percentage of the U.S. population.

Kraly, the geography professor, says that just as in the past, these immigrants will likely become as fully American as past generations have. As for those age-old worries about new arrivals—like the kind Ben Franklin had—she isn't worried.

"After all," she says, "we're not speaking German." •

## WHERE THEY'RE FROM

Top countries of origin of undocumented immigrants in the U.S.

1. Mexico	6,194,000
2. Guatemala	704,000
3. El Salvador	436,000
4. Honduras	317,000
5. China	285,000

Top countries of origin of immigrants in the U.S. legally

1. Mexico	6,879,000
2. China	2,365,000
3. India	2,021,000
4. Philippines	1,840,000
5. Vietnam	1,237,000

SOURCE: MIGRATION POLICY INSTITUTE. (2013 ESTIMATES FOR UNDOCUMENTED IMMIGRANTS; 2014 FIGURES FOR IMMIGRANTS IN THE U.S. LEGALLY)



ANALYZE  
THE  
ARTICLE

# How the MIDDLE EAST Got That Way

A century ago, two diplomats carved out lines on the Middle East map, creating new nations and sowing the seeds for much of the strife in the region today BY JOSEPH BERGER

**V**iolence, ethnic clashes, political instability—have you ever wondered why the Middle East is such a mess? It may be hard to believe, but a lot of it traces back to 100 years ago, in 1916, when two men sitting over long tables in palatial rooms sketched out lines on a map that effectively carved out much of today's turbulent Middle East.

With World War I (1914-18) still raging and the Ottoman Empire on the verge of collapse, diplomats Sir Mark Sykes of Britain and François Georges-Picot of France set the boundaries for modern-day Syria, Lebanon, Iraq, Jordan, and much of the land that Israel and the Palestinians are still fighting over. They worked in secret, and, by an agreement that bore their names, largely ignored the complicated histories and interests of the many ethnic and religious groups who had been living there for centuries, including Turks, Arabs, Kurds, Muslims, Christians, and Jews.



**Mapmakers:**  
Sir Mark Sykes of Britain  
(top) and François  
Georges-Picot of France

"Sykes-Picot is at the root of many of today's conflicts in the Middle East," says David L. Phillips, a Middle East expert at Columbia University in New York who has advised the last three presidential administrations.

The effects of the borders the two men **contrived** can be felt everywhere from Syria, which is mired in a civil war that began more than five years ago and has cost tens of thousands of lives, to Iraq, which has been struggling to root out the brutal terrorist group ISIS (also known as the Islamic State or ISIL) that since 2014 has been taking over large swaths of territory in Iraq as well as in Syria.

### The Ottoman Empire

Beginning in the 16th century, the region now known as the Middle East fell under the control of the Ottoman Empire, the vast Turkish realm that at its height also controlled much of southeastern Europe and northern Africa. European military victories in



Download an annotated excerpt of the Sykes-Picot agreement.



the 19th century had already begun eating away at much of the Ottoman territory. But the Turks suffered a final blow during World War I, when they made the strategic miscalculation of joining Germany and Austria-Hungary in what would be a losing battle against Britain, France, Russia, and ultimately the U.S.

After the war, Britain and France—the two major European powers at the time—divided up the Ottoman Empire's spoils, based on the work of diplomats Sykes and Picot. The men had convened in Paris and London from November 1915 to March 1916, marking off areas for the British and French to control at war's end (see map, p. 19). As had been true of European imperialism during the 19th century (the so-called scramble for Africa), Britain and France were

primarily focused on advancing their own commercial interests, like tapping the Middle East's newly discovered vast oil reserves. They largely ignored the complex ethnic and religious allegiances of the lands in question.

"The great powers carved up the Middle East into zones of influence, without consultations and without regard to local needs," says Phillips.

When the Sykes-Picot agreement was

disclosed, Arab leaders were furious. They felt betrayed, because France and Britain had promised them autonomous lands in exchange for taking up arms against their Turkish Ottoman rulers. When world powers met after World War I to discuss the fate of the Ottoman territories, President Woodrow Wilson advocated for self-determination of these lands in his Fourteen Points. But the Treaty of Versailles (1919), which officially ended the war, as well as other postwar treaties, ultimately upheld the Sykes-Picot agreement. The League of Nations (a precursor to the United Nations) authorized "mandates" for Britain and France, which gave

**'The sense of being a citizen did not exist.'**

them broad powers to influence policy and trade in the former Ottoman territories.

"After being promised complete and independent nationhood from Ottoman

rule, Arab leaders were told, 'No, we're not going to do that for you,' " says Christopher Rose of the Center for Middle Eastern Studies at the University of Texas at Austin. "What we're going to do is set you up as these 'mandates,' and you will get independence at some time in the future."

The British and French argued that in creating modern, secular nation-states, they were essentially helping these coun-

tries. But as Shadi Hamid, a senior fellow at the Brookings Institution, points out, the people formerly living under Ottoman rule didn't really think of themselves as nations with firm borders, but rather as tribal and religious groups.

"The sense of being a citizen did not exist," says Hamid. "It was about being a member of a religious community, that's how you identified."

#### Sunnis vs. Shiites

Sunni and Shiite Muslims, for example, are two distinct sects that have been at odds for centuries. The schism dates back to 632, when Islam's founder, Muhammad the prophet, died and disagreement arose over who should rightfully succeed him. Today, most of the world's 1.6 billion Muslims are Sunni, with Shiites the majority in only Iran and Iraq.

Lumping together rival ethnicities into newly formed nations soon led to power struggles that are unresolved today. Here's how the events unfolded.

**IRAQ:** The clashing Sunni, Shiite, and Kurdish\* tribes that the Sykes-Picot agreement forced together were mostly kept in check by a series of autocratic dictators and kings. Among them was **strongman** Saddam Hussein, who came to power in 1979. In 2003, he was overthrown by an American-led coalition claiming he harbored weapons of mass destruction. (No such weapons were ever found.)

In the aftermath, old ethnic rivalries resurfaced. Americans tried installing a coalition government of Sunnis, Shiites, and Kurds, but Shiites ultimately assumed power. That led some Sunnis to form an extremist group that eventually joined with radicals in Syria to create ISIS. The Sunni Muslim terrorist group is intent on exterminating Shiite Muslims, Kurds, and Westerners in its quest to establish its own brand of radical Islam in the Middle

\*About 20 million Kurds live along the borders of Armenia, Iran, Iraq, Syria, and Turkey. Most adhere to Sunni Islam.

East. ISIS has proved remarkably successful at recruiting terrorists online from around the world, including the U.S.: In December, a married couple inspired by ISIS killed 14 people at an office party in San Bernardino, California.

**SYRIA:** Even though most of the people living in this region were Sunni, French powers installed Western-friendly leaders from the Alawite sect of Shiite Islam. In 1971, Hafez al-Assad became president and kept the country united, often through brutal repression.

In 2000, he was succeeded by his son, Bashar al-Assad, Syria's current president. But after the Arab Spring—the wave of democracy protests that began in 2010 across the Middle East—a civil war broke out in Syria that has so far cost more than 250,000 lives and has allowed ISIS to conquer some Syrian territory.

Several Sunni rebel factions are fighting to overthrow Assad, with powers like the U.S. and Russia intervening militarily. (The U.S. has supported moderate rebels while Russia has supported Assad.) Meanwhile, millions of desperate refugees have been fleeing both Syria and Iraq and posing a wrenching immigration problem for their neighbors and for Europe.

**LEBANON:** France carved out Syria's coastal region into the separate state of Lebanon, which was meant to be a safe haven for the Christian **enclaves** of the Ottoman Empire. The country gained independence from France in 1943. But from 1975 to 1990, it was ravaged by a civil war between Christians and Muslims that resulted in 250,000 deaths. Today its multi-religious government still teeters under a fragile power-sharing formula.

**'THE PALESTINE MANDATE':** The British mandate over Palestine included present-day Israel, Jordan,



**A Syrian Kurdish boy** in the Syrian town of Kobani, which was destroyed by ISIS before the terrorist group was driven out last year.

and the West Bank and Gaza. At the time, the majority of the population living there was Arab, and most opposed the Zionist movement, which called for a Jewish state in Palestine.

But world pressure to create a Jewish homeland increased after World War II (1939-45), when 6 million Jews were murdered in the Holocaust. In 1947, Britain, with approval from the United Nations, came up with a partition plan that would create the nations of Israel and Palestine. The Jews accepted the plan, but the Palestinians and surrounding Arab countries rejected it and fought an unsuccessful war against the newly declared state of Israel in May 1948. In the 1967 Six-Day War, Israel expanded territory under its control by capturing lands where many Palestinians were living.

For decades, Israel and the Palestinians have been locked in a conflict that periodically explodes into violence, with no end in sight, despite the efforts of at least nine American presidents to broker a peace agreement. The occupied Palestinians continue to clamor for a state of their own.

One hundred years after Sykes-Picot, not all experts agree that it is to blame for the Middle East's troubles. Robert Danin, of the Council on Foreign Relations, notes that many nations with arbitrary boundaries in other regions of the world have managed to live in relative peace.

#### Learning From the Past?

Still, many experts as well as Arab nations, see Sykes-Picot as the starting point for much of the region's turmoil today. Rose, of the University of Texas at Austin, says that as the U.S. and other world powers struggle to figure out how best to handle crises like the Syrian civil war, the mistakes colonial powers made in 1916 should serve as a lesson.

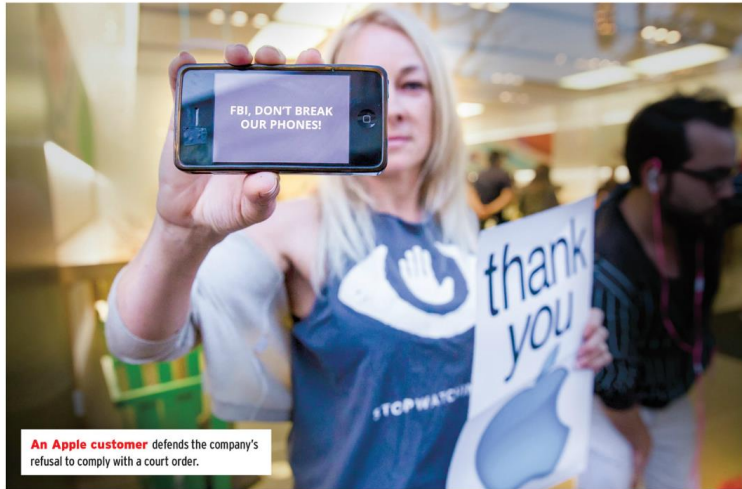
"We can't have a peace conference where the world powers sit down and say, 'Hey, here's how we're going to solve your problems,'" says Rose. "We can help, we can aid, we can partner, we can support, but Syrians have to be a key player in however the settlement is worked out." •

Joseph Berger is a former reporter for *The New York Times*.



**Israeli border police** and Palestinian girls in Jerusalem last month. The Israeli-Palestinian conflict has lasted for decades.





An Apple customer defends the company's refusal to comply with a court order.

# Apple vs. The F.B.I.

The battle over a terrorist's locked iPhone could have a huge impact on the future of digital privacy BY PATRICIA SMITH



After killing 14 people at an office party in San Bernardino, California, in December, Syed Rizwan Farook and his wife died in a shoot-out with police. Farook, who claimed to be acting on behalf of the terrorist group ISIS, left behind a locked iPhone 5c.

The F.B.I. wants to know what's on that phone. Finding out who Farook was in touch with and where he traveled in the time leading up to the massacre might help prevent future attacks, officials say. So they went to federal court and got a warrant requiring Apple to bypass the security system built into the phone.

Watch a video about the Apple-F.B.I. fight.

But Apple, one of the world's most powerful technology companies, is fighting the court order, saying the government is overstepping its bounds. Complying with the order, Apple says, would set a dangerous precedent and threaten the privacy rights of Americans.

"While we believe the F.B.I.'s intentions are good, it would be wrong for the government to force us to build a back door into our products," says Apple CEO Timothy Cook. "And ultimately, we fear that this demand would undermine the very freedoms and liberty our government is meant to protect."

The fight between Apple and the F.B.I.

could turn out to be a watershed moment that helps define constitutional rights like privacy in today's wired world. The issue is important because people's lives have become so intertwined with their smartphones and other gadgets. And tech companies like Apple and Google control massive amounts of user data.

The Fourth Amendment to the Constitution prohibits "unreasonable searches and seizures" (see box), and courts have often interpreted that language as guaranteeing Americans certain privacy rights. When the Founding Fathers wrote the Bill of Rights in the late 1700s, however, they had someone's home or property in mind. They couldn't have imagined applying those

ERIGENE GARCIA/REUTERS



protections to 21st-century technology.

"The stakes are high," says Marc Rotenberg of the Electronic Privacy Information Center. "This case is about how constitutional principles such as the Fourth Amendment and the First Amendment apply in the digital age."

### An Unbreakable Lock?

In some ways, the fight between Apple and the F.B.I. boils down to this question: Should you be able to lock your phone so securely that even the F.B.I. can't open it?

The F.B.I., the Obama administration, and police officials say no. After all, they reason, homes and cars don't have unbreakable locks. With a legal warrant from a judge, an officer should be able—as they have in the past—to search any of those. Therefore, they say, criminals shouldn't be able to buy a handheld computer—what an iPhone essentially



The San Bernardino attackers, Syed Rizwan Farook and his wife, Tasheen Malik

### The Fourth Amendment

This section of the Bill of Rights prohibits "unreasonable searches and seizures." That means the police need a court-issued warrant to conduct a search—whether of a house, a car, a computer, or a cellphone.

In the Apple case, the government got a search warrant, but Apple is refusing to comply. The company says it's being forced to design software that will create a future threat to everyone's privacy.

is—that keeps its secrets forever.

In its battle with Apple, the F.B.I. maintains it's asking for help to break into only a single phone, not phones everywhere. That requires overriding Apple's security setting that erases data after 10 incorrect attempts at entering a phone's passcode.

"We simply want the chance, with a search warrant, to try to guess the terrorist's passcode without the phone essentially self-destructing and without it taking a decade to guess correctly," says F.B.I. Director James Comey. "We don't want to break anyone's encryption or set a master key loose on the land."

Many Americans seem sympathetic to the F.B.I.'s argument: 51 percent back the government in this dispute, with 38 percent saying they side with Apple,

according to a recent Pew Research Center survey.

But Apple says the government is missing the point: People's phones are a record of their most intimate thoughts and personal information, including financial records, friends' addresses, location data, personal photos, and more. Apple built its recent iPhones to keep that data private, and it says nothing less than the future of privacy is at stake in this fight.

The F.B.I. wants Apple to write software that would let it keep guessing until it hits the code. Apple says that would, in effect, give the government—and perhaps hackers—the ability to get into anyone's phone. And Apple isn't just concerned about the U.S. government: Once created, a decryption tool could be used by authoritarian regimes around the world against human rights activists or anyone else who dares to stand up to them.

"The government suggests this tool could only be used once, on one phone. But that's simply not true," Apple CEO Cook says. "Once created, the technique could be used over and over again, on any number of devices."

With neither side backing down, experts say the case will likely end up before the Supreme Court. Most of the country's other tech giants—Microsoft, Google, Twitter, Facebook, and Yahoo—have thrown their weight behind Apple.

Both sides have asked Congress to decide when law enforcement should be allowed to access citizens' private data. The debate in Congress comes three years after Edward Snowden, a National Security Agency contractor, revealed that the N.S.A. was secretly collecting Americans' phone call data in an effort to thwart terrorists; after a public outcry, the program ended in 2015.

"The larger question isn't going to be answered in the courts and shouldn't be," says Comey. "It's really about who do we want to be as a country and how do we want to govern ourselves."

With reporting by Vindu Goel, Jim Kerstetter, Katie Benner, Eric Lichtblau, and Nick Wingfield of The New York Times.



## HEADS UP

REAL NEWS ABOUT DRUGS AND YOUR BODY

# PRESCRIPTION PAIN MEDICATIONS: WHAT YOU NEED TO KNOW

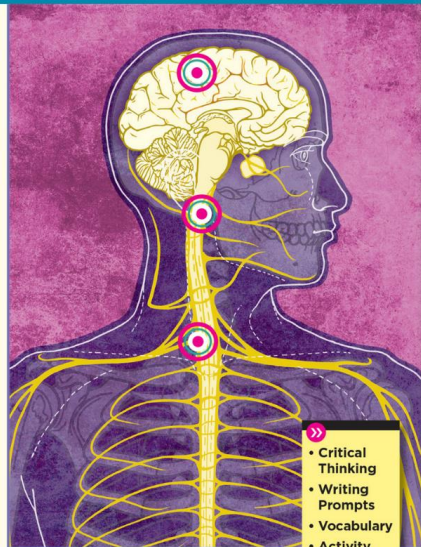
When used as directed by a doctor, powerful prescription pain medications called opioids (pronounced *OH-pee-oyds*) have helped millions of people cope with serious pain. But when used incorrectly, they can be addictive and deadly.

Some pain can be treated by over-the-counter medications such as Advil® and Tylenol®. But for pain from surgery, cancer, or serious injuries, doctors often prescribe the most powerful medications available—opioids. Opioid medications, such as Vicodin® and OxyContin®, are part of a class of drugs that resemble opioid chemicals our bodies make. In nature, opioids are found in the poppy plant, which is the source of some opioid medications as well as illegal opioids such as heroin.

Opioid medications are made to specific standards and regulated by the government for safety. But opioid medications can be powerfully addictive and can cause an overdose if not taken correctly. How is it that a medication that is so effective at relieving pain and helpful in healing can be so harmful when misused? The answer comes from how opioids work in the body.

### Opioid Drugs: Master Impersonators

Opioid drugs, including medications and illegal drugs, are chemically very similar to endorphins, one of the body's natural opioids. When opioid drugs are taken, they use opioid receptors that are normally accessed by endorphins to tap into the body's systems. However, opioid drugs are more powerful than the opioids the body makes, so they trigger much stronger reactions.



- Critical Thinking
- Writing Prompts
- Vocabulary
- Activity

### Opioids and Pain

Endorphins naturally block pain by binding to opioid receptors in the spinal cord and other parts of the nervous system. Opioid drugs mimic endorphins but cause a much stronger pain-blocking signal. This is why opioid medications are prescribed for serious pain.

### Opioids and Addiction

Opioid receptors are also found in the part of the brain that releases dopamine. Dopamine causes us to feel pleasure and to remember which behaviors produced this feeling. For example, endorphins released during physical activity can prompt a surge of dopamine, known as a "runner's high." Opioid drugs, however, cause a larger flood of dopamine to be released. The brain remembers the "high" and over time, with repeated abuse, develops an altered dopamine response. The brain begins to crave the extra intensity only an opioid drug can deliver, which can lead to addiction.

## OPIOIDS IN THE BODY

Opioid receptors are located in the brain, brain stem, spinal cord, intestines, and other organs. When endorphins, our body's naturally made opioids, are released or when opioid drugs, including medications, are taken, they bind to opioid receptors in the brain and body to regulate functions including pain, pleasure, breathing, and digestion.

- BRAIN:** There are opioid receptors throughout the brain, including in the cerebral cortex, cerebellum, nucleus accumbens, ventral tegmental area, substantia nigra, and hypothalamus of the brain. These areas are involved in pain perception, emotion, and reward (pleasure). The activation of the reward center is the primary reason opioids can lead to addiction.
- BRAIN STEM:** When opioids bind to receptors in the brain stem, breathing slows down, which creates a feeling of relaxation. This reaction to opioids is the reason an overdose can cause a person's breathing to stop.
- SPINAL CORD:** The opioid receptors in the spinal cord reduce pain signals from an injury, sickness, or surgery. This interference in pain perception is the intended function of prescription opioids.

### Opioids and Overdose

Opioid receptors in the brain and brain stem also regulate breathing. In proper doses, opioids slow breathing and create a feeling of relaxation. But if a person takes too much, he or she can stop breathing entirely. Taking opioids with other drugs that also slow breathing, such as alcohol, increases the risk that a person will stop breathing.

In 2014, there were 28,647 drug-poisoning deaths involving prescription opioids or heroin. This number has tripled since 2002. As a result of many more people now abusing prescription

### Rise in Heroin Use and Overdoses

Approximately 80 percent of current heroin users got started by first misusing prescription opioids. However, only about 4 percent of people who misuse prescription opioids will start using heroin. Still, the United States is experiencing a spike in heroin use among men and women, of all income levels and most age groups. As heroin use goes up, so does the death rate from heroin overdose, which has quadrupled in the past 10 years.

## Dependence vs. Addiction

Patients taking opioid medications for a long period of time often develop a tolerance, requiring more opioids to achieve the same effect. Long-term use may also lead the body to produce fewer endorphins and opioid receptors. These changes signal a *physical dependence*, which causes people to go through withdrawal, feeling sick or depressed without opioid drugs. Physical dependence can—but doesn't always—lead to *addiction*, a disease that involves additional changes to brain circuitry. Someone who is addicted takes drugs compulsively, even when he or she experiences negative consequences. While dependence involves a person's physical body, addiction takes over his or her entire life.

opioids, overdose deaths from opioids have also spiked. In fact, they now outnumber deaths from heroin and cocaine combined!

### How to Stay Safe

Most people who take prescription opioids do not become addicted or overdose. The risk for serious problems goes up when opioids are misused. If you are ever prescribed an opioid, take these precautions:



- You and your parents should talk about the risks with your doctor and ask about any alternative treatments.
- Take your medications exactly as prescribed. If you are still in pain while following the directions, you should go back to the doctor—not take more of your medicine.
- If you have a history of a substance use disorder or mental illness, tell your doctor, as these increase your risk for addiction.
- If you start taking prescription opioids that have not been prescribed to you, or more than your doctor prescribed, or for their pleasurable effects, tell your doctor, a parent, or another trusted adult. These are signs that you may have a substance use disorder and need professional help. The sooner you get help, the better your chances are for recovery.
- Do not give your prescription drugs to anyone else. This is dangerous and illegal.
- If you have leftover pills, ask a pharmacist or look online for programs that take back unused medications.\*
- Opioids should never be combined with alcohol. Combining them increases the risk of overdose and death.

▶ **More Info:** Visit [scholastic.com/headsup](http://scholastic.com/headsup) and [teens.drugabuse.gov](http://teens.drugabuse.gov).

▶ **To Get Help for Drug Addiction:** Call 1-800-662-HELP.

▶ **In Case of Opioid Overdose:** Call 911. Naloxone is an emergency medication that can prevent opioid overdose death if given in time.

From Scholastic and the scientists of the National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services

\*One helpful resource: Visit [fda.gov](http://fda.gov) and search for the article "Disposal of Unused Medicines: What You Should Know."

CDC (2015) "National Vital Statistics System, Mortality Data"



# Should the Guantánamo Prison Be Closed?

Since his first day in the White House, back in January 2009, President Obama has sought to close the prison for terrorism suspects at the Guantánamo Bay Naval Base in Cuba, which opened in 2002. Many in Congress have **vehemently** opposed the idea. With less than a year left in office, Obama is renewing his efforts: In February, he sent Congress a plan that calls for transferring about 60 of the most dangerous detainees to American prisons; the remaining 30 or so would be sent to other countries. Lawmakers remain divided about whether it's safe to close the detention facility—and what the impact is of keeping it open.

Analyze the arguments.

Cast your vote and see instant results.



The first detainees at Guantánamo, in January 2002

## Guantánamo BY THE NUMBERS

**779**

Total number of detainees who've been held at Guantánamo since the prison opened in 2002.

SOURCE: ACLU

**680**

Number of detainees who've been transferred to other countries. Afghanistan has taken 203, more than any other country.

SOURCE: THE NEW YORK TIMES

**1**

Number of detainees transferred to the U.S. for prosecution.

SOURCE: ACLU

**49**

Number of countries that people held at Guantánamo have come from. Afghanistan has had the most citizens imprisoned: 220.

SOURCE: THE NEW YORK TIMES

**YES** Instead of blocking President Obama's efforts to close the Guantánamo Bay detention facility, Congress should be working with him to finally shut it down. This prison has cost us billions and is a real threat to our national security.

Simply put, Guantánamo is one of the best propaganda tools that terrorists have today. Our enemies use it to justify terrorism and recruit others to carry out violent jihad, and our allies continue to criticize it as a violation of the rule of law. It's no coincidence that the Islamic State, also known as ISIS, dresses its victims in the same orange prisoner suits used in Guantánamo before conducting their **ghastly** beheadings.

Guantánamo is also a huge drain on taxpayer dollars. It's hard to justify spending more than \$4.89 million per detainee annually when it costs just \$73,624 to hold an inmate in the so-called Supermax federal penitentiary in Colorado.

So what have we achieved by spending \$445 million a year to run Guantánamo? During President George W. Bush's administration, 779 people were brought to Guantánamo, all without charge. Over time, we've learned that

many were simply in the wrong place at the wrong time and shouldn't have been detained in the first place.

Most detainees—532 to be exact—were released by the Bush administration. Of the 91 detainees who remain, only about 10 have been convicted or charged with a crime in the military commissions. Shockingly, the five co-conspirators charged with planning the 9/11 attacks have still not gone to trial, despite the filing of charges years ago. Contrast that with the record of the federal criminal courts: Between Sept. 11, 2001, and the end of 2014, civilian courts prosecuted 580 terrorism-related cases, with a conviction rate of about 90 percent.

We need to bring detainees to the U.S., where we can hold them securely for as long as necessary. Federal prisons already hold Al Qaeda terrorists. No one has ever escaped from Supermax, and there's no reason to think a Guantánamo detainee would. Congress should take **tangible** steps to close Guantánamo.

—SENATOR DIANNE FEINSTEIN  
Democrat of California



**NO** The only way to close the detention facility at Guantánamo Bay is to either release all the prisoners or to transfer those who remain to prisons on American soil. Both of those options are unacceptable, so the facility must remain open.

We can't under any circumstance release the detainees. As even President Obama has admitted, more than 50 of these terrorists are so dangerous they will never be cleared for release. That means if you want to close Guantánamo, you have to bring them to U.S. prisons.

Since 2011, Congress has passed more than a dozen bills barring the transfer of Guantánamo detainees to U.S. soil. With Republicans and Democrats joining together to overwhelmingly support keeping the detainees at Guantánamo, it's clear that the majority of Americans and their representatives believe this is the best option for our national security.

Guantánamo was chosen as the location to hold these detainees in part because of its location: isolated, surrounded by ocean and mountains, and far from American families. The sites the president wants to transfer these terrorists to are right in the middle of American communi-

ties. In my home state, the site under consideration is within five miles of a dozen schools.

We already have a state-of-the-art facility built to hold these detainees; spending untold millions to upgrade an old facility or build a new one that puts a target on American communities simply doesn't make sense.

Furthermore, concerns over the treatment of these terrorists are simply misguided. The detention facilities at Guantánamo are run by dedicated members of our Armed Forces, who treat each detainee with respect. When I traveled to Guantánamo in October, I learned that each detainee has access to his own DVD player and wireless headphones, as well as a **communal** PlayStation.

The president may want to ignore Congress because he doesn't like our answer on this, but the Constitution doesn't afford him that luxury. Guantánamo must stay open—the American people have spoken.

—SENATOR TIM SCOTT  
Republican of South Carolina





# Should Felons Be Allowed to Vote?

Many states restrict or deny voting rights to those convicted of serious crimes

**F**or several years, the U.S. Justice Department has been urging states to repeal laws that prevent felons from voting. A felon is anyone convicted of a felony—a crime that usually involves theft or violence, or both.

Laws that prohibit felons from voting have been found to be constitutional. In 1974, the U.S. Supreme Court upheld California's policy of prohibiting felons from voting because, it said, the 14th Amendment allows voting rights to be denied "for participation in rebellion, or other crime." Most states have adopted some kind of voting restrictions for felons, with many allowing voting once they've served their sentence. Only two states—Vermont and Maine—have no restrictions.

Analyze the arguments.

Cast your vote and see instant results.



**YES** When the United States was founded as an experiment in democracy two centuries ago, it was a very limited experiment. The Founding Fathers decreed that women couldn't vote. They also denied this fundamental right to blacks, poor people, illiterates, and people with felony convictions.

Today, all but the last of these groups have won the right to vote. This leaves nearly 6 million people with felony convictions barred from the electoral process.

State laws on whether people with felony convictions can vote vary widely. In 12 states, a felony conviction can result in a lifetime voting ban. That means an 18-year-old convicted of first-time felony drug possession in Florida or Virginia who successfully completes a treatment program may never vote again.

There need to be consequences for people who break the law, but punishment for a crime shouldn't deny basic rights of citizenship. People convicted of crimes can still

get married or divorced, or buy and sell property. A democratic society doesn't impose character tests on fundamental rights.

Felony disenfranchisement policies disproportionately affect minorities. Nationally, one in every 13 black adults can't vote because of a felony conviction. In two states—Florida and Virginia—one in five black adults can't vote.

Denying the right to vote is also counterproductive to public safety. When people return home from prison, they're expected to work, pay taxes, take care of children, and be responsible citizens. People who feel they have a stake in their community will be less likely to harm their neighbors.

Denying the right to vote sends a message that these individuals are second-class citizens. This is hardly a good way to encourage law-abiding behavior. It also suggests that we are still not a full-fledged democracy.

—MARC MAUER  
Executive Director, The Sentencing Project

**Criminal punishment shouldn't deny basic rights of citizenship.**

**NO** Felons shouldn't be allowed to vote until they have completed their sentences, paid restitution, and proved they've learned their lesson.

Automatically restoring felons' right to vote when they've completed their punishment—as 38 states do—isn't in the best interests of felons or the public. Currently, there are 12 states where people convicted of at least some crimes are permanently deprived of their right to vote unless the state grants an exemption to an individual after a waiting period.

The waiting period gives ex-cons a chance to start over and motivates them to establish a track record of responsible behavior. An application process provides the opportunity to review each felon's behavior after release to determine whether he or she has changed his or her ways.

This is important because, according to the Justice Department, the recidivism rate—the rate at which felons commit new crimes—is alarmingly high, more than 50 percent for many types of offenders.

**Should those who break the law be able to shape laws with their votes?**

Given that so many felons end up back in jail, having a waiting period is perfectly sensible. Do we really want individuals who have intentionally and knowingly broken the law helping decide with their votes what those laws should be?

Voting rights aren't the only rights felons lose in most states. They also lose their right to run for public office, serve on juries, obtain professional licenses, or own guns. If felons deserve automatic restoration of their voting rights because they've "paid their debt" and it will help "reintegrate" them into civil society, shouldn't all their rights be restored?

Felons should have the opportunity—and an incentive—to prove they deserve to regain their right to vote. All too many of them fail that test and go back to prison. States should have the right to decide when, and under what conditions, convicted felons deserve to regain rights they lost as a result of their own wrongdoing.

—HANS VON SPAKOVSKY  
Senior Legal Fellow, Heritage Foundation





Severe flooding in Majuro, the capital of the Marshall Islands



# FEELING THE HEAT

**Whether it's record temperatures, rising seas, or disappearing rivers, the effects of climate change are already being felt in a growing number of countries** BY PATRICIA SMITH

ANALYZE THE ARTICLE

**L**inber Anej lives in the Marshall Islands, a tiny nation in the Pacific Ocean that's slowly but surely being swallowed by the sea. Every day, Anej joins a group of men and boys who wade into the water at low tide and gather chunks of concrete and metal scraps to rebuild a seawall in front of his home.

It's a losing battle. The temporary barrier is no match for the rising tides that regularly flood the shacks and muddy streets with salt water and raw sewage. "It's insane, I know," says Anej, 30, who lives with his family of 13 in a four-room house. "But it's the only option we've got."

Standing near his house, he says,

"I feel like we're living underwater." Thanks to climate change, it may not be long before the Marshall Islands are literally underwater, most scientists agree. That's because the rise in Earth's temperature causes a host of side effects, including flooding from rising seas, severe drought, and more destructive weather in general.

With low-lying nations like the Marshall Islands already feeling the effects of climate change on a daily basis, the world has started to take action after many years of delays. In December, the U.S. and 194 other nations agreed to a landmark accord (see box, p. 17) that commits them to lowering the greenhouse gas emissions that scientists say are heating up the planet.

The goal is to try to prevent the worst effects of climate change from happening.

Those effects are already evident around the world (see map, p. 16), according to scientists. In Bangladesh, rising sea levels have forced millions to leave coastal villages along the Bay of Bengal. In Mali, an impoverished African country, drought is making farming increasingly difficult. And in the northwestern U.S., the Pacific Ocean is encroaching upon lands the Quinault Indian Nation has lived on for thousands of years.

In January, weather researchers confirmed that 2015 was the hottest year worldwide since record keeping began in the 19th century, eclipsing 2014, which previously held the record. The vast

majority of scientists say human activities are to blame.

Despite accumulating evidence, however, there's still widespread skepticism in the U.S. about whether climate change is real. About a third of Americans say it isn't a serious threat, and many Republican lawmakers are skeptical.

### 'Evidence Is Overwhelming'

But 97 percent of climate scientists say the problem is urgent, according to a 2014 report by the world's largest scientific organization, which warned that the world was running out of time to deal with climate change.

"The evidence is overwhelming: Levels of greenhouse gases in the atmo-

sphere are rising," said the report, by the American Association for the Advancement of Science. "Temperatures are going up. Springs are arriving earlier. Ice sheets are melting. Sea level is rising. The patterns of rainfall and drought are changing. Heat waves are getting worse."

How did we get into this situation? Scientists say the burning of fossil fuels like oil and coal—mostly from cars and power plants—has caused a buildup of carbon dioxide and other gases that trap heat in the atmosphere. There are other sources too: Cows raised for meat or dairy production, for example, emit methane gas during digestion.

These invisible gases let sunlight through but prevent some of the



resulting heat from radiating back out to space. Because they behave like the panes in a greenhouse, they're called greenhouse gases, and their influence on Earth's temperature is called the greenhouse effect. The higher the concentration of greenhouse gases, the warmer the planet gets.

### Severe Weather

The level of carbon dioxide, the main greenhouse gas, is up 41 percent since the Industrial Revolution in the early 19th century. If current trends continue, it could double in a few decades. Already, the planet has warmed 1.4 degrees Fahrenheit since the 1800s.

That may not sound like much, but many scientists see links between warmer global temperatures and more severe weather. For example, they say the prolonged drought in California has been intensified by climate change. And one of the most worrisome effects may be the melting of much of the Earth's ice in the polar regions, which is likely to raise sea levels and flood coastal regions.

Ironically, some of the countries that have contributed the least to the planet's warming—because they're poor and have fewer cars and power plants—are among those suffering most from the effects.

In Mali, climate change has raised temperatures and sharply reduced rainfall. With more than 80 percent of the population dependent on agriculture for survival, the lack of rain seriously threatens food supplies.

"In Mali, we are facing droughts and a coming **desertification**; we have a rainy season which went from a six-month duration to a month and a half in just a few years," says Maïga Sina Damba, a former government minister. "So climate change is a daily life issue for us."

With an annual per capita income of \$660 last year and more than 43 percent of its population living in poverty, Malians don't have the tools to adapt to their changing environment.

"I saw with my own eyes the River Niger vanish into the sands, as the months went by," says Mali's president, Ibrahim Boubacar Keita. The Niger River

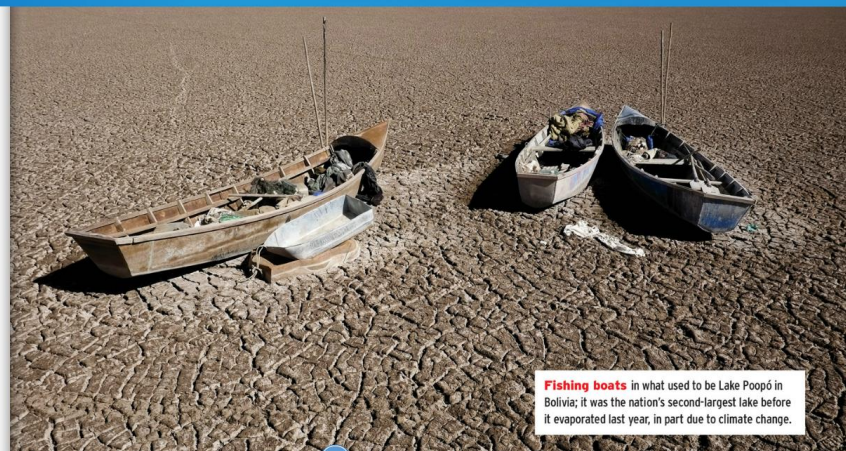
is the third longest in Africa, and it supports 112 million people in nine countries.

While Mali's problem is not enough water, in the northwestern U.S., the problem is too much water. The Quinault Indian Nation may abandon its small village on the outer coast of Washington's Olympic Peninsula because the rising Pacific Ocean threatens to engulf it. For now, a seawall is protecting the village, but a \$60 million plan to move the entire village further inland is being considered.

### An Underwater Cemetery

The Marshall Islands faces a similar problem. Most of the nation's 1,000 or so islands, located in the North Pacific, near the equator, are less than 6 feet above sea level—and few are more than a mile wide.

In the capital, Majuro, waves have overtaken a seaside cemetery; about 10 rows of coffins and headstones have washed out to sea. People have begun burying their dead in above-ground concrete tombs, but even those are now threatened by rising waves. Farmers are



**Fishing boats** in what used to be Lake Poopó in Bolivia; it was the nation's second-largest lake before it evaporated last year, in part due to climate change.

also struggling with salt water soaking their fields and killing their crops.

If climate change causes sea levels to rise further, islanders who today experience **deluges** of tidal flooding once every month or two could see their homes unfit for human habitation within decades.

## THE PARIS CLIMATE DEAL

The climate deal struck in Paris in December has the backing of 195 nations, including the United States. The goal of the Paris Accord is to prevent the worst predicted effects of climate change from happening. Here's how it's supposed to work.

- Every country has to publish a plan for cutting emissions, but the agreement doesn't say how those cuts should happen or how big they should be.
- Every five years, starting in 2020, nations must reconvene and present updated plans that would increase their emissions cuts.
- The countries' plans are voluntary, but the accord requires them to publicly monitor and report their actions, which is intended to create a system of global peer pressure.
- Unlike previous climate deals, the Paris Accord has the same requirements for developed countries like the U.S. and developing countries like China.

from villages near the Bay of Bengal.

John Pethick, a former professor at Newcastle University in England, analyzed decades of tidal records and found that high tides in Bangladesh are rising 10 times faster than the global average. He predicts that seas in Bangladesh could rise as much as 13 feet by 2100, four times the global average.

Tariq Karim, Bangladesh's ambassador to India, estimates that as many as 50 million people could flee the country by 2050 if sea levels rise as expected.

"We need a regional and, better yet, a global solution," Karim says. "And if we don't get one soon, the Bangladeshi people will soon become the world's problem, because we will not be able to keep them."

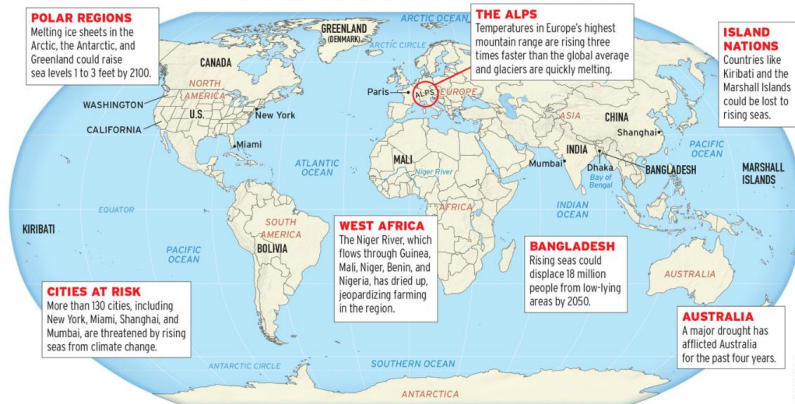
But many climate change experts fear time for action may be running out. Bill McKibben, a professor at Middlebury College in Vermont and a climate activist, is alarmed by rising average temperatures. If the Earth gets too hot, there may be a point of no return when it comes to preventing the worst effects on humans.

"We're living through history," says McKibben, "and not the good kind." •

*With reporting by Coral Davenport, Gardener Harris, and Lilia Blaise of The New York Times.*

## A GLOBAL THREAT

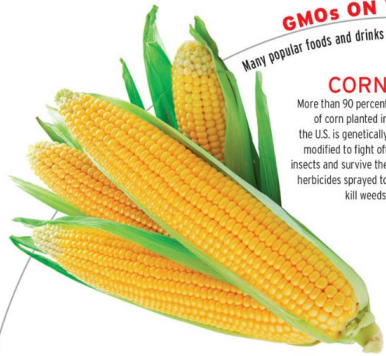
Scientists are documenting the effects of climate change around the world





**GMOs ON YOUR PLATE**

Many popular foods and drinks contain genetically modified organisms



**CORN**

More than 90 percent of corn planted in the U.S. is genetically modified to fight off insects and survive the herbicides sprayed to kill weeds.



**PIZZA**

Some animal-derived ingredients in pizza, like cheese and meat, can contain GMOs if the animals were fed genetically modified corn, soy, or alfalfa.

**THE BATTLE OVER** **GMOs** (GENETICALLY MODIFIED ORGANISMS)

Are GMOs the answer to feeding a hungry world, or Frankenfoods that put the environment—and us—at risk? BY ALESSANDRA POTENZA



**SODA**

Most sodas are made with high-fructose corn syrup—which is likely to come from genetically modified corn—or sugar, which is likely made with genetically modified sugar beets.



**APPLES**

The U.S. government recently approved a genetically engineered apple that doesn't brown after being sliced or bruised.



**CEREAL**

Kellogg's and General Mills are among the cereal makers that have acknowledged using GMOs in some of their products. Any cereal may include genetically modified ingredients like corn, soy, or sugar made from genetically engineered crops.

Watch a video on the first genetically modified tomato.

ANALYZE THE ARTICLE

Thousands of people recently took to the streets in 400 cities worldwide. The cause of their anger? Not oppressive governments, unemployment, or income inequality, but corn that's bred to fight off insects. In short, GMOs—genetically modified organisms.

In Los Angeles, protesters chanted, "Hell no GMO!" In Strasbourg, France, demonstrators held a minute of silence in front of the European Parliament. And in Rio de Janeiro, Brazil, people accused GMO producers of "bioterrorism."

GMOs are organisms whose DNA has been combined with a gene from an unrelated species to produce a desired trait. Some crops are genetically modified to survive herbicide sprays that kill weeds. Others are engineered to be more nutritious: A pink pineapple awaiting U.S. government approval has the same antioxidant that makes tomatoes red and may help prevent cancer. In November, the U.S. Food and Drug Administration approved the first genetically modified animal: a salmon engineered to grow to market size in about half the time as a regular salmon.

But GMOs haven't been very popular lately. Only 37 percent of Americans think they're safe to eat, according to the Pew Research Center. McDonald's recently refused to use a new genetically modified potato that produces less of a cancer-causing chemical when fried. Chipotle dropped GMOs from its U.S. offerings. And General Mills stopped using GMOs in original Cheerios after a yearlong campaign by environmentalists.

**'I Don't Think We Know Enough'**

While some see GMOs as Frankenfoods that hurt the environment, and us, others see them as the most promising solution to feeding the world's population, which is expected to skyrocket from 7 billion today to 10 billion by 2050. The government agencies regulating GMOs in the U.S. say they're safe. But some scientists and consumers argue that GMOs haven't been around long enough for us to know their long-term health effects.

"We're putting genes into crops that have never been in the food supply before," says Doug Gurian-Sherman, a scientist at the Center for Food Safety, a nonprofit organization opposing GMOs. "I don't think we know enough."

The first GMO, a tomato that ripened without softening, was sold in the U.S. in 1994. (It was later taken off the market.) In 1996, soybeans and corn that resist herbicides and kill pests were introduced. Both crops proved extremely popular with farmers. Today, 94 percent of soybeans and 93 percent of corn planted in the U.S. is genetically altered—and most of it ends up in processed foods.

According to the Grocery Manufacturers Association, up to 80 percent of what you eat has GMOs—but you might not know it. Unlike the European Union and places like India and Russia, the U.S. doesn't require foods with GMOs to be labeled.\* That



A salmon that's genetically modified to grow fast, next to a regular salmon roughly the same age

bothers Lena Romaldini, a 21-year-old senior at the University of New Hampshire, who tries to buy only organic foods. She fears that altering the DNA of plants is a bit like playing God—with a host of unwanted consequences for the environment. "I think we're just digging ourselves into this hole that we're not going to be able to get out of," she says.

But GMO proponents say people like Romaldini don't have all the facts. "[GMOs] have positive environmental effects," says Yves Carrière, a GMO expert at the University of Arizona. "Scientifically, they are positive and safe."

**A Boon to Farmers?**

Carrière argues that bug-killing crops are beneficial because they reduce the use of insecticides, which can harm people and the environment. (Between 1996 and 2011, bug-killing corn reduced insecticide use in corn production by 45 percent worldwide.) Developing crops that can survive dry climates, others say, could help us grow food as climate change makes the planet more prone to droughts. Such crops could make a difference for drought-stricken states like California.

Marlaina Johnson, a 16-year-old who works on her family dairy farm in Orange, Virginia, says that GMOs are key to farmers. Her family depends on the genetically modified corn and soybeans they grow to feed their 170 milk cows. "[GMOs] have helped our production," she says.

But some scientists fear GMOs hurt the environment. Herbicide-resistant crops have allowed farmers to use more herbicides to kill weeds. That has had serious unintended consequences, says Gurian-Sherman at the Center for Food Safety. Monarch butterfly populations have declined by 90 percent because their food source, a weed called milkweed, has been decimated, he says. And like insecticide, herbicide can harm people.

Whether GMOs prove to be a temporary experiment depends on who you ask. Some think consumers will have the final word on whether GMOs succeed or fail. Others believe that, with a warming world and a growing population, we don't have a choice.

"I think that [genetically modified] crops are here to stay," says Michael Gray, a GMO expert at the University of Illinois. "They do offer enormous potential. But they are just a tool, and we need to keep that in mind." •



Chipotle went GMO-free last year.

PREVIOUS PAGE: SHUTTERSTOCK; CORN: SOYAN; PHOTO: COMBETTY IMAGES; PIZZA: DANASAR; SPECIALTY FRUITS: APRIL; CREATIVE: CREDIBILITY IMAGES; KEREKALL; THIS PAGE: PAUL BARRON/THE NEW YORK TIMES; SALMON:

\*Vermont passed a GMO labeling law in 2014 that is set to take effect in July. The law has been challenged in court.



NATIONAL

# The Gun DEBATE

ANALYZE THE ARTICLE

Mass shootings have reignited the political fight over gun control. Here's what you need to know to understand the issue.

BY PATRICIA SMITH

Last month, following a spate of mass shootings in the U.S., a tearful President Obama announced that he was using his executive powers to try to stem gun violence. The modest steps he announced—the only ones he could take without the approval of Congress—included trying to expand the number of gun sellers required to conduct criminal background checks, pledging to hire more people to carry out those checks, and ordering better tracking of lost guns.



President Obama teared up at the White House last month when he spoke about gun violence.

The president's move came a month after a terrorist shooting in December in San Bernardino, California, left 14 people dead. That and other recent shootings, including one in October at a community college in Oregon in which nine people died, have reignited the national debate over gun control.

The U.S. has more guns per capita than any other developed country—and far more gun violence (see chart, p. 11). In 2014, there were more than 33,000 firearm-related deaths in the U.S. The question is whether stricter gun control laws would help lower that number. Congress, like the nation, has long been divided and hasn't passed major gun control legislation in the past two decades.

Here's what you need to know to understand the ongoing debate.

Watch a video on the Second Amendment.

The New York Times UPFRONT • UPFRONTMAGAZINE.COM

## What is gun control?

"Gun control" is a broad term that covers many kinds of restrictions. It can include regulations on what kinds of firearms can be bought and sold, who can possess or sell them, and where and how they can be stored or carried. Gun control can involve the responsibilities a seller has to check a buyer's background and whether a gun sale should be reported to the government. The term also covers limits on types of ammunition and the size of magazines (the part of the gun that holds ammunition).

In recent years, gun control debates have focused on three issues: background checks for buyers, the laws regulating who can carry weapons in public, and the kinds of guns available for purchase. One of the most contentious arguments is over who

should be allowed to possess assault rifles—military-style weapons capable of firing multiple bullets quickly; assault rifles have been used in many recent mass shootings.

## What's the state of federal gun control today?

Federal law prohibits specific groups of people from owning firearms. The list includes convicted felons, those diagnosed with certain types of mental illness, and immigrants without legal status.

The Brady Handgun Violence Prevention Act, passed by Congress in 1993, requires licensed gun dealers to conduct background checks on potential buyers through an F.B.I. database. This is meant to prevent the sale of guns to someone who's prohibited from owning one.

But the system has major holes in it. Perhaps the biggest is that many small-scale gun sellers claim to be "hobbyists," who aren't required to conduct background checks. Because many of these sellers do business at gun shows, this is often referred to as "the gun show loophole." Another problem: Most people with serious mental illness never receive a diagnosis, so they can still own guns legally.

From 1994 to 2004, federal law banned the sale of many types of assault rifles and high-capacity magazines. Since the law expired, repeated efforts to renew the ban in Congress

Menu board for a restaurant featuring items like Steak & Quail, Steak & Shrimp, and various steaks and sandwiches.



Gun rights activists get lunch after a rally in Houston to support Texas's new open-carry law. The law took effect January 1.

DOUG MILLER/THE NEW YORK TIMES; PRESIDENT OBAMA: JIMMY HANSON/HUSTON CHRONICLE (COURTESY)

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have failed, but several states have their own bans on assault weapons.

### Where does the American public stand?

Gun control is one of the most sharply divisive issues in the U.S. today. When Americans are asked whether they favor stricter gun laws, they're about evenly divided, according to a recent Pew Research Center poll.

Most Democrats and city dwellers favor more restrictions. Most Republicans and people in rural areas—where guns are more common—favor protecting gun rights.

But there's more consensus on some specific measures: When asked in the Pew poll whether private gun sales should be subject to background checks, 88 percent of Democrats and 79 percent of Republicans said they should.

### What are the arguments against gun control?

Gun rights advocates see weapon possession as a matter of individual rights. They say that people have the right to arm themselves for hunting, self-defense, and sport—or just because they want to.

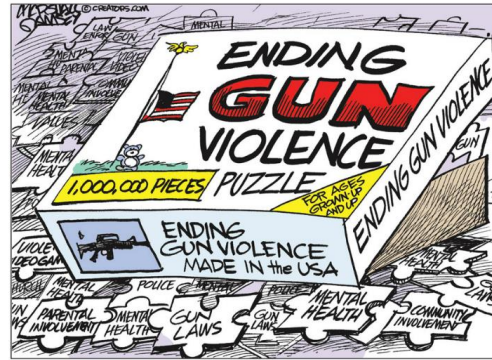
Rather than being a danger, gun owners say, weapons can make society safer. They say guns give people the power of self-defense—and dissuade criminals from victimizing people who might be armed.

"The only thing that stops a bad guy with a gun is a good guy with a gun," Wayne LaPierre of the National Rifle Association (N.R.A.) said in 2012.

The debates often come down to the Second Amendment, which was adopted in 1791. Americans have endlessly argued over its language and context: "A well regulated Militia,\* being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed."

Gun rights advocates say that means there's an individual right to gun possession. Gun control advocates say it means the people's collective right, through a militia.

For generations, the U.S. Supreme



Court avoided directly answering the question. But in 2008 and 2010, the Court ruled, in two 5-to-4 decisions, that the Second Amendment protects an individual's right to keep a loaded firearm for self-defense. The rulings have only fueled the disagreement about what kinds of limits society can place on gun ownership.

### What are the arguments in favor?

While gun rights advocates say arming people makes for a safer society, people who favor gun control say the opposite is true: The more people carry weapons, the more likely it is that an everyday dispute can turn deadly.

In 2014, there were more than 33,000 gun-related deaths in the U.S. About two-thirds were suicides and about a third were homicides.

Gun control supporters cite figures that equate high rates of gun ownership with more gun violence. According to a 2007 report called the Small Arms Survey, there were 88.8 guns per 100 people in the U.S., more than in any other developed country. (Switzerland, second on the list, had 45.7 guns per 100 people.) A United Nations study found that the U.S. had 3.2 firearm homicides per 100,000 people in 2010, the highest among developed nations. (Canada, the next highest, had 0.5 per 100,000.)

Supporters say tougher laws in other countries keep gun deaths down. Australia, for example, had 13 mass shootings from 1979 to 1996. After a gunman killed 35 people in 1996, the country passed strict laws banning many weapons. It hasn't had a mass shooting since.

Closing gun control loopholes would still allow law-abiding people to have firearms, while resulting in far fewer deaths, gun control advocates say. In other words, they argue, it's not a question of disarming the public, but a matter of where to draw sensible limits.

### Why are gun control laws so controversial?

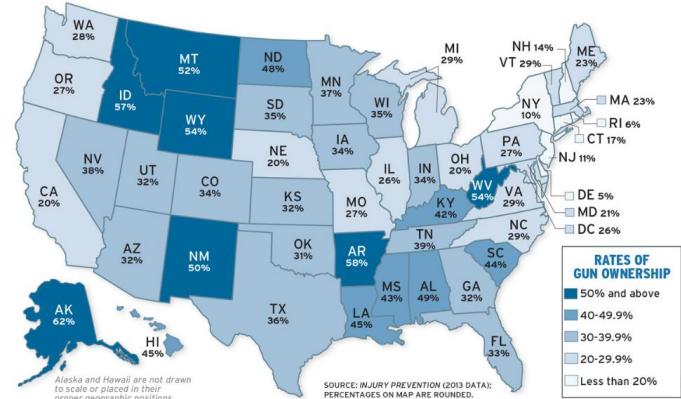
For many politicians, particularly those in rural states, supporting gun rights is critical to getting re-elected. Also, the N.R.A. and other gun rights groups are powerful and well-funded, and many politicians fear them. After Colorado enacted new gun controls in 2013, these groups, known as the gun lobby, successfully petitioned for a special recall election targeting two Democratic state senators who'd supported the measures. The senators were voted out of office.

Fearing that any additional restrictions will lead to an outright ban on weapons, the gun lobby has become more unyielding in recent years, opposing measures

MARSHALL BARNER/GREYSCALE SYNCHRONIC

## GUN OWNERSHIP BY STATE

Overall, about 30 percent of Americans own guns, but the rates vary widely among states



Alaska and Hawaii are not drawn to scale or placed in their proper geographic positions.

SOURCE: INJURY PREVENTION (2013 DATA); PERCENTAGES ON MAP ARE ROUNDED.

### THE U.S. VS. OTHER COUNTRIES

Annual gun-related homicides per 100,000 people in selected countries

Honduras	68.43
Mexico	9.97
Philippines	8.93
United States	3.20
Egypt	.57
Canada	.51
Germany	.19
Australia	.14
England/Wales	.07
Japan	.01

SOURCE: THE WASHINGTON POST, 2012

like more-stringent background checks, which it once supported.

Over the past generation, American politics has become more partisan and regional divisions more rigid. Republicans have become more uniformly opposed to gun laws at a time when they control Congress and most state houses.

### What have states done?

Most gun control exists at the state level. Some states have stricter background check systems than the federal one; some require a license or permit to own a gun, but most don't. California, Hawaii, Illinois, Maryland, Massachusetts, New Jersey, New York, and Rhode Island have the most restrictive laws. But in other parts of the country there's much more resistance to gun laws. The result is that in recent years, states have gone in opposite directions.

After the shooting at Sandy Hook Elementary School in Newtown, Connecticut, which killed 20 children and 6 adults, New York and Connecticut

JIM MCNAMON

But other states have eased restrictions. In Texas, a new "open carry" law allows people to carry handguns openly in most public places. In Arkansas, voters can bring guns into polling places. In Kansas, gun owners no longer need a license to carry concealed weapons.

The wide variety of regulations in different states allows guns to flow freely across state lines. For example, New York has very strict gun laws, but more than two-thirds of guns used in crimes in New York City come from other states with weaker gun laws.

Only federal legislation could address that problem, and that looks increasingly unlikely.

"We are deeply polarized as a country," says Larry Sabato, director of the University of Virginia Center for Politics. "Gun control is now part of the cluster of social issues where compromise has become virtually impossible." •

With reporting by Richard Pérez-Peña of The New York Times and by Bryan Brown.



COVER STORY



Kim Jong Un inherited control of North Korea from his father in 2011.

# DOES NORTH KOREA HAVE THE H-BOMB?

ANALYZE THE ARTICLE

Its most recent nuclear test is just the latest cause for alarm about this isolated Communist regime

BY PATRICIA SMITH

North Korea is one of the most belligerent—and unpredictable—countries on Earth. So when its young dictator Kim Jong Un announced last month that his nation had exploded a hydrogen bomb for the first time, it was hardly a surprise. But it did alarm the entire world.

The explosion of a hydrogen bomb “could potentially shake up the security landscape of Northeast Asia and fundamentally change the nature of the North Korean nuclear threat,” said South Korean President Park Geun-Hye.

A hydrogen bomb is much more powerful than a conventional nuclear weapon, which North Korea has detonated three times before, and would represent a significantly increased risk—if North Korea’s claims are true. But there’s wide skepticism about those claims. Officials in the U.S. and South Korea say the data from the impact of the explosion is not what you’d expect



from a hydrogen bomb; it was more in keeping with that of a traditional atomic device.

But even if last month’s nuclear test wasn’t a hydrogen bomb, it was yet another reminder of the threat that a nuclear-armed, totalitarian regime like North Korea poses to America’s ally South Korea and to the rest of the world. And it’s further proof that North Korea

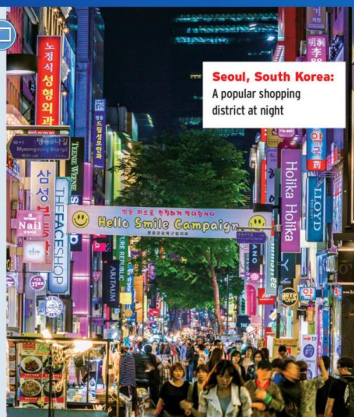
Watch a video on North and South Korea.



continues to work on advancing its nuclear capabilities, despite international sanctions and ongoing pressure to abandon its program.

"This is North Korea thumbing its nose at the international community," says Richard Bush, a North Korea expert at the Brookings Institution, a think tank in Washington, D.C. "It reminds us that North Korea's ambition is to be a country with nuclear weapons."

For the U.S., North Korea's latest nuclear test is unwelcome news. It comes just months after the U.S. and five other nations brokered a deal with Iran to curtail its alleged nuclear weapons program.



**Seoul, South Korea:**  
A popular shopping district at night

## South Korea's Rise

The other country on the Korean Peninsula is the polar opposite of North Korea

### Seven Decades of Conflict

North Korea has a long history of antagonizing the international community, and the U.S. and North Korea have been at odds for seven decades. The roots of the conflict go back to the end of World War II.

In 1945, the Soviet Union occupied Korea north of the 38th parallel and installed a Communist regime, while U.S. and Allied forces controlled what became South Korea.

The North later invaded the South, and the Korean War (1950-53) followed. That conflict, in which 34,000 Americans died, ended in a stalemate, leading to two very different nations (see "South Korea's Rise," above).

South Korea developed into a thriving democracy with a strong, high-tech economy. It's long been a staunch American ally, with 28,000 U.S. troops

stationed there to protect South Korea. North Korea, on the other hand, became a Communist country and one of the most repressive and isolated regimes in the world. When Kim Jong Un, then in his late 20s, inherited the dictatorship after the 2011 death of his father, Kim Jong Il, there was hope that he might modernize the country and improve relations with the inter-

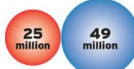
national community. But he's proved to be as ruthless as his father and his grandfather, who founded the regime. He's continued to test missiles and even threatened a nuclear strike against South Korea and the United States. In 2013, Kim ordered the execution of his uncle—his second-in-command and mentor—for allegedly plotting a coup. There were also unconfirmed reports

stationed there to protect South Korea. North Korea, on the other hand, became a Communist country and one of the most repressive and isolated regimes in the world. When Kim Jong Un, then in his late 20s, inherited the dictatorship after the 2011 death of his father, Kim Jong Il, there was hope that he might modernize the country and improve relations with the inter-

## Side by Side

North Korea South Korea

### Population



### Life expectancy



### Per capita GDP



### Number of cellphones



### Miles of paved roads



SOURCE: THE WORLD FACTBOOK (C.I.A.)

that Kim had his uncle's entire family—including children—executed as well.

Under Kim's rule, North Koreans continue to live in a totalitarian "Big Brother" state, in which even thoughts are controlled—as George Orwell depicted in his novel 1984. Ordinary citizens have no Internet access, and TVs and radios receive only government channels. Homes are equipped with loudspeakers that blare state-sponsored slogans and sanitized news all day long and can't be shut off.

Food is scarce. When the Soviet Union collapsed in 1991, North Korea's economy, which had long relied on Soviet aid, began a catastrophic decline. While millions have starved, the regime has spent billions on a massive army and nuclear weapons program.

Anyone who dares to challenge the government is treated **mercilessly**. A 2014 United Nations report accused the Kim regime of committing "crimes against humanity" and estimated that there are up to 120,000 political prisoners in four camps. Starvation, the report says, has been used to control and punish North Koreans, both in the camps and in the general population.

With so many problems at home, Kim seems to have calculated that cementing the country's status as a nuclear power will boost his standing and distract North Koreans from the dire state of the nation's economy.

"The benefits of being a nuclear power—to deter external threats and prove strength domestically—must in his mind outweigh the costs of facing yet another round of condemnation and sanc-



**Grass for lunch:** Amid widespread famine, North Korean girls collect grass to eat in the village of Jung Pyong Ri in 2010.

**'With this test, [Kim] projects power and claims to enhance national security.'**

tions, which [North Korea] is used to by now," says John Delury, a North Korea expert at Yonsei University in Seoul. "So with this test, he projects power and claims to enhance national security."

### A Bargaining Chip?

Many analysts believe that North Korea may be trying to use its nuclear power as a bargaining chip to get the international community to agree to send more aid. Others suggest that North Korea genuinely fears an attack by the U.S. or South Korea and sees the nuclear tests as a **deterrent**. Highlighting a perceived threat from abroad is a favorite tool of the North Korean government to encourage domestic unity.

But the latest nuclear test has infuri-



**Soldiers** from North Korea (in brown) and South Korea in the Demilitarized Zone (DMZ) between the two nations

ated China, North Korea's only major ally.

"China strongly opposes this act," says Hua Chunying, a spokeswoman for the Chinese Ministry of Foreign Affairs. "China will firmly push for denuclearization of the Korean Peninsula."

In 2014, trade between China and North Korea totaled \$6.4 billion and included shipments of critically needed resources like oil and food, so the threat that China might suspend, or even reduce, trade should concern North Korean leaders. But at the same time, China is in a bit of a bind.

"Putting more economic pressure on North Korea might also lead to the fall of Kim, the collapse of the regime, and all kinds of unpredictable situations China does not wish to see," says Cheng Xiaohu, a professor of international relations at Renmin University in Beijing.

Just after the most recent nuclear test, the United Nations Security Council condemned North Korea and met to consider new sanctions against the Kim regime—even though it was becoming increasingly clear that his government hadn't tested a hydrogen bomb, as it claimed.

Bush, the North Korea expert at Brookings, says that even though Kim appears to have exaggerated what his scientists accomplished, it's not a time for other nations to be complacent.

"We should not just breathe a sigh of relief because it wasn't a hydrogen weapon and go back to business as usual," he says. "They are making progress; this was an advance." •

With reporting by Choe Sang-Hun and Javier C. Hernández of *The New York Times*.

**Today** When Kim Jong Un inherited control from his father in 2011, there were hopes he would mend relations with the world. But he continues to threaten other nations, including South Korea and the U.S.

## KOREA KEY DATES

**1945** At the end of World War II, Korea is divided, with Soviet troops occupying the north and U.S. troops in the south.

**1950-53** The Korean War, in which 34,000 Americans and more than 2 million Koreans die, ends in a stalemate, with the country still divided.

**1995** While South Korea's economy is booming, North Korea suffers from a terrible famine when its state-run economy can't produce enough food; hundreds of thousands die.

**2006** North Korea tests its first atomic weapon despite efforts by the U.S. and the U.N. to prevent it from becoming a nuclear power.



INTERNATIONAL

ISIS fighters during a military parade in the northern Syrian town of Tal Abyad



# Can ISIS Be Stopped?

An international coalition vows to defeat the terrorist group, but the challenges are enormous BY BRYAN BROWN

If there's one thing world leaders can agree on, it's that ISIS must be crushed.

Over two weeks this fall, the terrorist group killed nearly 400 people in attacks in three different countries: A Russian passenger jet was blown up over Egypt; a calm Friday evening in Paris was shattered by terrorists detonating explosives and firing into crowds at restaurants and a concert; and suicide bombers unleashed the deadliest attack in Beirut,

Lebanon, in 25 years. And in December, a Muslim couple in the U.S., claiming allegiance to ISIS but apparently acting on their own, killed 14 people and wounded 21 others in San Bernardino, California.

These are just a few of the **atrocities** that ISIS—the Islamic State of Iraq and Syria, also known as the Islamic State or ISIL—has been linked to in recent years. The radical Islamist group has seized large swaths of Syria and Iraq, where it's trying to create its own state (see map, p. 10).

There, it has imposed laws based on a strict interpretation of Islam.

ISIS's stated ambition is to re-establish an Islamic **caliphate** like the ones that ruled the Middle East and North Africa in past centuries. But recently it's also made it clear that it intends to wage a holy war with the West. After the attacks in France, ISIS issued a warning: The events were merely the "first of [a coming] storm."

Now the world is vowing to fight back. ISIS "cannot be tolerated," President

Obama declared following the attacks in France, "It must be destroyed."

The day after the Paris attacks, representatives from 17 countries met in Vienna, Austria, and promised to coordinate their efforts to defeat ISIS.

## Executions & Beheadings

But that will require uniting longtime rivals such as the U.S. and Russia, and Iran and Saudi Arabia. Beyond that, it means addressing a complex set of problems in the Middle East.

ISIS is the product of recent chaos

in the Arab world, and it also feeds off centuries of sectarian strife within Islam. ISIS followers are Sunni Muslims, and the group considers Islam's other major sect, the Shiites, to be **infidels**. That's why ISIS sees the Shiite-led governments of Iraq and Syria as enemy states.

In 2011, a civil war broke out in Syria, with many rebel groups—including some that had U.S. support—fighting against Syria's tyrannical Alawite\* president, Bashar al-Assad. ISIS, which began as an Al Qaeda **affiliate** in Iraq, took advantage of the chaos and started seizing territory

in Syria. With its brutal tactics—including on-the-spot executions and public beheadings of opponents—ISIS became the most powerful of the rebel armies there.

"As ISIS won victory after victory and took more and more territory, it attracted fighters from all over the world," says political scientist Karl Kaltenthaler of the University of Akron, in Ohio.

In December 2013, ISIS pushed back into Iraq, conquering territory about the size of Great Britain. ISIS terrorized regions under its control, forcing Christians and religious minorities to convert or die, and

Watch a video on the evolution of ISIS.

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\*Alawites are a sect of Shiite Islam.



selling thousands into slavery. It seized oil refineries and stole \$425 million from Iraq's central bank. Six months later, the group's leader, Abu Bakr al-Baghdadi, declared all land under its occupation the new caliphate of the Islamic State.

In many ways, ISIS has functioned as a real, organized state. It has proved adept at financing itself by selling oil, collecting kidnapping ransoms, and heavily taxing people within its territory.

Through sophisticated social media programs targeting **disaffected** Muslims around the globe, ISIS has attracted thousands of recruits worldwide—including an estimated 4,000 Westerners, about 250 of them American. As was apparently the case with the San Bernardino attackers, ISIS has inspired some people to carry out terrorist attacks in its name (see "A New Threat at Home," facing page).

#### 8,000 Airstrikes

It's clear that ISIS's influence is spreading. While most experts believe ending the Syrian war is key to stopping ISIS, tensions run high over how to do it.

Years of costly U.S.-led wars in Iraq and Afghanistan have left many Americans wary of getting stuck in another conflict. Although President Obama has refused to send ground troops to Syria, he authorized



**Mourning the victims** of the ISIS terrorist attacks in Paris; 130 people were killed.

bombing raids in August 2014. Since then, the U.S. and its allies have conducted more than 8,000 airstrikes on ISIS targets.

Until the most recent terrorist attacks, Obama's goal had been to "contain" ISIS within its territory. Some experts think that's the best way to gradually reduce its influence. But others blame Obama's caution for allowing the group to grow.

Most of the 2016 presidential candidates have called for a more aggressive fight with the enemy.

Republican Marco Rubio wants the U.S. and other nations to send ground troops. "We will only be able to protect our people at home if we defeat [ISIS] abroad," he says.

"Our goal is not to **deter** or contain

ISIS, but to defeat and destroy ISIS," says Democrat Hillary Clinton.

The challenge of getting American leaders to agree on how to fight ISIS is dwarfed by the problem of uniting the international community against it. The countries that met in Vienna want to stop the war in Syria, lay the foundations for a new government, and tackle ISIS. But among the parties involved, there's huge disagreement over critical issues, particularly relating to Syria.

Chief among them: the fate of Syrian President Assad. Russian President Vladimir Putin insists that Assad, his long-time ally, be part of any future Syrian government. The Shiite government of Iran also supports Assad.

For the U.S. and regional Sunni powers like Saudi Arabia and Turkey, however, keeping Assad in power is out of the question. The U.S. blames Assad for atrocities committed against Syria's people—including the use of chemical weapons and the relentless bombing of Syrian cities by his own air force. Despite their deep divisions, experts say the fact that these adversaries are meeting together to talk about ISIS is a step in the right direction.

But it will take much more than talking to defeat ISIS.

Graeme Wood of the Council on Foreign Relations in Washington, D.C.,



## A NEW THREAT AT HOME

An ISIS-inspired attack on American soil shows the terrorist threat has entered "a new phase"

**On the same day** she and her husband killed 14 people and wounded 21 at an office party in San Bernardino, California, Tashfeen Malik pledged allegiance to the Islamic State in a Facebook post.

Authorities declared the December 2 attacks by Malik and her husband, Syed Rizwan Farook, to be an act of terror apparently inspired, but not ordered, by ISIS (the Islamic State of Iraq and Syria).

The rampage was the first time terrorists linked to ISIS have successfully struck in the United States.

"The terrorist threat has evolved into a new phase," said President Obama, addressing the nation from the Oval Office several days after the attack. "As we've become better at preventing complex, **multifaceted** attacks like 9/11, terrorists turned to less complicated acts of violence like the mass shootings that are all too common in our society."

Obama said the U.S. would intensify airstrikes against ISIS in Syria and Iraq and reassured Americans that the growing



**President Obama** speaking to the nation from the Oval Office in December

coalition of nations vowing to defeat the terrorist group would soon produce results. But he also urged Americans not to give in to fear or be suspicious of all Muslims. And he reiterated his refusal to be dragged into another ground war in the Middle East.

Republican leaders and presidential candidates mocked the speech. House Speaker Paul Ryan called it "disappointing: no new plan, just a halfhearted attempt to defend and distract from a failing policy."

Juan Zarate, a counterterrorism official in the administration of President George W. Bush, says Obama's basic problem is that his message until now—that the U.S. is making progress against ISIS—seems contradicted by the recent spate of attacks linked to ISIS.

"If you're making progress, terrorist threats shouldn't be appearing on your shores," Zarate says. "This threat seems to call for war, but that's exactly what Mr. Obama does not want to do. It's a real dilemma." —Gardiner Harris and Michael D. Shear

believes the terrorists, who lack an air force and sophisticated weaponry, could be beaten on a battlefield. The problem, he says, is that kind of all-out military fight could backfire in the long run.

"ISIS has a story about what the war is: Muslims versus everyone else, especially Christians," Wood says. Simply crushing ISIS militarily might generate sympathy for them among angry Muslims around the world, he explains.

#### A Long Road Ahead

Most experts agree that defeating ISIS can't be accomplished solely with armies. It must involve cutting off ISIS's funding and creating stable and effective Middle Eastern governments and armed forces, as General Joseph Dunford, head of the U.S. Joint Chiefs of Staff, told Congress in July.

Ending terrorism itself will require an even greater effort, says Rami Khouri, a Middle East scholar at the American University of Beirut, in Lebanon. He says

#### Experts say ISIS can't be defeated solely with armies.

it means changing the repressive Arab governments—such as those in Egypt and Iraq—that for years have sowed a sense of hopelessness among their citizens.

"The terrible people who created Al Qaeda and ISIS did not come out of a **vacuum**," Khouri says. "Their movements came as a consequence of decades and decades of ordinary people in the Arab countries being subjected to continuous mistreatment by their own societies."

Jobless, subject to police brutality, and often jailed for religious or political activities, many Arabs have turned in desperation to militant Islam, Khouri says.

Even the most optimistic of observers see a long road ahead. Still, there are signs of progress: U.S.-led airstrikes have already allowed other rebel groups in Syria and the Iraqi army to reclaim some ground they'd lost to ISIS. The U.S. has

successfully targeted the largest source of ISIS's funding by bombing trucks carrying oil in Syria. President Obama is sending special forces into Iraq to direct further airstrikes and assist the Iraqi military and the Kurdish forces already battling ISIS.

Meanwhile, Secretary of State John Kerry and other diplomats are working hard behind the scenes to hammer out a plan to address the crisis in Syria and the larger problem of ISIS. No one knows exactly what that will look like or how possible it will be to implement.

The fight against ISIS is an uphill battle and a long-term project, says Anthony Cordesman of the Center for Strategic and International Studies.

"These are problems that don't go away," he says. "That doesn't mean you can afford *not* to fight ISIS. But at some level, the kinds of problems related to Islamic extremism are going to go on for a long time after ISIS." •

With reporting by Patricia Smith.



### ISIS KEY DATES

**2004** A year after the U.S. invasion of Iraq, a Sunni Muslim extremist group called Al Qaeda in Iraq forms to fight Americans and Shiite Iraqis.

**October 2006** The leader of Al Qaeda in Iraq establishes a new group called the Islamic State of Iraq (ISI).



**December 2011** The U.S. withdraws the last of its troops from Iraq, leaving Iraqi forces in charge of fighting militant groups.

**April 2013** ISI combines with a radical group fighting in Syria's civil war. Calling itself the Islamic State of Iraq and Syria (ISIS), the new group begins seizing territory in Syria.



**2014** ISIS seizes major cities in Iraq, including Falluja and Mosul, prompting a refugee crisis.

**November 2015** ISIS carries out terrorist attacks in Paris and Beirut, and downs a Russian plane in Egypt, making clear it's a major terrorist threat worldwide.





# Should Undocumented Immigrants Get a 'Path to Citizenship'?

**M**ost Americans agree that the nation's immigration system needs fixing. But Congress has been unable to pass immigration reform. The major sticking point has been what to do with the 11 million immigrants who are already in the United States illegally. Most Democrats, including President Obama, favor allowing undocumented immigrants to take steps to legalize their status and ultimately become U.S. citizens. But critics, including many Republicans, say that offering a "path to citizenship" is essentially giving amnesty to lawbreakers. Immigration reform is already an issue in the 2016 presidential campaign.

Analyze the arguments.

Cast your vote and see instant results.

**Leslye Osegueda** was born in Mexico and brought to the U.S. illegally at age 5. She's now 24 and a community organizer in Los Angeles.



## Undocumented Immigrants BY THE NUMBERS

Where they come from:

1. **MEXICO**  
6.8 MILLION
2. **EL SALVADOR**  
660,000
3. **GUATEMALA**  
520,000
4. **HONDURAS**  
380,000
5. **CHINA**  
280,000

SOURCE: DEPARTMENT OF HOMELAND SECURITY, OFFICE OF IMMIGRATION STATISTICS

**27%**

PERCENTAGE of the 42 million immigrants in the U.S. who are undocumented.

SOURCE: MIGRATION POLICY INSTITUTE

**8 million**

NUMBER of undocumented immigrants in the U.S. workforce.

SOURCE: PEW RESEARCH CENTER

**YES** Our immigration system is badly broken. Far too many people illegally cross our borders, and we turn away too many people who want to legally enter our country—people who could invent new technologies, create jobs, and boost our economy.

Perhaps the greatest challenge to immigration reform is this **knotty** question: What do we do with the 11 million undocumented people who live in the shadows, fearing deportation each day, most of them working to earn their sons and daughters a chance at the American Dream?

The status quo is unsustainable. Without reform, our immigration laws threaten to tear apart families and force our government to expend precious resources to deport millions. Without reform, these 11 million continue to live in a state of uncertainty and fear. The vast majority of them want to get right by the law, but there is no achievable pathway for them to do so.

That's why I've been fighting to pass immigration

**Without reform, our immigration laws threaten to tear apart families.**

reform. We need to modernize and fix our immigration system, to ensure that the door to America remains as open to future generations as it was for our ancestors. We also need to give the millions of undocumented workers a chance to settle their debt to society and earn legal status.

In 2013, the Senate passed a bill that would have done just that. Our reform bill would have established a tough but fair pathway to citizenship. By fulfilling reasonable requirements such as paying fines, learning English, and waiting their turn to be considered, these immigrants could become law-abiding citizens.

Unfortunately, the House of Representatives never even voted on this **comprehensive** immigration reform bill.

From my home in Brooklyn, I can see the Statue of Liberty, which welcomed my ancestors so many years ago. That statue is a symbol of hope to the world. For it to remain so, we must keep fighting to pass immigration reform, including a solution for undocumented immigrants who are already here.

**—SENATOR CHARLES E. SCHUMER**  
Democrat of New York

**NO** A pathway to citizenship for illegal immigrants is blanket amnesty that not only pardons those who've broken the law, but also rewards them. Rewarding lawbreakers by handing them the very thing they're after can only encourage more people to break the law.

In 1986, President Ronald Reagan tried this approach. At the time, I opposed the legislation that ultimately provided amnesty to 3 million immigrants who were in the U.S. illegally. Reagan said the measure was a one-time offer and that after that, the country's immigration laws would be vigorously enforced so there would no longer be a problem of a large population of people living here illegally.

That's not what happened then, and it's not what would happen now if we tried another round of amnesty.

With hindsight, we can see clearly that the 1986 law did not solve America's illegal immigration problem. The U.S.-Mexico border was not strictly patrolled, and in the three decades since, the number of immigrants who have crossed illegally has soared to 11 million.

**To stop illegal immigration, we should punish those who break the law.**

Rather than arbitrarily welcoming as citizens whoever happens to have snuck across the border, we should be thinking about what we want America to look like in 2050. How many immigrants do we want, and what kind of job skills and education do we want them to have? Those are some of the considerations that should inform any immigration reform we enact.

I oppose providing a pathway to citizenship because you can't offer **incentives** for breaking the law without expecting more laws to be broken.

It's a basic law of economics: When you reward a behavior, you get more of it; when you punish something, you get less of it.

If we want to solve America's problem with illegal immigration, we should punish those who break the law. We should systematically deport all those who are living in the U.S. illegally. Doing so would restore the rule of law and finally solve the problem.

**—CONGRESSMAN STEVE KING**  
Republican of Iowa





# ATTACK ON PARIS

ANALYZE THE ARTICLE

**What you need to know about the terrorist assault on the French capital** BY PATRICIA SMITH AND VERONICA MAJEROL

**O**n the night of November 13, Paris was rocked by a series of coordinated terrorist attacks that killed at least 129 people and injured more than 350. It was the worst bloodshed on French soil since World War II (1939-45). The brunt of the massacre took place at a concert given by the U.S. rock group Eagles of Death Metal. Gunmen with assault weapons stormed the concert hall, firing into the crowd and

taking hostages. Suicide bombers and shooters struck several other sites, including restaurants and outside a soccer stadium. The attacks came less than a year after terrorists in Paris killed 16 people, including 12 at the office of the satirical French newspaper *Charlie Hebdo* (see "Terror in Paris," *Upfront*, Feb. 23, 2015). Here's what you need to know about the attacks and what they mean for France, the U.S., and the world.

## 1 Who was behind the attacks?

The terrorist group ISIS immediately claimed responsibility. ISIS (the Islamic State of Iraq and Syria) is a radical Sunni Muslim group that has taken over large parts of Syria and Iraq since 2014 and imposed strict Islamic law. ISIS has

beheaded several Western journalists and Christians and used a sophisticated online campaign to recruit tens of thousands of fighters to wage *jihād* (holy war). Authorities say three teams of terrorists carried out the Paris attacks. Seven attackers were killed that day, either by their own suicide bombs or by French

police. Most of the suspects were either French citizens or had grown up in France or Belgium. The attacks are the biggest that ISIS has carried out in the West.

## 2 Why wasn't the plot detected?

American and European intelligence officials thought ISIS was planning an attack in France but didn't have specifics.

Watch a video on the response of refugees.

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"We did not have enough information to take action to disrupt it," one official said.

France has had trouble keeping tabs on would-be terrorists within its borders. ISIS and other groups have had success recruiting in the ghetto-like suburbs of Paris, where many of France's 5 million Muslims live. There's high unemployment and deep resentment at feeling segregated from the larger society.

Europe's migrant crisis is complicating the security situation: Hundreds of thousands of refugees, many fleeing the war in Syria, have flooded into Europe in recent months. News that one of the bombers may have entered France through Greece, along with the migrants, seemed to confirm fears that terrorists could be slipping in undetected among the refugees.

## 3 Is ISIS a bigger threat than we thought?

The U.S. and its allies have long treated ISIS as a group whose primary goal is to conquer territory and impose Islamic law; it wasn't seen as a global threat. In fact, in an interview that aired hours before the Paris attacks, President Obama told ABC News that "we have contained them" in Iraq and Syria.

The Paris attacks weren't, however, the first **inkling** that ISIS has broader ambi-

tions. Just a couple of weeks earlier, ISIS claimed responsibility for the downing of a Russian passenger plane over Egypt, which killed all 224 people aboard.

But the Paris attacks were "a game changer," in the words of one senior American intelligence official, who adds, "This clearly shows ISIS is . . . capable of carrying out large-scale attacks outside Iraq and Syria. There will be a greater sense of urgency in how we go about trying to combat these kinds of attacks."

## 4 How has the world responded?

The global outpouring of sympathy for and solidarity with the traumatized people of Paris was immediate—as were offers of help from world leaders.

But the response quickly went beyond grief and words. French warplanes bombed the Syrian city of Raqqa, where

ISIS is based (see map). And the U.S. stepped up its own attacks, striking a convoy of ISIS trucks in Syria that were carrying oil. ISIS controls oil fields in Iraq and Syria and uses the money from the sale of that oil to fund its operations.

"France is at war," French President François Hollande told reporters. "But we're not engaged in a war of civilizations, because these assassins do not represent any. We are in a war against jihadist terrorism, which is threatening the whole world."

## 5 Will the U.S. send troops to Syria?

The U.S. already has 3,500 troops in Iraq. But the Obama administration, wary of getting bogged down in another Middle East ground war, has long opposed sending large numbers of troops to battle ISIS.

Obama's handling of ISIS and national security is now certain to be a major issue in the 2016 presidential race. "Once you've gotten a place like Iraq under control, you don't withdraw, which leaves an incredible vacuum and allows for the development of things like ISIS," Republican candidate Ben Carson said after the Paris attacks.

Whether or not Obama shifts his ISIS policy, says Matthew Olsen, a former director of the National Counterterrorism Center, the attack on Paris "increases pressure on the U.S. and the West to respond more aggressively." •

With reporting by Jim Yardley, Katrin Bernhold, Michael D. Shear, Adam Nossiter, Michael S. Schmidt, Peter Baker, and Eric Schmitt of *The New York Times*.



JIM MCKIMON (MAP); GARY VARTANIAN/STYLINGFORUS; SYNGENTA/CORBIS OUTLINE



SPORTS



# HARD KNOCKS



Aledo High School battles Brenham High School in Texas, 2014

**Football is one of America's most iconic sports. But is it just too dangerous?** BY GABRIEL CHARLES TYLER



**B**ryce Monti was about to make a routine tackle when he knocked heads with one of his teammates and fell onto the football field at Hortonville High School in Hortonville, Wisconsin.

"When I got back up, I saw two scoreboards," he recalls of the 2014 game. "I was out of it completely."

Monti, then a 17-year-old Hortonville junior, says he knew the helmet-to-helmet collision was a hard hit. But he shook it off and played the rest of the game. He had no idea that he'd sustained a concussion until his parents took him to the emergency room later that night.

Monti followed the doctor's orders and sat out a game. But eager to help his team, he returned after a week and quickly sustained another concussion. A year later, he's still struggling with painful headaches and he faces the possibility of permanent brain damage.

"I wanted to get back out there, not only for myself, but for my team," Monti says. "I never really thought going back would cost me in the long run."

His story, which received a lot of local media attention, is just one example of the recent

public spotlight on football and the repeated head trauma that's a routine part of the game. The National Football League (NFL) for years denied there was a link between the sport and brain damage, but in 2009, it acknowledged publicly for the first time that concussions suffered while playing football can lead to long-term negative health effects. Last year, the NFL revealed that it expects nearly a third of retired players to develop permanent brain impairments.

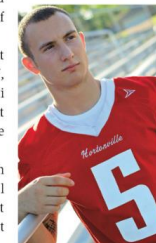
Medical researchers at Boston University recently confirmed that 88 of 92 former NFL players who donated their brains for research suffered from chronic

traumatic encephalopathy (C.T.E.), a brain disease induced by repetitive head trauma and linked to depression, aggression, impulse-control problems, memory loss, and dementia. Several former players—all found to have had C.T.E.—have committed suicide, and hundreds more continue to suffer from irreversible brain damage.

Concern over concussions has filtered down from the NFL to colleges, high schools, and youth leagues, with more parents becoming fearful of a sport that's long been tied

**'I don't think my life will ever be the same.'**

—BRYCE MONTI



Watch a video about football and concussions.



to community pride and tradition. A recent Bloomberg Politics poll found that 50 percent of Americans wouldn't want their sons to play football.

"Football is at a crossroads," says Jodi Balsam, a sports law professor at Brooklyn Law School in New York. "And that crossroads is about convincing the next generation of players and their parents that the game is safe to play and that the rewards of playing outweigh the risks."

Football has always been a sport known for hard tackles and rough play, making injuries inevitable (see "How We Got Football," p. 18). A typical high school football player receives about 650 hits to the head per season, according to research conducted by the University of Michigan's NeuroTrauma Research Laboratory. In 2014, more than 9,500 concussions were reported among high school football players in the U.S. At least eight high school football players have died so far this year, according to the National Center for Catastrophic Sport Injury Research, but, in some cases, factors other than football might have contributed to the deaths.

#### Playing Through Pain

Although sports-related concussions among young people in the U.S. have been on the rise in general (see "It's Not Just Football," facing page), football has the highest rates of catastrophic head injuries. Some argue that players have long been conditioned to play through pain, often heading back onto the field even with blurred vision, ringing in the

ears, or unsteady steps. That attitude—what experts call football's "culture of resistance"—has been ingrained in even the youngest players.

"It's a culture where the idea is to man up, to not let your teammates or coach down, and play with your symptoms," says Frederick P. Rivara, a pediatrician at the University of Washington's Seattle Children's Hospital.

In recent years, lawmakers and sports organizations have attempted to address concerns about concussions and to make sure players are better protected. All 50 states and Washington, D.C., have passed laws mandating how players with head injuries are treated. Many require the immediate removal of anyone suspected of having sustained a concussion and clearance from a qualified medical professional before the player can return to the field.

Washington State—the first state to enact a youth-sports concussion-safety law, in 2009—has taken a very tough line, requiring student athletes, parents, and coaches to complete a concussion-training education program each school year.

The NFL has teamed up with USA Football, the sport's national governing body, to sponsor the "Heads Up Football" initiative, which emphasizes safer tackling techniques, concussion recognition and response, and proper equipment fitting.

"USA Football's techniques and protocols are cutting-edge," says Chris

Haddock, the head football coach at Centerville High School in Clifton, Virginia, and a USA Football trainer. "Coaches at all levels are seeing the results of better tackling and fewer concussions."

But critics say more can be done to safeguard players, especially younger athletes whose brains are still developing.

"We're barely halfway there in terms of dealing with this issue, and young players are the key," says Gregg Easterbrook, a sports columnist and the author of *The King of Sports: Football's Impact on America*. "Nobody thinks that football will ever be risk-free, but there's a lot that can be done to make it safer."

The love of football still runs deep across America. In many towns, especially in rural and suburban areas, it's more than just a sport. The games are events that bring families together and build community pride. Star football players are often local heroes.

"Football really instills a sense of pride in the kids who play and [in] their communities," says Amy McGahan, whose 15-year-old and 12-year-old sons play on their schools' football teams in Cleveland, Ohio. "It's where people can come together."

But as more has become known about the debilitating effects of repeatedly getting whacked in the head, a number of high schools around the nation have been debating whether having a football team is worth the risk. Several schools in Missouri,

**The love of football still runs deep across America.**

## IT'S NOT JUST FOOTBALL

Football is getting lots of attention over concussions, but it's not the only sport facing questions about head injuries. In soccer, the technique of heading—when players use their heads on the ball instead of their feet—is one of the leading causes of head injuries in youth sports. Girls' soccer has the highest concussion rate after football (see below) and twice that of boys' soccer. Researchers say girls generally have smaller neck muscles than boys, making them more susceptible to concussions. Last month, the U.S. Soccer Federation, the sport's national governing body, banned heading for players under age 11 and limited its use for those under 14. The new rules resulted from a class-action lawsuit filed by concerned parents.

**BRAIN INJURIES**  
High school sports with the highest concussion rates (per 100,000 athletic exposures\*)

<b>1. Football</b> (TACKLE)	<b>2. Girls' Soccer</b> (OUTDOOR)	<b>3. Ice Hockey</b>	<b>4. Girls' Basketball</b>	<b>5. Boys' Lacrosse</b>
<b>94</b>	<b>80</b>	<b>63</b>	<b>43</b>	<b>42</b>

\*An athletic exposure is defined as one athlete participating in one practice or game.

SOURCE: NATIONAL HIGH SCHOOL SPORTS-RELATED INJURY SURVEILLANCE STUDY 2014-15 SCHOOL YEAR



**Using her head:**  
Gorham High School against Thornton Academy in Maine

New Jersey, and Maine have done away with football altogether because of safety concerns and low student interest.

At Maplewood Richmond Heights High School near St. Louis, Missouri, the school board cut the football team in June because fewer than a dozen players had signed up for the fall 2015 season. It was the second year in a row the school's football team failed to attract enough students.

Dawson Cordia, 17, a junior at the school who plays for the varsity soccer team, told the *Saint Louis Post-Dispatch* that many people, especially parents, struggled to accept that the school no longer had a football team.

"It kinda hit the community really hard at the beginning," Cordia said.

#### 'I Feel Extremely Protected'

Most schools are still fielding teams, but some players are thinking much more about the hits they take.

"It's kinda scary looking at it in the news and seeing all the side effects," says Jack Sides, a 17-year-old football player at Highland Park High School in

Dallas, Texas. "But there's new technology and better rules implemented in the game, so I feel extremely protected."

For now, many experts say, the best way to make football safer is through more rule changes that mandate fewer full-contact practice sessions and reduce the number of blows to the head. Robert Cantu, a clinical professor of neurosurgery at the Boston University School of Medicine and an expert in concussion research, has advised parents not to allow their children to play tackle football until they're at least 14 years old. Research has shown that kids who begin playing tackle football before age 12 are more likely to develop thinking and memory problems as adults.

Terrell Fletcher, who spent seven years as a running back for the San Diego Chargers, agrees with Cantu. He didn't play tackle football until high school and made sure his oldest son did the same.

"Boys will be boys. They're going to push each other to the ground," he says. "But I didn't see the need to have it done intentionally at such a young age."

Fletcher says more-stringent policies, better equipment, and education efforts have indeed made football safer. But players like Bryce Monti who've already suffered repeated concussions wish they'd better understood the consequences of heading back into the huddle too soon.

Monti, now 18, suffers from post-concussion syndrome, which includes symptoms like constant headaches, nausea, and memory problems that can persist for months or years.

"I can take medicine for the symptoms," Monti says, "but there's nothing they can give me to make them just go away."

He sat on the sidelines during the entire 2015 football season, and plans to attend the University of Wisconsin-Whitewater next fall. Although he's learned to manage his symptoms, he wishes his daily headaches would go away.

"I feel like I just got a concussion last week," Monti says. "I don't feel like my life will ever be the same because of them." •

With reporting by Jan Hoffman of *The Times*.

## HOW MANY G'S? Average G-forces\* from a . . .

. . . roller coaster plunge  
**5g**



SOURCE:  
THE UNIVERSITY OF  
MICHIGAN SCHOOL  
OF KINESIOLOGY

. . . heavyweight boxer's punch  
**58g**



. . . football hit that leads to a concussion  
**100g**



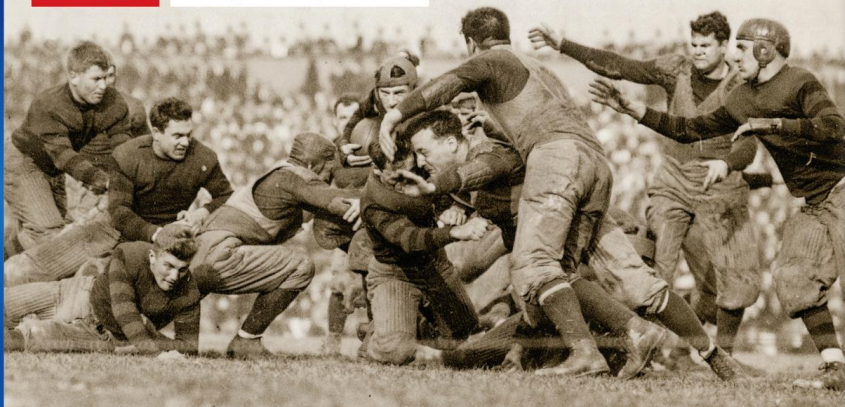
\*The force of gravity or acceleration on a body

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TIMES PAST  
**1905**

A Pennsylvania-Michigan game, circa 1900



# HOW WE GOT FOOTBALL

The game that exploded in popularity after the Civil War grew so violent it was nearly banned. Then President Theodore Roosevelt stepped in to rescue it. BY VERONICA MAJEROL

A football crisis was consuming America. In 1905, at least 18 high school and college boys died playing the sport, and more than 150 were seriously hurt. At the time, protective gear was rarely worn, and the game's loose rules permitted gang tackles and pileups that led to countless concussions and broken limbs and spines. There were passionate cries to ban the sport, met with equally ferocious shouts supporting football and its virtues. One of the game's most powerful fans was President Theodore Roosevelt.

ANALYZE THE ARTICLE

A firm advocate of the "strenuous life," he believed in the game's ability to make men out of boys. But by 1905, he also understood that it would need to be reformed if it had any chance of surviving.

"Football is on trial," he told a group of Ivy League college presidents at the White House that year. "Because I believe in the game, I want to do all I can to save it."

To understand how football arrived at that crisis point in 1905—and how it has since evolved into America's most popular sport, with a record 114 million fans tuning in to the Super Bowl last January—

it's important to first understand where football comes from. Some experts say the game is as old as humankind, with traces of it evident in prehistoric societies.

### A 'Primal Game'

"Football is a primal game," says Sally Jenkins, author of *The Real All Americans*, which charts football's history. "It's existed ever since Celtic invaders\* were kicking around the skulls of the defeated armies."

The more modern incarnation of football traces to early 19th-century England. Playing soccer with his schoolmates one afternoon in 1823, a 16-year-old named William Webb Ellis caught the ball and

\*The Celts dominated Northern Europe from 750 B.C. to 12 B.C. and often clashed with Greek and Roman warriors.



## CASUALTIES OF THE FOOTBALL SEASON OF 1905.

TOTAL DEATHS, 19.		CAUSES OF DEATH.		TOTAL INJURED, 137.	
High school players.....	10	Body blows.....	4	College players.....	78
College players.....	3	Injuries to spine.....	3	High school players.....	39
Girl players.....	1	Concussion of brain.....	6	Grade schools.....	7
Other players.....	5	Blood poisoning.....	2	Athletic clubs.....	7
17 years old or under.....	10	Other causes.....	4	All others.....	6

The football season, which ended practically yesterday, only a few games throughout the country being reserved for Thanksgiving week, has produced more than the average number of casualties. The list given here includes details of 29 deaths and 137 injuries, but of course is in no respect complete. It is taken from records kept by "The Tribune" and supplemented by reports of casualties published in various sections of the country. A full list of players who were injured and the injured list merely reflects the aggregate of miscellaneous accidents. A full list of players who were injured at some time during the season would sum up close to 3,000, and then would include only the injuries of a really serious character. In hundreds of cases those injured have had with internal effects that, judging from the statistics of modern sources use slightly different statistics.

CHICAGO TRIBUNE/THE CONTENT AGENCY PARTNERSHIP; TRANSCENDENTAL GRAPHIC SECURITY; IMAGES (THEODORE ROOSEVELT); WALTER CHAINKEY; CAMP BAKER; BETTMANN; INCLUSIVE; BETTMANN; BUCKLE; MANDRIP; P. S. ARCHIVES; WILEY UNIVERSITY

ran with it toward the opponent's goal. It violated soccer's rules, but it also gave birth to a new game called rugby—a direct ancestor of American football.

By the mid-19th century, rugby-like versions of "football" were sprouting up at Ivy League campuses in the northeastern U.S.—rough-and-tumble games with few rules and little uniformity among the various schools. It was the dawn of the industrial age, and the notion that sports trained young men to be strong physically and morally—an English concept known as "muscular Christianity"—was taking hold in the U.S. The idea became even more widespread after the Civil War (1861-65). In the absence of real combat, sports became a new proving ground for men, with baseball, boxing, and football exploding in popularity.

"There's sort of this pervasive anxiety about manliness from the 1870s through the Victorian era [1837-1901]," says Jenkins. "Football evolves partly because there's a big concern that young men are spending too much time in parlors, that the world is becoming too mechanized and urbanized, and that there needs to be some artificial means of training young men in games of power."

By the late 1870s, football had gained the reputation of a "blood sport," according to John J. Miller, the author of *The Big Scrum: How Teddy Roosevelt Saved Football*. "Instead of helmets, the men went bareheaded or put on [ornamental] stocking caps," he writes. "They did not use pads. . . . Ordinary roughness frequently turned to violence as players heaved each other to the ground, threw

elbows, and piled on top of one another." A social and political movement to ban football, which began in the 1870s, reached a boiling point in 1905. *The New York Times* criticized football's trend toward "mayhem and homicide." Prominent politicians condemned the sport.

"There was not a boy in the game who did not run the risk of receiving an injury that would send him through life a hopeless cripple," Congressman Charles Landis of Indiana said in 1905 after watching a game. "Should an alleged sport that necessitates taking such chances receive the sanction and encouragement of sane and sensible people?"

### Meeting at the White House

President Roosevelt, who fell in love with football as a boy, decided to intervene. A sickly child who grew up in New York City, he never actually played football. But he believed the game built character and was happy to see his son Teddy Jr. play for Harvard. (Teddy Jr. sustained a broken nose and a deep gash that required stitches.) In response to the football crisis the nation faced, Roosevelt invited the presidents of Harvard, Yale, and Princeton—then the big three football schools—to the White House.

Roosevelt demanded that they commit to creating new rules to make the sport safer, or the government would outlaw the sport. The college presidents agreed to address the wanton brutality. They soon joined with other schools to form the precursor to the N.C.A.A. (National Collegiate Athletic Association), which made key rules changes. One of the most



**'Because I believe in the game, I want to do all I can to save it.'**

—PRESIDENT THEODORE ROOSEVELT

important was allowing the forward pass. "It opened up the game, so you didn't have everyone massed into these running plays right at the line," says Mark Bernstein, author of *Football: The Ivy League Origins of an American Obsession*.

The changes helped appease football's critics and pave the way for the sport's rise to mass popularity. But the question remains as to whether those reforms—or any other safety measures, including the pads and helmets used today—can really protect football players from serious injuries like concussions (see "Hard Knocks," p. 14).

And yet for all the problems with the sport, Jenkins says, there's little sign that Americans want to let go of football—a game that to many feels ingrained in the nation's DNA.

"The concussion crisis hasn't killed audience interest in the game," she says. But "it's made everyone queasier." •





# LOCKED AWAY

Have get-tough-on-crime laws sent too many Americans to prison? BY PATRICIA SMITH

ANALYZE THE ARTICLE

Prisoners in California's Pelican Bay State Prison

Last month, 6,000 inmates who had spent an average of nine years behind bars for drug crimes walked out of federal prisons across the country. It was the largest ever one-time release of federal convicts in the United States.

The U.S. Department of Justice made the move to ease prison overcrowding. But it was also linked to a growing effort by lawmakers, both Democrats and Republicans, to roll back the harsh mandatory penalties given to non-violent criminals—many of them drug

offenders—beginning three decades ago.

"Far too many people have lost years of their lives to draconian sentencing laws," says Jesselyn McCurdy of the American Civil Liberties Union, which has long lobbied for sentencing reforms.

Many more prisoners serving time for non-violent crimes like drug possession could be released early, as Congress and some states reconsider what are known as mandatory-minimum-sentencing laws. The laws were meant to curb escalating crime rates and make punishments tough enough to discourage potential criminals.

Congress and many state legislatures embraced the idea of mandatory prison sentences in the 1980s and early '90s. The use of crack cocaine had turned into a nationwide epidemic, contributing to a sharp rise in the crime rate; lawmakers vowed to "get tough" on crime.

In addition to minimum sentences, many states also passed "three strikes and you're out" laws that automatically gave most repeat offenders 25-years-to-life for their third convictions. At times, the laws mandated sentences that many said were unfair or even outrageous. For example, in 1995, a California man with five prior convictions was sentenced to

25 years in prison for stealing a slice of pepperoni pizza.

The result of mandatory sentencing has been a huge spike in the U.S. prison population. The incarceration rate more than quadrupled from 1972 to 2012. Today, 2.2 million people are behind bars in the U.S. (About 211,000 are in federal prisons; the rest are in state lockups.) That's nearly 1 out of every 100 American adults.

The U.S. incarceration rate is 5 to 10 times higher than the rates in Western European countries. The U.S. accounts for just 5 percent of the global population but has 25 percent of the world's inmates.

"A primary driver of this mass incarceration phenomenon is our drug laws, our mandatory-minimum sentencing around drug laws," President Obama said in July. "And we have to consider whether this is the smartest way for us to both control crime and rehabilitate individuals."

## Falling Crime Rates

Minority communities have been the most drastically affected. Black men are six times more likely to be behind bars than white men. According to a national report published last year, black men born since the late 1960s are more likely to have served time in prison than to have a degree from a four-year college.

Now, there's a growing feeling that reform is needed. Crime rates have fallen sharply, and that's given lawmakers the leeway to talk about chang-

ing sentencing laws. At the same time, there are strong financial incentives to reduce the country's prison population.

It costs taxpayers \$80 billion a year to keep all those people locked up. One-third of the Justice Department's budget is spent on running federal prisons, and both Republican and Democratic lawmakers agree that number needs to be reduced.

In late September, a bipartisan group of senators proposed a sweeping overhaul aimed at reducing mandatory minimums and winning early release for those serving sentences disproportionate to their crimes. The changes would be retroactive if the legislation is enacted, and lawmakers estimate that up to 6,500 other prisoners—many of them charged with nonviolent offenses related to crack cocaine—could qualify for shorter sentences.

But not everyone thinks this is a good idea. Senator Jeff Sessions, a Republican of Alabama, urges caution.

"Prison penalties fairly and systematically applied means less crime," he says.

And there are other potential problems. Ronald Teachman, the former police chief in South Bend, Indiana, says that prisoners rarely receive the job skills and reintegration training they need in order to succeed after they're released.

"People come out of prison hardened and angry and more likely to offend," Teachman says.

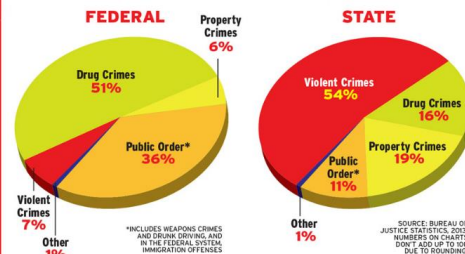
Anthony Papa knows something about the challenge of adjusting to life outside prison. He served 12 years under New York's mandatory-minimum-sentencing laws for handing an envelope filled with 4.5 ounces of cocaine to buyers who turned out to be undercover cops.

Papa was released in 1997, and he now works at the Drug Policy Alliance, a group working to reform sentencing laws. He's optimistic that Congress will pass reforms. "It's a step in the right direction," Papa says. "The drug war has devastated families and communities, and it is time for the healing to begin." •

With reporting by Michael S. Schmidt, Carl Hulse, and Jennifer Steinhilber of The Times.

## WHY THEY'RE LOCKED UP

Here's a breakdown of the crimes that put the nation's 2.2 million prisoners behind bars (211,000 are in federal prisons; the rest are in state lockups).



Watch a video on three-strikes laws.

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## Debate

# Was It a Mistake to Withdraw U.S. Troops From Iraq?

The United States and its allies went to war against Iraq in March 2003, with President George W. Bush accusing Iraqi dictator Saddam Hussein of harboring weapons of mass destruction.\* Within a month, Hussein had been ousted. But rather than overseeing a quick shift to stable democratic rule, the U.S. was drawn into a long, bloody

sectarian conflict between Iraq's Sunni and Shiite Muslims. After his election in 2008, President Obama vowed to bring American troops home, and in 2011 he withdrew the last U.S. forces. But sectarian fighting and bombings have continued. In 2014, the Sunni terrorist group ISIS (Islamic State of Iraq and Syria) took advantage of the chaos by seizing large swaths of territory in Iraq and Syria (see map, p. 27). With the U.S. now using airstrikes to fight ISIS, debate is growing about whether the U.S. withdrew its forces from Iraq prematurely.

Analyze the arguments.

Cast your vote and see instant results.

U.S. soldiers on a plane heading home from Iraq

### Editor's Note: ISIS or ISIL?

Upfront and most other media use the acronym ISIS for the terrorist group known as the Islamic State of Iraq and Syria. But some lawmakers, including Senator Graham, prefer the acronym ISIL, which stands for Islamic State of Iraq and the Levant. The Levant is a geographic term generally understood to include Turkey, Syria, Lebanon, Jordan, Israel, and the Palestinian territories.

**YES** In April 2011, when the White House was considering the withdrawal of American troops from Iraq, I asked that 10,000 to 15,000 troops be left there to ensure the gains made by our brave servicemen and women wouldn't be undone. Instead, President Obama chose to withdraw every last U.S. service member.

The abrupt departure of American soldiers, who had been instrumental in maintaining order and preventing the rise of radical groups, left a vacuum. As a result, a massive resurgence of radical Islam in the Middle East now threatens us both at home and abroad.

That's a far cry from the situation in 2009: A U.S. troop surge that began two years earlier had stabilized Iraq, and radical Islam had lost its momentum. The strong engagement of our military in the region had put Al Qaeda on the run and was a success both militarily and politically. At that point, ISIL was a small force with little reach, and Iraqis who wanted to live in peace were steadily reclaiming their lives.

Today, ISIL controls several major cities in Iraq and has a

### The abrupt departure of American troops left a power vacuum in Iraq.

growing army of fighters. As the group has expanded, it's spread violence and chaos—the perfect conditions for the launch of devastating attacks against the U.S. This reversal comes as a direct result of President Obama's refusal to take the advice of military commanders in 2011 who recommended that 16,000 troops remain in Iraq.

The 3,500 U.S. troops currently there—who Obama begrudgingly sent back during the past few years as his failures became apparent—simply aren't enough. According to General Jack Keane, one of the architects of the 2007 troop surge, we will need 10,000 U.S. troops to once again change the tide of battle in Iraq. These additional forces would allow us to train and advise Iraqi troops, giving them a better chance to defeat ISIL.

Turning our backs to the world and its troubles may be tempting, but it's the wrong thing to do. If a sufficient number of U.S. troops had remained in Iraq after 2011, ISIL would not be the regional power and substantial threat it is today. •

—SENATOR LINDSEY GRAHAM  
Republican of South Carolina & presidential candidate

\*No weapons of mass destruction were ever found.

**NO** In 2003, I strongly opposed the U.S. invasion of Iraq, which launched a costly war that lasted almost nine years. Ending that war by withdrawing our troops in 2011 was the right thing to do.

Retired Lieutenant General William Odom warned in 2006 that “the Iraq War may turn out to be the greatest strategic disaster in American history,” and we are rapidly seeing his prediction come true.

This war cost the lives of 4,490 American servicemen and women and more than \$800 billion, according to the National Priorities Project. That money could have provided Pell grants\*\* of \$5,775 each to 14 million college students every year for 10 years. These costs continue to climb, especially as we struggle to care for our 32,000 wounded veterans.

CAROLYN OGLELA/THE NEW YORK TIMES/GETTY IMAGES

In addition to the unacceptable cost in lives and the unsustainable cost in taxpayer dollars, this war endangered America's national security and destabilized the entire Middle East. Our invasion served as a recruiting tool for extremist militant groups. The American military presence in Iraq stoked hatred and fear among an entire generation,

\*\*Pell grants are money the federal government gives some families to help pay for college.

### Our invasion served as a recruiting tool for extremist militant groups.

leading some to sympathize with or join terrorist organizations that are now actively working to harm Americans. One of the most powerful and dangerous of these groups is ISIS, which first emerged in 2004 as part of a larger Sunni uprising against the invasion and the U.S.-backed Iraqi government. Far from being caused by the withdrawal of troops in 2011, ISIS is the most enduring product of the war itself.

Our only option was to end the war and withdraw our troops—a position that a majority of Americans supported, as evidenced by the 2008 election (and 2012 re-election) of President Obama, who campaigned on the promise to end the Iraq war.

The future of Iraq and the entire Middle East can't be dictated by Americans; it must be determined by Iraqis forging a political solution that involves regional partners. The decision to launch an unnecessary war against Iraq in 2003 was wrong, but withdrawing our troops was absolutely correct. We cannot be the police of the world. •

—CONGRESSWOMAN BARBARA LEE  
Democrat of California

4,490

Number of U.S. troops killed in Iraq from March 2003 to December 2011. (32,246 troops were wounded.)

45,000

Estimated number of Iraqi civilians killed since the beginning of 2012.

3.1 million

Number of Iraqis who've lost their homes since 2003 because of the fighting.

\$2.4 billion

Amount the U.S. spent fighting ISIS from July 2014 to July 2015.

SOURCES: DEPARTMENT OF DEFENSE; IRAQ BODY COUNT



NATIONAL



An officer wearing a body cam during a traffic stop in Duluth, Minnesota

ANALYZE THE ARTICLE

# Should Police Wear Body Cameras?

While video can tell us a lot about encounters between the police and the public, body cams also raise concerns about privacy BY VERONICA MAJEROL

**W**hen Michael Brown, an unarmed black teenager, was fatally shot by a police officer in Ferguson, Missouri, in August 2014, it led to weeks of unrest and a national debate about police conduct, especially with black suspects.

Some witnesses confirmed Officer Darren Wilson's account that he'd shot Brown in self-defense. Others said Brown didn't pose a threat and that the shooting amounted to murder. A grand jury decided not to charge Wilson with a crime, but what really happened that night? If the encounter had been captured on video, some have argued, we'd know.

Now, in the aftermath of Brown's

death, as well as those of other black men who died during encounters with police in the past year—like Eric Garner in New York; Walter Scott in North Charleston, South Carolina; and Freddie Gray in Baltimore—there's a push to require more police officers to wear body cameras. In May, the Obama administration launched a \$75 million program to test their effectiveness, with plans to distribute 50,000 of them to police by 2018. And in June, Congress passed a resolution urging state and local police departments nationwide to use body cameras.

"In all the incidents that we've been hearing about since Ferguson last year, we've seen that the community wants

to know what the police are doing," says Lindsay Miller of the Police Executive Research Forum, an independent think tank that studies police practices. "Body cameras are a good way to show that."

## Car Accidents & Assaults

Police cameras are actually nothing new. Dashcams in police cars date back to at least the 1990s, and in recent years, many police departments have begun using body cameras, which allow officers to record when they're outside of their cars.

Though the Fourth Amendment protects Americans from "unreasonable searches and seizures," there are no restrictions on police—or anyone else—recording you in public. (The Amendment requires police to get a court-issued war-

rant to enter your home; but it's unclear whether they may record you in your home without your permission.)

Most police departments require officers to press "record" only when there's a service call—anything from a car accident to an assault. In cases when using a video camera might be impractical or insensitive—like when children are involved—officers are generally allowed to use their own discretion about whether to record.

Research shows that body cameras can help de-escalate tense situations and make both officers and civilians behave better. The footage can also serve as valuable evidence in cases where police and civilian accounts of events differ, in some cases protecting police against false accusations.

"I think police officers in America and police officers in our department are in favor of body cams," says Jason Parker, the police chief in Dalton, Georgia, where some officers have been using the devices, about the size of a deck of cards, for the past four years. "They [want to] demonstrate to the public that . . . by and large they are using a great deal of restraint."

But for all their benefits, police cameras also raise a number of concerns. Among the biggest questions is who should be allowed to see police videos. The answer can vary widely, depending on state and local laws. In Washington State, for example, anyone can file a request. Handling those requests can be time-consuming and expensive. So in Seattle, where a dozen officers started wearing body cams in a pilot program last December, the department came up with a cheap, easy way to share the videos with the public: It set up its own YouTube channel.

Jay Stanley of the American Civil Liberties Union (A.C.L.U.) in Washington, D.C., says he's in favor of police body cameras and the public's right to see certain kinds of footage. But he thinks Seattle's YouTube approach, despite the fact that it blurs images to hide identities, raises privacy concerns.



"Police officers see a lot of very dramatic things," he says. "They deal with a lot of very upset people . . . they deal with victims of crimes . . . they go to hospitals—and none of these things should probably end up on YouTube."

## Cameras Everywhere

Some states are trying to impose restrictions on which police videos are available to the public. Twenty-nine states are now considering legislation related to police cameras, and 15 of them are trying to limit the content the public can see. In some cases, lawmakers are pushing to make all police videos off-limits to the public—which some people say defeats the purpose of police cams.

**'None of these things should . . . end up on YouTube.'**

"If the public doesn't have the opportunity to view the video on their own," says Laniece Williams of the Philadelphia Coalition for Racial, Economic and Legal Justice, "they are left with the police version of what happened, and as we've seen recently, their version isn't always what happened."

Even police departments that don't use body cameras still have to grapple with a world in which we're all con-

stantly being recorded by surveillance cameras—and one another. In the past year, people with smartphones have captured some very disturbing police encounters—including an officer placing Eric Garner in a chokehold that led to his death and another officer fatally shooting Walter Scott in the back. In June, a video of police aggressively detaining black teens at a community pool in McKinney, Texas, turned up on YouTube, prompting outrage on social media and an investigation of one of the officers involved.

Parker, the police chief from Dalton, Georgia, says body cameras have so far worked well with his officers. But in places with frayed police-community relations, he says, the technology isn't a cure-all.

"Trust in policing . . . comes when a police department has a healthy professional culture internally, and they treat people fairly, and they hold their own selves accountable to the legal policies and procedures and the laws that they're enforcing," he says. "If body-worn cameras help reinforce that or provide more examples of that, I think that's great."

*With reporting by Timothy Williams of The New York Times.*



# All Dried Up

California's record-breaking drought shows that Americans can no longer take water for granted. What do we need to do to keep it flowing? BY PATRICIA SMITH



Lake McClure, in central California, after four years of drought



A family with no running water fills buckets to take home in Monson, California.

ANALYZE THE ARTICLE

Like most Americans, you probably don't give much thought to all the water you use. You drink it, you wash with it, you go swimming in it. And it's always there when you need it.

But in parts of California, the water has vanished. Residents can't take a shower, flush a toilet, rinse the dishes, or even sip a glass of water without reaching for a bottle or a bucket.

"You don't think of water as a privilege until you don't have it anymore," says Yolanda Serrato, whose home in East Porterville, about 150 miles north of Los Angeles, has been without tap water since her well dried up more than a year ago.

## The Parched West

California has been especially hard-hit by the current drought



California is in its fourth year of extreme, record-breaking drought, and it's **wreaking** havoc on the state. Lakes and rivers have disappeared, thousands of acres of crops have withered, and suburban yards have gone brown—all because there isn't enough water to feed them.

The drought is affecting nine Western states, but California has been hardest hit (see map). That's because weather conditions in the Pacific Ocean for the past few years have prevented major storms—both rain and snow—from reaching California. The result is that the most populous state in the nation is now facing a crisis.

In April, Governor Jerry Brown imposed, for the first time ever, mandatory cutbacks in water use. Overall, residents and businesses will have to reduce their water usage by 25 percent.

"This is the new normal," Brown said, "and we'll have to learn to cope with it."

A drought is a period of unusually dry weather that causes water shortages. Periodic dry spells

Watch a video explaining the California drought.

AP/WIDE WORLD; GETTY IMAGES; LAKE MCCLURE: JIM MCNAMON; JAMES RENEE C. BETHUNE/AMPHOTO; BEZCOM/PHOTO.COM; WATER BUCKETS



are nothing new for California or other parts of the nation. Three things have made this one much worse.

First, climate change has caused higher temperatures that have made the effects of the drought more severe. Normally, much of California's water comes from snow in the mountains, which melts gradually in the summer to feed streams and reservoirs. But higher temperatures mean most of the precipitation—and there hasn't been much—has fallen as rain that evaporates or runs off into the ocean.

Second, the demand for water has never been greater: California's population has more than doubled in the past 50 years to almost 39 million.

And third, the state's agriculture industry is using increasing amounts of water. California is one of the nation's breadbaskets: Its 78,000 farms provide 25 percent of the food Americans eat, including about half of our fruits and vegetables.

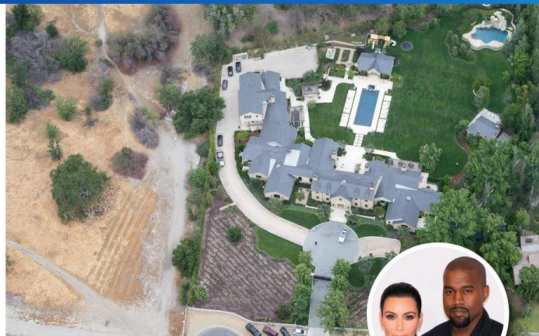
#### Acres Unplanted

Feeding 318 million Americans requires massive amounts of water (see chart, right). Since the state's rivers, lakes, and reservoirs are too low to supply the water that crops need, farmers are drilling wells—so many that scientists are worried about the supply of groundwater running out.

Farmers have also cut back on production, leaving hundreds of thousands of acres unplanted. If the drought goes on, we'll all feel its effects. For example, if the supply of grapes and strawberries declines and fewer make it to your supermarket, the price is likely to rise.

The underlying problem is that much of the region is essentially a desert: California has redirected massive amounts of water—largely from the Colorado River—to supply the needs of its people, farms, factories, and lawns.

What does that mean for California's future? The state has always been a land of hopes and dreams, starting with prospectors seeking fortunes during the 1840s Gold Rush, later to those drawn by the glamour of Hollywood, and most recently by



Kim Kardashian and Kanye West were ordered to use less water at their Beverly Hills estate.

millennials in search of high-tech jobs in Silicon Valley. But California is now confronting fundamental questions about limits to its growth.

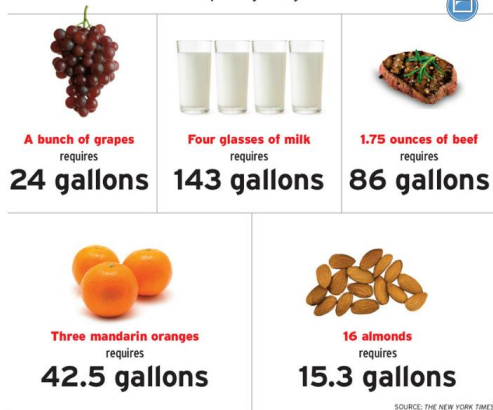
"Mother Nature didn't intend for 40 million people to live here," says Kevin Starr, a historian at the University

of Southern California. "This is literally a culture that since the 1880s has progressively invented, invented, and reinvented itself. At what point does this invention begin to hit limits?"

Across the state, people are feeling the effects of rising water prices and

## How You Contribute to California's Drought

The average American consumes more than 300 gallons of California water each week by eating food grown there



\*The Colorado River runs through Colorado, Utah, Arizona, Nevada, and California.

the mandatory cutbacks—although not equally, some complain.

In Compton, a working-class city in Southern California, Lillian Barrera has stopped watering her lawn and started serving her family dinner on paper plates so she doesn't need water to clean up.

"I try to save water," says Barrera, who works as a housekeeper in Beverly Hills and is frustrated by what she sees there. "In Beverly Hills, they have a big garden and run laundry all the time."

Statewide, half of residential water use is outdoors—mostly for watering lawns.

Celebrities like Jennifer Lopez and Kim Kardashian have taken a beating on Twitter for continuing to water their estates despite restrictions. Authorities this summer ordered Kardashian to cut water use on her property by 50 percent.

Water restrictions will likely become more common in the years ahead, according to scientists, who say that climate change is making most of the West drier and hotter—and more drought-prone. (East of the Mississippi, the trend has been for more rainfall.)

"Climate change is really weighting the dice" in favor of future major droughts, says Toby Ault, a climate researcher at Cornell University in Ithaca, New York.

#### How Israel Beat a Drought

So what steps could California take to get the water flowing again? For starters, it could look at what other water-challenged places have done. Israel, whose desert climate is similar to California's, has faced severe drought and found ways to combat it. During a seven-year-long drought that began in 2005, Israel began reusing wastewater on a massive scale and built four major desalination plants to turn the salt water of the Mediterranean into drinking water.

"We can live a normal life in a country that is half desert," says Shaul Ben-Dov, who lives outside Jerusalem. Key to Israel's success is that the water

system is managed by the national government; it has raised prices to encourage conservation and invested in system-wide improvements. (Economists say water is too cheap in the U.S., so we have little incentive to conserve it.)

These efforts have mostly solved Israel's problem. But the tricky part is that water is a necessity, not a luxury, so you can't price it beyond the reach of the poor.

Could California follow Israel's lead? Several California cities are considering high-tech plants that would clean wastewater so it can be reused for everything from agriculture to washing, and even drinking (see "From Toilet to Tap?").

With 840 miles of coastline, California's most obvious source of water is the Pacific Ocean. But first the salt has to be removed, an expensive process. In Santa Barbara, a desalination plant that hasn't been used for 20 years is being reactivated at a cost of about \$40 million.

"Desalination is our absolute last resort," says Santa Barbara Mayor Helene Schneider. "Unfortunately, given the way the drought is going, we are now at that last resort."

There's a chance Mother Nature might solve the problem on her own. That's essentially what happened in Texas, where a series of torrential rains in May refilled parched lakes and reservoirs, ending a years-long drought.

California could get relief this winter—if a strong El Niño\*\* weather pattern brings some big winter storms. But the longer-term regional trend is still for hotter, drier weather, scientists say. And that will require ongoing adaptation.

"We have to become more resilient, more efficient, and more innovative," says Governor Brown. "And that's exactly what we're going to do." •

With reporting by Justin Gillis, Matt Rittel, Adam Nagourney, Jack Healy, Nelson D. Schwartz, Henry Fountain, Isabel Kershner, Jennifer Medina, and John Schwartz of The New York Times.

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\*\*El Niño is a warm ocean current that sometimes develops in the Pacific and can cause severe weather conditions, including major storms.



## From Toilet to Tap?

What if the only water you could drink came from someone's toilet?

Yuck, you say? That might soon be the situation in parts of California, where some counties are experimenting with an idea known as "toilet to tap." In a nutshell, wastewater that's flushed down people's pipes gets cleaned and then reused as drinking water.

Officials at a treatment plant in Orange County say the water that enters the facility after being flushed down a toilet actually leaves the plant cleaner than anything that comes out of a bottle at the supermarket.

But try telling that to most people. Even with the advanced technology used to purify it, 13 percent of Americans say they wouldn't try drinking "recycled water," according to a recent study.

Despite the resistance, Wichita Falls, Texas, has used such a system since 2014. In California, San Diego and Santa Clara are considering it.

Then there's the International Space Station, which reuses liquid from the toilets and even the moisture from breath and sweat.

"I drank it for six months, and it was actually quite tasty," says Colonel Douglas H. Wheelock, who served as commander of the station in 2010. But that didn't stop his colleagues from laughing about it.

"We had a running joke on the station," he says. "Yesterday's coffee is tomorrow's coffee."

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