

# THE WALL STREET JOURNAL.

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## What's News

Business & Finance

**Equifax CEO Smith will step aside and the embattled firm will begin a search for a successor as it continues to grapple with the aftershocks of its massive hack. A1**

◆ Nestlé set a profit-margin target and said it would accelerate share buybacks amid pressure from Loeb, while remaining firm on its L'Oréal stake. B1

◆ GE is in danger of losing a \$2.5 billion deal to sell locomotives to Indian Railways after a political shake-up in India. B1

◆ The SEC's chairman suggested in testimony that his agency may have mishandled a breach of its system for disclosing market-moving news. B6

◆ Greenhill's founder and CEO said they would invest \$20 million in the firm as part of a reorganization. B6

◆ The CFTC unveiled a new enforcement framework that relies more heavily on firms to self-report wrongdoing. B6

◆ Axovant said its experimental Alzheimer's drug failed to meet the goals of a pivotal trial. B3

◆ Investors are rushing into the bond markets of India and Indonesia, drawn by rich yields and the countries' rosy growth prospects. B7

◆ U.S. oil prices returned to bull-market territory, while the global benchmark, hit a two-year high. B10

### World-Wide

◆ The release of a unified GOP tax blueprint marks the beginning of a race to an overhaul that will take months to complete. A1

◆ Federal authorities brought fraud charges against an Adidas executive and coaches at some of the premier college-basketball programs in the U.S. A1

◆ U.S. lawmakers are pushing for quick approval of relief funding for Puerto Rico hurricane victims. A7

◆ Military analysts said North Korea can better target nearby U.S. aircraft with a new missile system than in years past. A3

◆ Trump indicated he was dissatisfied with his attorney general and said he had the upper hand in his dispute with the NFL, according to guests at a White House dinner. A5

◆ France's Macron will flesh out his proposals for deeper integration of the EU, aiming to influence Merkel's talks with potential coalition partners. A4

◆ Mattis said the effort to avert conflict on the Korean Peninsula remains a diplomatic one. A3

◆ U.S. officials are preparing to announce restrictions to Russian military flights over American territory. A4

◆ A Palestinian gunman killed three members of Israel's security forces at a West Bank settlement. A4

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## WORLD NEWS

# If This Is a Trade War, China Is Beating U.S.



### CHINA'S WORLD

By Andrew Browne

SHANGHAI—Steve Bannon, the recently departed White House chief strategist, asserts that, "We're at economic war with China."

If that's the case, Beijing seems supremely confident of victory.

Eight months into a Trump presidency, the Chinese leadership has offered a few gestures to placate the U.S.—lifting a ban on U.S.

beef was one—while pressing its advantages on all fronts in its competition with the West for industrial dominance.

Expect one or two more headline-grabbing concessions; Beijing is gearing up for a splashy announcement on electric vehicles, which may help Tesla. In Beijing this week, U.S. Commerce Secretary Wilbur Ross said he hoped for "very good deliverables," when Mr. Trump visits in November.

But China flaunts its indifference to the West's com-

plaints almost gratuitously. Foreign businesses are on notice that they are tolerated in China only for as long as they serve Chinese state goals.

Even as President Xi Jinping promises to "push forward market opening faster," his "Made in China 2025" plan has the overt aim of displacing foreign manufacturers in critical areas like robotics, medical equipment and driverless vehicles.

An evolving "social-credit" system will use intrusive monitoring and big data to ensure all companies—Chinese and foreign—align with five-year plans. As part of this effort, the Communist Party is accelerating its push to plant cells in private companies, including multinationals.

U.S. and European firms report they have rarely felt less welcome. Internet blocks make it increasingly hard for their executives to access business information in the cloud. Even email is difficult. Foreign investment is slowing this year.

This is the behavior of a government that senses it has the upper hand.

What emboldens China? Its sharpest trading practices fall outside the scope of World Trade Organization rules. The system wasn't set up with a secretive and centrally directed colossus like China Inc. in mind. Western economies, once optimistic



Chinese Premier Li Keqiang received U.S. Commerce Secretary Wilbur Ross in Beijing on Monday.

THOMAS PETER/REUTERS

that WTO membership would induce transparency and free-market overhauls in China, now have no good defense. Put crudely, China knows it can get away with it.

Consider the remarkably small number of cases brought against China since it joined the WTO in 2001, despite widespread complaints about forced technology transfers, rampant intellectual property theft and unfair competition from state firms. The total between 2002 and 2016: just 38. (During the same period, the U.S. was the

target of 73 complaints.)

China looks at this data as affirmation that, by and large, it plays by the rules. Critics say it has gotten expert at going around them.

So far, the strategy is working. The economy is on an upswing, propped up by debt but also, for now, defying conventional theories that mercantilism will sap China's creative vigor. One in three of the world's "unicorns"—startups worth more than \$1 billion—is Chinese, according

to McKinsey.

Success reinforces predatory habits. China will soon have more middle-class consumers than the entire U.S. population, giving Beijing huge market power. Donald Trump's chief trade negotiator, Robert Lighthizer, says he gets "an awful lot of complaints" from chief executives forced to share technology with joint-venture partners. But those CEOs are reluctant to go public with their gripes for fear of retaliation in their most promising market.

Meanwhile, China is adept

at exploiting divisions between U.S. interests on either side of the China trade: steel manufacturers, for example, support tariffs on imports; steel users oppose them.

What's the answer for the U.S.? Mr. Trump has dropped threats to slap tariffs on Chinese exports, wary of a disastrous trade war. The need to enlist China's help on North Korea also played into that decision.

The same consideration may end up blunting Mr. Lighthizer's formal investigation into forced technology transfers.

For China, the message is Mr. Trump's threats won't be backed up with action.

From Washington to Berlin, the cry has gone up for "reciprocity"—equal market access—from Beijing. But to get there, says Scott Kennedy, an expert on Chinese industrial policy at the Center for Strategic and International Studies, would require not just long-term engagement with China, and support from the WTO and other world bodies, but also close cooperation among economies threatened by Chinese protectionism.

Mr. Kennedy is skeptical. The Chinese, he says, "think they're in the driving seat."

He predicts a flurry of largely symbolic market-opening announcements. "Eventually," he says, "the U.S. will accept tokenism."

## Equifax Security Showed Signs of Trouble Before Hack

BY ANNA MARIA ANDRIOTIS  
AND ROBERT McMILLAN

Weaknesses in Equifax Inc.'s security systems were apparent in the months before a massive hack exposed vital consumer information, according to several cyber-risk analysis companies.

Equifax's cybersecurity has become an issue in the wake of the breach that exposed information of potentially 143 million Americans. On Tuesday, the company said that Chairman and CEO Richard Smith would step aside.

The credit-reporting company was behind on basic maintenance of websites that could have been involved in transmitting sensitive consumer information and scored poorly in areas that would play a major role in the company's massive data breach. That was the finding of analyses done by

four companies that rank the security status of companies based on publicly available information.

Since disclosing the breach on Sept. 7, Equifax has faced questions in information-security circles about whether and when it patched a publicly identified software vulnerability. The company has acknowledged the questions and said that hackers exploited the software vulnerability to ransom its systems.

"We take seriously our responsibility to protect the security of the information in our possession," an Equifax spokeswoman said.

Meanwhile, a lawsuit filed by the Massachusetts attorney general against Equifax alleges a breakdown in minimum-required security standards. The suit claims that exposed consumer information wasn't encrypted on Equifax's systems

### The Equifax Hack: Timeline of Events

**March:** Researchers report security flaw in software powering part of Equifax's website.

**May 13:** Hackers leverage flaw to break into Equifax's customer dispute portal.

**July 29:** Equifax notices suspicious traffic and blocks it.

**Aug. 2:** Equifax brings in outside cyber investigators.

**Aug. 22:** Equifax registers the new domain name equifaxsecurity2017.com.

**Sept. 7:** Equifax announces breach potentially affecting some 143 million U.S. consumers.

**Sept. 15:** Equifax says security intrusion ran from May 13 to July 30.

**Sept. 21:** A Senate committee schedules Oct. 4 hearing and calls CEO Richard Smith as a witness.

**Sept. 26:** Mr. Smith resigns.

and that the company didn't have a written information-security program that met the minimum requirements set by the state's regulations. Equifax said it doesn't comment on pending litigation.

The findings from the four security-rating companies were compiled measuring a range of publicly available

data, not at Equifax's behest, using different methodologies. Such analyses don't represent a deep dive into internal systems and cyberdefenses, but do give an overall view of a company's security posture. The companies conducting the reviews typically sell their reports to a company's current or potential customers.

Along the way, Mr. Smith became a darling of investors as the company's market value rose to a peak of nearly \$18 billion from about \$4 billion when he started. He also became a business celebrity in Equifax's hometown of Atlanta, serving as co-chair of the city's successful bid to host the 2019 Super Bowl.

The hack upended all of that. Although it wasn't the largest such breach in recent years, the hack was one of the most significant because of the amount of consumer infor-

mation disclosed—essentially the keys to establishing a person's identity.

Consumers raced to sign up for credit monitoring or to freeze their credit reports with Equifax and its credit-re-

In April, cyberrisk analysis firm Cyence rated the danger of a data breach at Equifax during the next 12 months at 50%. It also found the company performed poorly when compared with other financial-services companies. "In their peer group of 23 companies, they were second-to-last," said Arvind Parthasarathy, the company's chief executive.

The other analyses gave Equifax a higher overall ranking, but the company fared poorly in overall web-services security, application security and software patching.

SecurityScorecard ranked Equifax as "middle of the pack," when compared with financial-services peers, said Alexander Heid, the security firm's chief research officer.

But Equifax used older software—such as the Apache Struts tool kit that hackers used to break into Equifax—

and often seemed slow to install patches.

Equifax's overall level of security was weak from at least the beginning of the year, according to a review by The Wall Street Journal of a cybersecurity score for the company issued by Fair Isaac Corp. At that point, Equifax's FICO enterprise security score hovered around 550 on a scale that ranges from 300 to 850.

The score began falling in mid-May. It hit a low of around 475 in mid-July.

Equifax has scored subpar grades in two areas that proved critical in the hack, according to a Sept. 8 report by BitSight Technologies Inc. that was reviewed by The Wall Street Journal. The company received a grade of "F" in application security and a "D" for software patching.

—Kate Fazzini contributed to this article.

## CEO

*Continued from Page One*  
isn't clear if he will also appear before the Senate Banking Committee. Equifax said Mr. Smith will continue as an unpaid adviser to the company during the transition.

"The cybersecurity incident has affected millions of consumers, and I have been completely dedicated to making this right," Mr. Smith said in a statement issued by the company. "At this critical juncture, I believe it is in the best interests of the company to have new leadership to move the company forward."

Before the breach, Mr. Smith had told people he

didn't plan to leave the company for at least the next two years, according to a person familiar with the matter. Even after the hack disclosure, Mr. Smith shared that he didn't want to leave the company until he had helped resolve the problem, the person added.

When Mr. Smith took over as CEO in 2005, Equifax was a staid, slow-growing credit-reporting company, according to remarks he made last month at an event. He set about to transform the company by expanding the amount of data it stored about consumers and monetizing it.

Mr. Smith did so by acquiring companies that had information about consumers' employment histories, salaries and savings while also expand-

ing internationally to places like Australia and India. The result was that by 2016, credit-reporting activities accounted for less than a third of revenue versus about 80% a decade earlier.

Along the way, Mr. Smith became a darling of investors as the company's market value rose to a peak of nearly \$18 billion from about \$4 billion when he started. He also became a business celebrity in Equifax's hometown of Atlanta, serving as co-chair of the city's successful bid to host the 2019 Super Bowl.

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mation disclosed—essentially the keys to establishing a person's identity.

Consumers raced to sign up for credit monitoring or to freeze their credit reports with Equifax and its credit-re-

porting peers, Experian PLC and TransUnion.

Equifax's customers, banks and other lenders, were also caught off guard by the hack and privately criticized the firm for the paucity of information that it shared in the wake of its disclosure, according to people familiar with the matter.

Equifax said that it discovered the hack on July 29 and that days later it called in Mandiant, the cyber-investigations division of FireEye Inc. As that firm investigated, Equifax gave no hint anything was amiss: Investor relations officials conducted meetings with shareholders in a host of cities and Mr. Smith appeared at a University of Georgia event where he answered questions about data fraud and spoke of how this was the company's priority.

The hack appears to have been the result of attackers exploiting a vulnerability in a piece of software known as Apache Struts. But this vulnerability was highlighted by researchers at Cisco Systems Inc. in early March.

Members of the information-security community questioned whether Equifax had correctly patched its systems after this disclosure. The company acknowledged the questions and

said its review into the measures taken was ongoing.

A week ago, Equifax sent some customers a report from Mandiant that disclosed the hackers apparently gained access to the company's systems in early March, around the time the security vulnerability was publicly identified. The firm added the hackers seem to have lurked in Equifax's systems for about two months before beginning to access data.



Richard Smith in 2007

NOAH BERGER/BLOOMBERG NEWS

## U.N. Says Nearly a Half Million Rohingya Have Fled for Bangladesh



KEPT IN LINE: The U.N. increased its estimate of Muslim Myanmar evacuees to 480,000. Above, a queue for aid at Cox's Bazar, Bangladesh.

CATHAL MCNAUL/REUTERS

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Baidu Inc.'s Tieba message board was misspelled Teiba in a Technology article Tuesday about platforms fined under China's cybersecurity law.

Readers can alert The Wall Street Journal to any errors in news articles by emailing [wsjcontact@wsj.com](mailto:wsjcontact@wsj.com).

# WORLD NEWS

## North Korea Threat to U.S. Bombers Rises

New missile system with better targeting capabilities increases stakes of confrontation

By ALASTAIR GALE

North Korea can better target nearby U.S. aircraft with a new missile system than in years past, military analysts said, raising the stakes of any confrontation after Pyongyang warned it might shoot down American bombers in international airspace.

As tensions escalate on the peninsula, North Korea has bolstered defenses on its east coast, closest to where U.S. bombers and fighters flew over the weekend, South Korea's spy agency said on Tuesday.

Whether North Korea will follow through on its threat to attack U.S. warplanes is hard to determine, though such action has historical precedent.

Under dictator Kim Jong Un, an acceleration of the nation's missile program has included a new weapon to target planes—a significant upgrade to North Korea's aging Soviet-era missile batteries. And the risks involved in any conflict are much greater now that North Korea can potentially deploy nuclear weapons.

In May, Mr. Kim oversaw a test of a surface-to-air missile system known as KN-06 that was first seen in a military parade in 2010. Following the test, Mr. Kim ordered mass production, state media reported.

The KN-06 has a range of around 90 miles, security scholars estimate. The U.S. said the bombers in the weekend flight remained inside international airspace, which begins around 12 nautical miles from the North Korean coast.

"It's easily the most modern system they have," said Bruce Bechtol, a professor of political science at Angelo State University in Texas, who has studied the North Korean military.



North Korean leader Kim Jong Un, in white, watches the test of a new antiaircraft guided-weapon system, in an undated photo.

North Korea has fired at U.S. aircraft before. In 1981, North Korea launched a missile at a U.S. reconnaissance plane flying near the inter-Korean border, but missed. A U.S. helicopter was downed in 1994, killing one pilot, after it crossed into North Korean airspace.

Pyongyang has also used its aircraft to target U.S. planes. In 1969, a North Korean MiG 21 shot down an unescorted U.S. military surveillance aircraft over international waters, killing its entire crew of 30 sailors and one Marine. In 2003, four North Korean MiGs came within 50 feet of a U.S. reconnaissance plane in international airspace over the Sea of Japan.

On Tuesday, South Korea's spy agency said North Korea has relocated warplanes to its east coast as part of a ramp-up of military hardware, raising the prospect that Pyongyang may send aircraft in response to future U.S. military flights.

While North Korea's old MiG fighters are no match for modern U.S. warplanes, military experts said they could still threaten nonstealth bombers—such as the B-1Bs used in Saturday's mission—if they can cause a tactical surprise.

The U.S. frequently holds military flyovers during periods of escalated tension on the Korean Peninsula, using aircraft based in Guam and Japan.

Generally, they stay south of the inter-Korean border.

A Pentagon spokesman said on Monday that the U.S. maintains the right to "fly, sail and operate" in international wa-

ters and airspace.

Van Jackson, a former strategist at the U.S. Defense Department, said current North Korean rhetoric about U.S. military flights is similar to that used in the 1960s when Pyongyang shot down the U.S. surveillance aircraft. But a new concern is that the regime has become more "expansionist" with its latest claim that it has the right to shoot at aircraft outside its airspace, he said.

The U.S. response to any attack on its aircraft would depend on how successful it was. If North Korea took down a U.S. plane, the response would likely be a "limited and measured" retaliation to destroy the source of the attack, Mr. Bechtol said.

Some analysts and diplomats fear an escalation that could

lead to major conflict, and the possible use of nuclear weapons by North Korea.

Last week, President Donald Trump said at the United Nations that the U.S. would "totally destroy" North Korea if faced with attack.

In one possible sign of caution on the North Korean side, South Korea's spy agency also said on Tuesday that Pyongyang has told its military not to take any action without first reporting up the chain of command.

The agency's assessment was given to lawmakers in a closed-door briefing. Details of the remarks were confirmed by an aide to ruling-party member Kim Byung-kee, who attended the event.

—Kwanwoo Jun contributed to this article.

### Lessons From Strike In 1969 Echo Today

Nixon had few options after military plane was shot down

In 1969, a North Korean pilot shot down a U.S. military aircraft over international waters, killing its entire crew, in a Cold War episode that holds lessons today, both for Pyongyang's capacity for confrontation and for Washington's limited options.

Then-President Richard Nixon said he wanted to respond and reassure jittery regional allies that their unpredictable neighbor would be restrained, after the North Korean MiG 21s' attack on a U.S. EC-121 killed the crew of 30 sailors and one Marine. But the U.S. found itself with few options and its resources entangled by another war—Vietnam.

The 1969 incident made front-page news even as the nation was embroiled in Vietnam. Based on documents from the time that have since been declassified, at the president's request, national security adviser Henry Kissinger crafted a memo to Defense Secretary Melvin Laird seeking various military options.

When it was shot down, the American EC-121 was gathering signals intelligence on behalf of the U.S., then deeply distrustful of the North Korean regime led by the grandfather of the country's current leader. Months earlier, North Korea had agreed to hand back a U.S. Navy intelligence ship, the USS Pueblo, that it had captured a year earlier.

The American public didn't aggressively push for a response, and the administration decided not to respond. Within days, U.S. spy planes resumed flights over the same waters.

—Nancy A. Youssef

## China Buys North Korean Coal Before U.N. Deadline

By CHUN HAN WONG

BEIJING—China resumed North Korean coal imports in August after a nearly half-year hiatus, just before a total United Nations ban on Pyongyang's coal trade took effect.

China had suspended purchases of North Korean coal in February, in response to a U.N.-set cap on Pyongyang's coal trade set in November 2016, part of sanctions to curb North Korea's nuclear ambitions.

Chinese coal imports from its neighbor this year remained below those limits after last month's shipments.

Chinese customs data released Tuesday shows China accepted about 1.64 million tons of North Korean coal valued at some \$138.1 million in August, when the U.N. Security Council expanded sanctions to a complete halt on coal shipments

and banned Pyongyang from exporting iron, lead and seafood.

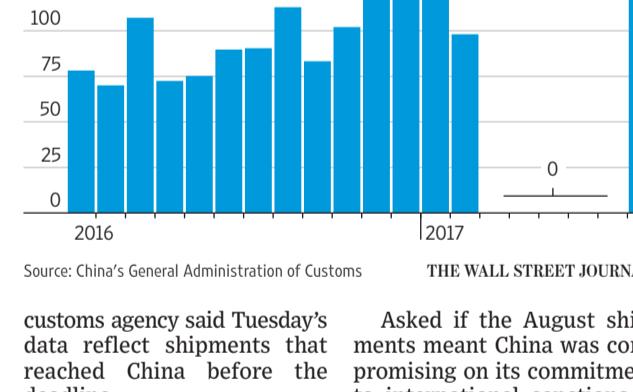
China has been the sole importer of North Korean coal. Tuesday's data show Pyongyang earned more coal-export income in August than in either January or February, when China imported about \$122.5 million and \$98.1 million of North Korean coal, respectively. China's customs agency reported no North Korean coal imports from March to July.

The latest coal shipments preceded a Sept. 5 deadline for U.N. members to implement the August sanctions. Beijing said on Aug. 14 it would comply with those sanctions while continuing to process imports of banned goods until the deadline if those shipments had already reached Chinese territory.

A spokesman for China's

### Under the Wire

China suspended North Korean coal imports earlier this year, but imported \$138 million worth in August, before a total U.N. ban on such shipments took effect.



customs agency said Tuesday's data reflect shipments that reached China before the deadline.

Asked if the August shipments meant China was compromising on its commitment to international sanctions, a

Foreign Ministry spokesman said Beijing has "always strictly implemented" U.N. resolutions.

U.N. sanctions approved in November had capped Pyongyang's annual coal exports at about \$400 million or 7.5 million metric tons, whichever is lower. China imported 4.3 million tons of North Korean coal valued at \$358.8 million from January to August, according to Chinese customs data.

"In theory, China hasn't violated the U.N. sanctions," said Zhao Tong, a nuclear-policy specialist at the Carnegie-Tsinghua Center for Global Policy in Beijing. He said the latest coal shipment will still anger the U.S., which has urged harsher economic curbs on North Korea.

As North Korea's chief trading partner and energy supplier, China plays a central

role in international efforts to dissuade Pyongyang from its aggressive pursuit of nuclear-tipped long-range missiles. Beijing has resisted Washington's calls to support measures it fears could cause its neighbor's collapse.

Mr. Zhao said Beijing may have allowed the August coal shipments to get ahead of further economic sanctions that it fears could destabilize the Pyongyang government.

"China may have decided to back away from an aggressive enforcement of sanctions, and apply a degree of pressure closer to the minimum requirements stipulated by U.N. resolutions," he said, noting that Beijing's February suspension of its North Korean coal trade came while import totals remained well below the U.N. cap.

—Xiao Xiao contributed to this article.

## Mattis Says Diplomacy Remains First Option

By GORDON LUBOLD

NEW DELHI—Defense Secretary Jim Mattis said the effort to avert conflict on the Korean Peninsula remains a diplomatic one, even as the heated rhetoric from both sides threatens to diminish the chances of a peaceful outcome.

"We maintain the capability to deter North Korea's most dangerous threats but also to back up our diplomats in a manner that keeps this as long as possible in the diplomatic realm," Mr. Mattis told reporters during a stop at India's Ministry of Defense on Tuesday.

"That is our goal, to solve this diplomatically, and I believe President Trump has been very clear on this issue," he said.

Mr. Mattis, in town for talks with his counterpart and Prime Minister Narendra Modi, didn't respond specifically to a question about how the rhetoric might be increasing the chances for miscalculation on either side and whether there was a risk of miscalculation.

## Beijing Tightens Up Ahead of Congress

China appears to be battening down the hatches ahead of the Communist Party's 19th National Congress next month, a time when party leaders hope to keep distractions to a minimum.

By Alyssa Abkowitz  
in Beijing  
and Georgia Wells  
in San Francisco

At least, that's how some China observers are explaining the rationale behind the postponing of two Ironman athletic competitions, new restrictions on foreigners traveling to Tibet, and disruptions to the WhatsApp messaging service.

"All the crackdowns are to ensure there's no disturbance to stop what [President] Xi Jinping wants," said Shaun Rein, managing director of China Market Research Group.

"There can't be any surprises."

Although the government hasn't commented on the postponements, restrictions and disruptions, they come as China prepares for its twice-a-decade Congress, which will determine new leaders for the

next five years. Similar restrictions, including limits on online content, were put in place before the 18th Party Congress in 2012 that brought President Xi to power—but China watchers say this time it is more widespread.

In recent days, mainland users of Facebook Inc.'s WhatsApp service have experienced disruptions, ranging from being unable to send photos and conduct video chats to complete blockages. A person familiar with previous outages said service usually has re-

turned within one to two days.

A spokeswoman from the Cyberspace Administration of China declined to say if the agency had blocked WhatsApp, although outages by users were widely reported.

Facebook doesn't say how many WhatsApp users it has in China, where the WeChat messaging app by Tencent Holdings Ltd. is the dominant service with nearly 1 billion users.

Unlike WeChat, WhatsApp uses end-to-end encryption that hides the content of the message from anyone except



Students in Shandong province use scarves to make a flag of the Communist Party of China ahead of next month's Congress.

the sender and recipient, making it difficult for the government to intercept messages.

"That is what makes WhatsApp a pain for institutions in the world that think end-to-end encryption is antithetical to their law-enforcement goals," said Nadim Kobeissi, founder of Paris-based cryptography consulting company Symbolic Software.

Several travel companies that arrange trips to Tibet said they received directives that foreigners can't visit Oct. 18 through Oct. 28.

A customer service representative at Explore Tibet, which runs private and group tours, said only travelers from Hong Kong or the mainland would be permitted to travel during that time. The Tibet Tourism Bureau couldn't be reached for comment.

Meanwhile, the Ironman triathlon series that was acquired by Dalian Wanda Group two years ago said on its website that its races in Chongqing on Sept. 24 and in Hefei on Oct. 22 had both been postponed. The website didn't give a reason, and Wanda didn't immediately return calls for comment.

## WORLD NEWS

# Macron Has Eye on Berlin In Euro Talk

French leader makes case for eurozone integration as German coalition talks loom

French President Emmanuel Macron set out his vision of a more united Europe in a speech aimed at persuading Germany, where Sunday's election results could reinforce doubts about deeper integration in the eurozone.

By William Horobin  
in Paris  
and Marcus Walker  
in Berlin

Mr. Macron repeated his call for a common budget for euro members, an idea with little appeal for most of Germany's political class, but sweetened it with offers of cooperation in areas that could appeal more to Berlin, including migration, security and the environment.

The French leader timed his speech at the Sorbonne university in Paris to influence the post-election debate in Germany, where Chancellor Angela Merkel faces tricky talks to form a new governing

coalition after a result that strengthened populist and EU-skeptical forces.

The outcome of the tussle between the EU's two dominant nations will be central to the eurozone's future. Although the bloc's economy is finally enjoying solid economic growth after years of slow recovery, officials in Paris and Berlin say the euro's members' economies continue to diverge, leaving the region vulnerable to future turbulence such as the debt crisis that pushed the bloc to the brink of collapse in 2010-12.

Ms. Merkel's conservative Christian Democrats came first in Sunday's elections but with a shrunken share of the vote. She is now exploring the scope for a governing coalition with the left-leaning Greens and the pro-business Free Democrats. Such an alliance would have to reconcile major ideological differences on Europe, as on many other issues.

The Free Democrats, known as the FDP, are particularly skeptical about France's push to create a shared eurozone budget to boost investment and fight against economic shocks.

Ms. Merkel also has strong reservations about Mr. Ma-



French President Emmanuel Macron delivering a speech on his proposals for reforming the EU, on Tuesday at the Sorbonne in Paris.

cron's ideas, but she has expressed her willingness to talk about them.

Berlin officials say the chancellor doesn't want to embarrass Mr. Macron by flatly rebuffing him, because Germany is keen for him to succeed in his simultaneous efforts to overhaul France's economy.

"I'm not going to be ruling everything out in advance. We can have more Europe, but it has to lead to more competitiveness, more jobs, and more effectiveness of the European Union," she told a news conference on Monday. "Besides,

we have to talk with the FDP about it first anyway."

Mr. Macron has previously said a budget for the eurozone should be worth several percentage points of the bloc's gross domestic product, and be funded by common borrowing as well as a portion of taxes that are currently levied nationally. He has argued that the eurozone's current design isn't stable enough to survive in the long term, and that it needs a fiscal union to absorb economic shocks, as well as a common finance minister to manage the central budget.

Such ideas have long been anathema to German center-right politicians in Ms. Merkel's party and the FDP. The dominant view in Berlin is that the eurozone's future stability relies on its member countries reforming their national economies to make them leaner and more competitive, rather than on large public-spending plans at the European level.

The FDP was dismissive of Mr. Macron's proposals during the election campaign and is seen in Paris as the biggest foe of the changes Mr. Macron wants. On Monday, FDP leader

Christian Lindner moderated the party's tone, saying he opposes lasting fiscal transfers between euro members but is willing to talk about measures to boost investment in the eurozone, including within the existing EU budget.

France and others in Europe are watching closely to see who will control the German finance ministry in Ms. Merkel's next government. The FDP said before the elections that it would lay claim to the ministry, a major power center in setting the eurozone's finance policies.

# U.S. to Curb Russian Military Flights Over Its Territory

BY BRETT FORREST

WASHINGTON—U.S. officials are preparing to announce restrictions to Russian military flights over American territory under the Treaty on Open Skies in the latest sign of strain in U.S.-Russia relations.

The treaty, part of a suite of arms-control, transparency and confidence-building agreements that proliferated in the late stages of the Cold War, permits its 34 ratified member states to conduct observation

flights over each other's territory while capturing aerial imagery of military personnel and materiel.

Treaty-related tensions intensified over two days in August, when a Russian plane operating under Open Skies flew over U.S. cities including Washington as well as Bedminster, N.J., where President Donald Trump was staying at the Trump National Golf Club.

Those flights, however, aren't the cause of the new restrictions, according to U.S. of-

ficials. Instead, they say Russia is in violation of the Open Skies treaty because the Kremlin imposed restrictions on flights over Kaliningrad, Russia's Baltic Sea enclave, which U.S. officials believe is host to a cache of sophisticated weaponry.

While the treaty allows for a per-flight range of 5,500 kilometers (3,418 miles), Russia has enforced a "sub-limit" of 500 kilometers for flights over Kaliningrad. Since it requires roughly 1,200 kilometers to cover the entirety of Kalinin-

grad during an Open Skies flight, according to Pentagon officials, this restriction compels treaty members to reallocate two flights that would otherwise be used to observe other portions of Russia.

Perhaps more important, this limitation enforces gaps between the flights needed to cross Kaliningrad, providing an incoherent picture of the territory, U.S. officials maintain.

U.S. officials question what the Russian military in Kaliningrad may be doing between

Open Skies flights, stressing the importance of knowing Russian military capabilities at their westernmost expansion.

The treaty's U.S. delegation was scheduled to announce reciprocal countermeasures Tuesday in a meeting of the Open Skies consultative commission in Vienna, a group of officials from member countries, according to officials at the State Department and Pentagon.

"We want to induce Russia to come back into compliance with the treaty," said a State

Department official, adding steps the U.S. takes that are reversible could prod Moscow.

Among options that U.S. officials have considered are limitations of Russian flights over Alaska and Hawaii, according to officials with knowledge of the matter.

For their part, Russian officials say that several countries that are party to Open Skies—including Canada, Georgia, Turkey and the U.S.—have placed limits on access to their territories under the treaty.

## West Bank Attack Kills 3 Israelis

BY RORY JONES

TEL AVIV—A Palestinian gunman killed three members of Israel's security forces at a West Bank settlement, police and medics said, the latest burst of violence in the Israeli-controlled territory.

The attacker approached a checkpoint at the settlement of Har Adar, northwest of Jerusalem, drawing a pistol and firing on the forces at close range, police said. Israeli forces returned fire and shot dead the Palestinian attacker.

Israeli authorities identified the attacker as Nimir Mahmoud Ahmed Jamal, a 37-year-old father of four who had a permit to work in Har Adar.

A preliminary investigation indicated that the attacker had significant personal and family problems, Israel's internal security service said. His wife traveled to Jordan several weeks ago and left him with their children, it added.

The shooting was the latest incident of violence in Israel and the Palestinian territories. It comes days after Palestinian Authority President Mahmoud Abbas warned the United Nations General Assembly that scant progress toward Palestinian statehood could lead to unrest. "We have warned in the past and continue to warn of Israeli policies aimed at entrenching the occupation," Mr. Abbas said in a speech. "These policies stir religious animosity and may lead to a violent religious conflict."

Hamas, the Palestinian militant group ruling the Gaza Strip, called Tuesday's attack a new phase in Palestinian violence against Israel, but it takes responsibility for the incident.

Israeli leader Benjamin Netanyahu blamed the Palestinian Authority and Mr. Abbas for the attack, citing the body for "methodical incitement" to violence against Israelis.

## After a Decade, Brazil Lets In Big Oil Firms

BY PAUL KIERNAN

RIO DE JANEIRO—Brazil will on Wednesday begin reversing what industry officials say was a costly and ultimately disastrous decision a decade ago: setting aside billions of barrels from the Western Hemisphere's largest oil discovery in 30 years for its state-run oil firm at a time when deep-pocketed foreign companies were clamoring to invest.

Brazil removed key acreage from a 2007 auction that could have yielded \$100 billion in signing bonuses plus hundreds of billions more in spending commitments when the price of oil was near record highs, according to several former executives at Western oil companies.

Now, Brazil may generate just a fraction of what it could have as it looks to exploit its oil potential and revive its economy.

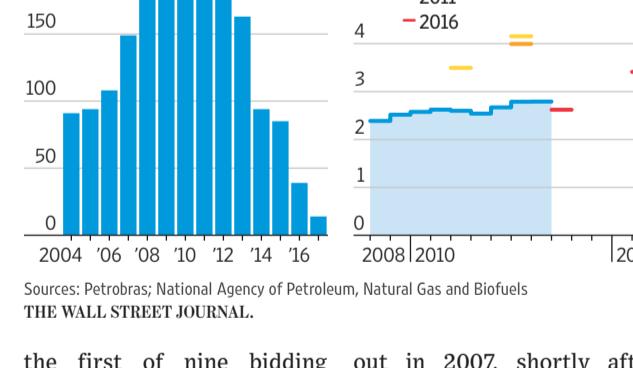
"We are trying to put the country back on track," Energy Minister Fernando Coelho told an oil conference in Houston earlier this year.

An auction on Wednesday is

Falling Short

Brazil and its national oil company have failed to convert huge oil discoveries a decade ago into significantly higher production.

### Exploratory wells concluded



Sources: Petrobras; National Agency of Petroleum, Natural Gas and Biofuels

THE WALL STREET JOURNAL

the first of nine bidding rounds planned through 2019 for areas that could hold roughly 10 billion barrels of recoverable oil, or enough to supply the U.S. for almost a year and a half.

Included in upcoming auctions are areas that Brazil had originally intended to lease

out in 2007, shortly after **Petróleo Brasileiro** SA, or Petrobras, discovered huge reservoirs of crude in an ultra-deep layer known as the sub-salt, off the southeast coast.

At the time, the U.S. shale boom was still a dream, experts were worried that global production might peak and oil

prices were en route to an all-time high. The size and timing of the find appeared so fortuitous, then-President Luiz Inácio Lula da Silva said God must be Brazilian.

Foreign oil companies were desperate for new reserves. "A lot of people were very excited about it," recalled Shafe Alexander, BP's country manager in Brazil.

But days before the auction, Mr. da Silva yanked 41 exploration blocks that were believed to contain sub-salt oil,

after being convinced by Petrobras's former head of exploration and production that it would be a "crime against the fatherland" to open the reserves to other oil companies, according to a former official.

A spokesman for Mr. da Silva defended the former president's decision. "Any country would re-evaluate the situation of an auction when presented with new information about the areas," the spokesman said.

Petrobras, which produces the vast majority of Brazil's oil, has been hobbled by mismanagement and corruption that have forced it to slash

jobs and production targets.

Given Petrobras's problems, Brazilian policy makers say the only solution is foreign capital. In the past year, they have relaxed restrictions on private investment in the sub-salt and eased requirements that oil companies source equipment and machinery in Brazil, which had driven up costs and limited interest from the private sector.

But Brazil faces a very different market from 2007.

Crude prices have fallen to around \$55 a barrel from a peak of nearly \$150 in 2008. The shale boom allowed the U.S. to practically double its output and presents a quicker, cheaper alternative to deep water ventures like Brazil's, where a single well can cost \$100 million to develop.

Rather than peak production, majors now worry about a peak in demand as consumers shift to natural gas and governments promote renewable energies. Forecasters now repeat the phrase "lower for longer" to summarize the outlook for oil prices.

—Bradley Olson in Houston contributed to this article.

### CHINA

#### Food-Import Rules Delayed Two Years

China postponed for two years a regulation requiring certificates guaranteeing the quality and safety of all food imports, after pushback from the U.S. and European countries.

The delay came just before the rule's Oct. 1 deadline. Western trade groups said implementation in effect would cut China off from much of the global food supply. The rule covers all food products, from raw ingredients to processed items, requiring certification for each shipment.

China notified the World Trade Organization on Monday that it will institute a two-year transition period for the rule, a representative at a government office that reports trade measures to the WTO said by telephone Tuesday. She declined to give a reason for the change.

A 2015 China food-safety law required that food and beverage importers obtain a certificate from an imported product's country of origin guaranteeing compliance with Chinese standards. Western trade groups said that by covering all food shipments rather than just higher-risk foods, the measure was out of step with global practices.

—Eva Dou

### UGANDA

#### Fistfights Erupt In Parliament

Fistfights and chair-throwing broke out in Uganda's parliament ahead of a debate over whether to grant President Yoweri Museveni another term in office.

The move to extend his rule has been met with opposition from civic rights activists, the political opposition, religious leaders and even some members of Museveni's ruling party. He has been in power for more than three decades.

Existing rules say the leader



Government and opposition lawmakers came to blows in Uganda

## U.S. NEWS

# Trump Again Criticizes Attorney General

President knocks Jeff Sessions and says his feud with NFL players 'has really taken off'

By REBECCA BALLHAUS

WASHINGTON—President Donald Trump again indicated he was dissatisfied with his attorney general, following comments over the summer in which he criticized Jeff Sessions and suggested he might fire him.

The president also said at a White House dinner Monday that he had the upper hand in his dispute with the National Football League, according to guests at the gathering.

Mr. Trump expressed frustration with Mr. Sessions' March decision to recuse himself from the Justice Department's probe of Russian election meddling, according to three people at the dinner for conservative leaders.

"You could feel it dripping with venom," one dinner guest said of Mr. Trump's comment. "It was something else."

Others in the room characterized the conversation about Mr. Sessions as less tense. "He's candid, which shows respect for his guests," said American Conservative Union Chairman Matt Schlapp.

"It was friends getting together and dishing on politics and the state of the country," said Mr. Schlapp, whose wife, Mercedes Schlapp, works in the White House communications office. He called the dinner "cordial."

Mr. Trump was answering



President Trump again expressed frustration with Attorney General Jeff Sessions, right, for recusing himself from the election probe.

Mr. Trump has blamed Mr. Sessions' recusal from the probe for the Justice Department's appointment of Robert Mueller as special counsel in charge of the investigation, which the president has called a "witch hunt." Mr. Mueller's appointment came days after Mr. Trump fired Federal Bureau of Investigation Director James Comey, who had been heading the probe.

In July, Mr. Trump criticized his attorney general's leadership of the FBI, called him "beleaguered" and declined to say in an interview with The Wall Street Journal whether he would fire him. He also told the New York Times he never would have hired Mr. Sessions had he known he would recuse himself from the Russia probe.

During Monday's dinner, Mr. Trump also discussed health care and tax reform. He said the White House was still "very serious" about passing the Republicans' latest effort to repeal the Affordable Care Act, although the legislation suffered a likely death blow earlier in the day when Sen. Susan Collins's declared opposition left it without enough votes.

Mr. Trump called Sen. John McCain (R., Ariz.), who said last week he wouldn't support the health-care bill, "disgraceful."

The conversation also turned to vacant court seats. Mr. Trump's guests praised him and his administration for the successful confirmation process of Supreme Court Justice Neil Gorsuch earlier this year.

## Online Interactions Called 'Benign'

By BYRON TAU

WASHINGTON—Roger Stone, a longtime friend and adviser to Donald Trump, released correspondence with an online entity that U.S. intelligence agencies said was used by Russian government-linked entities to distribute embarrassing information about Democrats during the 2016 election.

The disclosures came in a 47-page opening statement in advance of Mr. Stone's Tuesday appearance in front of the House Intelligence Committee. He was to be questioned in the committee's probe into Russian activity during the 2016 election.

Mr. Stone described his interactions with the entity known as Guccifer 2.0 as "limited" and "benign," and he released screenshots of what ap-

peared to be messages exchanged privately on the social-media platform Twitter. They show about a dozen messages Mr. Stone received from Guccifer 2.0 in August and September 2016, as well as three messages he sent in response.

Mr. Stone, a veteran Republican operative who advised Mr. Trump during last year's campaign, said he resented "any allegation that I would collude with the oppressive Russian state to affect the outcome of the 2016 presidential election."

The material shows the conversation began in August 2016 after Mr. Stone wrote an article for the right-wing website Breitbart News in which he argued that Guccifer 2.0 wasn't a Russian asset but instead acted alone. The U.S. intelligence committee later as-

sessed that the material released by Guccifer 2.0 had been pilfered by the Russian government.

Guccifer 2.0 has denied that it was working on behalf of Moscow, claiming Romanian nationality.

A few days after writing the article, Mr. Stone sent a private Twitter message to the Guccifer 2.0 account, saying he was "delighted" the entity was back on Twitter, according to the material he released. Twitter had briefly suspended the account.

According to Mr. Stone's release, Guccifer 2.0 responded: "thank u for writing back, and thank u for an article about me!!!"

Guccifer 2.0's interactions with U.S. political operatives have long been of interest to congressional investigators. A Republican political operative

in Florida received 2.5 gigabytes of Democratic Party documents from Guccifer 2.0 and posted some on a blog called HelloFLA.com, The Wall Street Journal reported in May.

The U.S. intelligence agencies have concluded the material was likely stolen by Russian military intelligence, but many of Mr. Trump's allies and associates, including Mr. Stone, have questioned that conclusion.

The Guccifer 2.0 Twitter account and persona disseminated personal information about Democrats stolen from the Democratic National Committee and other Democratic groups during the 2016 campaign.

According to a January report from the U.S. intelligence community, the highest levels of the Russian government were involved in directing the

electoral interference to boost Mr. Trump at the expense of his Democratic rival Hillary Clinton.

Former Federal Bureau of Investigation Director Robert Mueller is leading a team probing Russia's influence on the election and whether Mr. Trump's campaign or associ-

ates colluded with the Kremlin. Separate congressional committees are conducting their own investigations.

The Kremlin has denied meddling in the election, and the White House has said it didn't collude with Russia.

—Rebecca Ballhaus contributed to this article.

## McConnell's Stature as Strategist Bruised

By JANET HOOK  
AND KRISTINA PETERSON

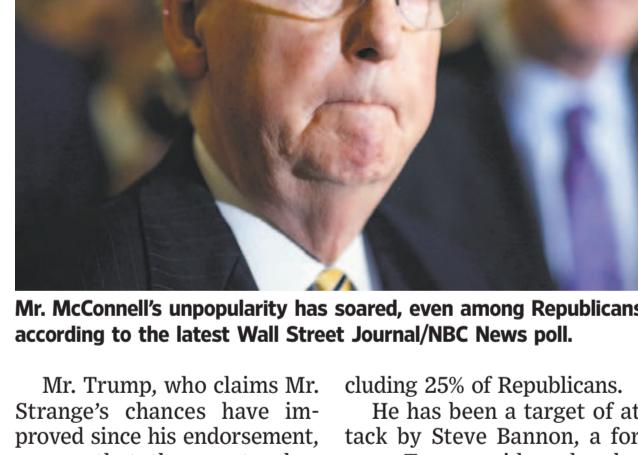
Senate Majority Leader Mitch McConnell's political clout and reputation as a master legislative strategist are being put to the test this week, and the Kentucky Republican is at risk of failing on both fronts.

His second attempt to pass legislation to repeal and replace the Affordable Care Act lacks enough support to pass and prospects for reviving the bill before a Sept. 30 legislative deadline are dim.

Meanwhile, Mr. McConnell's favored candidate to succeed Attorney General Jeff Sessions in an Alabama GOP runoff election on Tuesday is lagging in the polls. The majority leader has thrown the full weight of his prestige and political organization behind Sen. Luther Strange, who was temporarily appointed to fill the Sessions seat and is running behind evangelical former state judge Roy Moore.

To make matters worse for the 32-year Senate veteran, President Donald Trump—who is also backing Mr. Strange and the health care bill—is poised to cast blame on Mr. McConnell for either loss.

Mr. Trump has repeatedly criticized Mr. McConnell and other congressional Republicans for failing to pass the health legislation that was the party's signature campaign promise for the past four election cycles.



Mr. McConnell's unpopularity has soared, even among Republicans, according to the latest Wall Street Journal/NBC News poll.

Mr. Trump, who claims Mr. Strange's chances have improved since his endorsement, argues that the senator has been dragged down by association with Mr. McConnell.

"Mitch is not, polling-wise, the most popular guy in this country," Mr. Trump said Monday in an Alabama radio interview. "They like to label him as Mitch's best friend, and he's not. He hardly even knows him. He will be fighting Mitch."

Mr. McConnell's office declined to comment.

Indeed, after months of being berated by Mr. Trump for Congress's failure to enact his agenda, Mr. McConnell has seen his unpopularity soar, even among Republicans. The latest Wall Street Journal/NBC News poll found that 41% have a negative view of Mr. McConnell, in-

cluding 25% of Republicans.

He has been a target of attack by Steve Bannon, a former Trump aide who has backed Mr. Moore in the Alabama contest since leaving the White House.

Speaking at a get-out-the-vote rally for Mr. Moore in Alabama on Monday night, Mr. Bannon fired up Moore supporters by lambasting Mr. McConnell and his Washington allies. "Mitch McConnell and this permanent political class is the most corrupt, incompetent group of individuals in this country," he said. "You get to show them that this populist, nationalist, conservative movement is on the rise."

Shrugging off the fact that Mr. Trump had endorsed Mr. Strange, Mr. Bannon said, "A vote for Judge Roy Moore is a

vote for Donald J. Trump."

Mr. McConnell has strongly fought for Mr. Strange throughout the special-election contest that began in an August GOP primary that winnowed the field. The winner of the Moore-Strange runoff will face Democrat Doug Jones, a former U.S. Attorney, in a Dec. 12 general election.

The Senate Leadership Fund, a super PAC associated with Mr. McConnell, has spent a record \$9 million in support of Mr. Strange. That big financial and political commitment made it easy for Mr. Strange's opponents to portray him as a creature of the McConnell party establishment—a political albatross Mr. Strange tried to shed at last Friday's rally with Mr. Trump when he said he would "stand up" to Mr. McConnell.

The stakes for Mr. McConnell in Alabama reach far beyond the potential for an embarrassing loss. A victory by Mr. Moore—if he goes on to win the general election in December—will send to the Senate a new member who has made a campaign commitment to fight the establishment when he gets to Washington.

"Roy Moore will make Rand Paul look like a member in good standing of the Republican caucus," said Chris Krueger, a political analyst at Cowen and Co., referring to the Kentucky Republican who often parts ways with the GOP leadership.

electoral interference to boost Mr. Trump at the expense of his Democratic rival Hillary Clinton.

Former Federal Bureau of Investigation Director Robert Mueller is leading a team probing Russia's influence on the election and whether Mr. Trump's campaign or associ-

ates colluded with the Kremlin. Separate congressional committees are conducting their own investigations.

The Kremlin has denied meddling in the election, and the White House has said it didn't collude with Russia.

—Rebecca Ballhaus contributed to this article.

## GOP Health-Law Push Nears End of the Line

By STEPHANIE ARMOUR  
AND KRISTINA PETERSON

WASHINGTON—The Republicans' latest effort to repeal large parts of the Affordable Care Act this year suffered a likely death blow when Sen. Susan Collins's declared opposition left it without enough votes to pass.

With no Democrats expected to support the legislation, Republican leaders can lose no more than two GOP votes to pass the bill, and Sens. Rand Paul of Kentucky and John McCain of Arizona had already said they wouldn't support it. That leaves no clear path forward for the bill's backers.

Ms. Collins's opposition confronts Senate Majority Leader Mitch McConnell (R., Ky.) with the decision of whether to scrap a vote he said he intended to hold this week.

Mr. McConnell will be unable to pass the legislation without flipping one of the three defectors, none of whom left much wiggle room in their declarations of opposition.

The Congressional Budget Office released a partial analysis of the latest GOP bill late Monday, concluding the number of people with comprehensive health coverage would be "reduced by millions." The CBO also estimated that by 2026, the bill would cut about \$1 trillion in Medicaid spending, resulting in millions of people

being left out of the program.

The Republicans' latest proposal would take much of the 2010 law's funding and transform it into block grants, which states could use to shape their own health-care systems. Ms. Collins said the earlier and newer versions of the bill both "open the door for states to weaken protections for people with pre-existing conditions, such as asthma, cancer, heart disease, arthritis and diabetes."

Ms. Collins said in a statement she was concerned by the rushed process used to consider the bill co-sponsored by her Republican colleagues, Sens. Lindsey Graham of South Carolina and Bill Cassidy of Louisiana.

Backers of the bill had modified its text in an urgent attempt to make it more palatable to wavering senators, but Ms. Collins of Maine said those changes didn't help matters.

"The fact that a new version of this bill was released the very week we are supposed to vote compounds the problem," she said.

Sen. Chuck Schumer of New York, the chamber's Democratic leader, said the GOP's latest plan was a "wholesale dismantling of our health-care system that would create chaos in many places."

"Once repeal is off the table," he told Republicans Monday night, "we want to work with you to improve the existing system."

## U.S. NEWS

# Is the GOP Tax Plan Bad for High-Earners?

BY RICHARD RUBIN  
AND LAURA SAUNDERS

**WASHINGTON**—Today, a business owner making \$500,000 gets taxed much like a corporate executive with a \$500,000 salary. How they make their income doesn't matter much.

**ANALYSIS** That could change dramatically under Republican plans aimed at driving down tax rates on business income, leaving high-income wage earners with much less to gain from a tax overhaul.

Republicans, eager to drive down business tax rates in a bid to boost economic growth, want roughly similar tax rates for corporations and for so-called pass-through firms that report business income on the individual tax returns of their owners.

For them, lowering the 35% corporate tax rate requires also lowering the 39.6% top rate for pass-through business income, even though creating a new special rate for that business income leaves a potentially large gap with the top rate for high-income wage earners.

The exact contours of the GOP tax agenda aren't set. Top lawmakers and administration officials say they will release

another blueprint in the coming days.

The 2016 House GOP blueprint called for a 20% corporate tax rate, a 25% tax rate on pass-throughs and a 33% top individual rate. In April the White House proposed a 35% top rate for individuals. President Donald Trump has said he might not cut taxes for the wealthiest Americans, and recently Republicans have talked a lot less about the importance of reducing the 39.6% top tax rate on ordinary income. In the end that rate might not come down much and some deductions could go away.

With GOP senators agreeing to, at most, \$1.5 trillion in tax cuts over the next decade, there is a limited amount to go around. Republicans are focused on cutting business taxes and offering a larger standard deduction for middle-income households.

The emerging Republican plan would "open a gulf between wages and pass-through business income that has never existed before, putting the high-wage earners at a disadvantage," said Andy Mattson, a certified public accountant with Moss Adams in Campbell, Calif.

Keeping the top tax rate on wages near 39.6% would be a

way for Mr. Trump to defend his argument that he isn't prioritizing tax cuts for the rich, even if other pieces of the tax plan favor wealthy business owners, investors or heirs of large estates.

Under current law, pass-through businesses include partnerships, limited liability companies and S corporations. The income they earn doesn't face the corporate income tax and then a potential second tax layer on capital gains or dividends; instead, it passes through to owners' tax returns and is taxed at their individual rates.

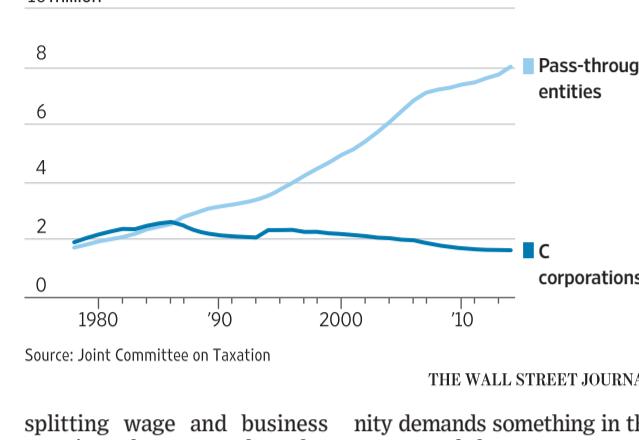
Such firms reported more than 40% of net business income in 2014, according to the congressional Joint Committee on Taxation.

They include global law and accounting firms, real-estate investors, hedge funds, doctors' offices and manufacturers. About 60% of pass-through income goes to households making over \$500,000, according to the Tax Policy Center.

In the past, Republicans have seized on the importance of pass-through income to argue against raising the top rate on individuals. They warned tax increases would punish successful small businesses, although many aren't small. By

### Pass-Through Gains

Tax changes and new types of businesses have made pass-through entities more popular.



Source: Joint Committee on Taxation

of business owners who don't generate significant high income, because their top rates are below the 25% proposed rate in the House plan. The biggest winners are high earners who can classify their earnings as business income.

"The real fight here is going to be over what income qualifies for the rate reduction and what income doesn't," said Warren Payne, a former House GOP aide who wrote a policy paper for the Bipartisan Policy Center on pass-through taxation.

For more than a year, Republicans have been floating alternatives for defining the line between wage and business income. They haven't settled on anything. One option would assume that 70% of pass-through income is taxable at the wage rate and 30% at the lower business rate.

Alternatively, Treasury Secretary Steven Mnuchin said certain service providers wouldn't get the lower rate. He named accountants specifically, but others could include doctors, lawyers, consultants and architects.

"There is a difference between high-wage income or some other [business] income," said Sen. Mike Crapo (R., Idaho). "It doesn't have to all be treated identically."

The challenge for policy makers will be separating wage income from business income for high earners. The proposed lower pass-through rate wouldn't help the large share

splitting wage and business taxation, the approach under consideration could undercut future arguments against raising the top rate.

Lowering the corporate rate to improve U.S. investment incentives is a core driver of the planned tax overhaul.

Politically, it is nearly impossible to cut corporate rates without cutting the rate on pass-through income. Pass-throughs, prominent in every congressional district, form an essential part of the Republican coalition.

"The pass-through commu-

nity demands something in the process of the corporate rate going down," said Douglas Holtz-Eakin, president of the center-right American Action Forum.

"There is a difference between high-wage income or some other [business] income," said Sen. Mike Crapo (R., Idaho). "It doesn't have to all be treated identically."

The challenge for policy makers will be separating wage income from business income for high earners. The proposed lower pass-through rate wouldn't help the large share

Corker said.

One such tax break is the individual deduction for state and local taxes, especially important to high-income residents of high-tax states such as New York and New Jersey. Getting rid of this deduction could face resistance from House Republicans representing these states.

The party will also likely look at limits on the ability of businesses to deduct interest costs, which could face resistance from real-estate and finance firms. Other deductions and credits are on the chopping block, too, such as breaks for renewable energy.

Most breaks don't amount to much in a tax plan in the scale of trillions of dollars, meaning many different deductions and credits need to be targeted to have much of an impact. Conceding one small tax break to one constituency might lead to demands for concessions to others.

Republicans have other options, including phasing in some rate cuts to minimize the 10-year cost, Mr. Pomerleau said.

"There is probably an endless number of...things you could do to get a plan to fit within a budget number," he said.



Sen. Bob Corker (R., Tenn.), leaving a meeting of GOP senators last week on Capitol Hill.

Trump administration room for its agenda while forcing Congress to make difficult decisions about taking away tax preferences.

"Giving them some headroom to make this work, to me, was an important thing to do," Mr. Corker said. He has come under criticism for abandoning a revenue-neutral tax policy, which wouldn't expand budget deficits at all, that Senate Majority Leader Mitch McConnell (R., Ky.) and others repeatedly backed this year.

Mr. Corker said how he would vote on the ultimate tax bill will depend on assessments on the economic growth it is likely to produce and whether that growth is enough to keep budget deficits from growing.

The compromise "kept enough pressure on Congress to do things like doing totally away with state and local deductions," Mr. Corker said. "I care deeply about deficits, and at the end of the day, this cannot produce deficits."

The \$1.5 trillion in budget plans doesn't include an assumption that tax cuts will spur faster growth. Even if Republicans assume tax changes will help stoke growth, they will still face tough decisions about eliminating popular tax breaks to pay for the cuts, Mr.

reached by Sens. Bob Corker (R., Tenn.) and Pat Toomey (R., Pa.) in the Budget Committee that would be locked into the budget resolution governing the tax debate. A budget resolution, which hasn't yet been adopted, is necessary because it lets Republicans pass a subsequent tax bill on a simple-majority vote in the

Senate without Democratic support, using a procedure known as reconciliation.

Under this agreement, the

\$1.5 trillion would be the maximum tax cut over the next decade. Mr. Corker, who has expressed concern about budget deficits, said in an interview that he agreed to the compromise because it gave the

2010 Affordable Care Act. "To fit every policy you want, you need a full-size SUV, but at best you have a midsize crossover," said Sage Eastman, a former Ways and Means GOP aide. "Some stuff just isn't going to fit, no matter how much cramming you do."

That \$1.5 trillion benchmark came from an agreement

reached by Sens. Bob Corker (R., Tenn.) and Pat Toomey (R., Pa.) in the Budget Committee that would be locked into the budget resolution governing the tax debate. A budget resolution, which hasn't yet been adopted, is necessary because it lets Republicans pass a subsequent tax bill on a simple-majority vote in the

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The complaints provide a window into the world of big-time college sports that has long been troubled by rumors of corruption and whispers that underground intermediaries have gained outside power to steer high-school recruits to colleges in exchange for kickbacks from agents, financial advisers and powerful sneaker companies.

As the governing body of college athletics, the NCAA has the broad jurisdiction to investigate such alleged pay-for-play activity, which is illegal under its rules of amateurism.

But the fraud allegations unsealed Tuesday stretch beyond any violations the NCAA has ever uncovered.

Among the schools implicated are the country's top college basketball teams with proud histories and expectations to compete for the national championship every season.

Louisville has already been tarnished by recent allegations of misconduct. Hall of Fame coach Rick Pitino was suspended in June and the school was punished with four years of probation and risked losing its 2013 title for its involvement in a sex scandal that included charges of coaches lavishing adult entertainment on basketball players and recruits.

Mr. Gatto is accused of getting \$100,000 to a player so that he would attend a university that has an apparel con-

tract with Adidas.

The description in the

complaint of the university—a

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## U.S. NEWS



Jose Garcia Vicente walked through rubble of his destroyed home in Aibonito, Puerto Rico, on Monday.

### Justice Department Seeks to Combat Disaster-Aid Fraud

The Justice Department is directing U.S. attorney's offices around the country to improve efforts to target fraud in the disaster-relief efforts that arose after a series of devastating hurricanes pummeled the nation.

Deputy Attorney General Rod Rosenstein, in a memo dated Sept. 22, directed each office to log and track all disaster-fraud cases relating to major national disasters. He asked the offices to direct all complaints to an office within the Justice Department's criminal division called the National Cen-

ter for Disaster Fraud. The memo also required each U.S. attorney's office to designate a point person for the issue.

The Center for Disaster Fraud has already received "hundreds of complaints from across the country" of alleged fraud in the wake of recent hurricanes, Mr. Rosenstein wrote. "This issue warrants a coordinated, nationwide response," he wrote.

The directive came as Puerto Rico and states from Texas to Florida begin rebuilding homes, businesses and infrastructure in the wake of Hurricanes Maria, Irma and Harvey, which left an estimated tens of billions of dollars in damage in their wake. Billions of dollars in federal aid is expected to help in that effort.

A catastrophe-modeling firm estimated on Monday that Hurricane Maria, which has left much of Puerto Rico without power and homes and infrastructure destroyed, caused an estimated \$40 billion to \$85 billion in insured losses.

Harvey, which made landfall in Texas in August, caused more than \$10 billion in insured losses, the firm, AIR Worldwide, said. That doesn't include losses borne by the National Flood Insurance Program, which provides most residential flood insurance.

Hurricane Irma, which passed through the Caribbean before reaching Florida this month, caused \$32 billion to \$50 billion in insured losses in the U.S. and the Caribbean, AIR estimated.

—Aruna Viswanatha

# Lawmakers Pursue Aid for Puerto Rico

By SIOBHAN HUGHES

SAN JUAN, Puerto Rico—U.S. lawmakers, worried about the devastation to Puerto Rico after a powerful hurricane struck the island, are pushing for quick approval of relief funding while bracing for a battle about financing a new power system in the U.S. territory.

Heading to Puerto Rico to assess the damage, Sen. Marco Rubio (R., Fla.) ran through the island's immediate challenges, including power outages stemming in part from widespread damage to transmission lines and a dearth of trucks, other equipment and personnel to begin the restoration process.

"These are U.S. citizens and they deserve the same response as Americans on the mainland," Mr. Rubio said on a flight to the territory.

President Donald Trump said he would travel to Puerto Rico on Oct. 3 to survey the damage left by Hurricane Maria, which he said "literally destroyed" the island. The president said he may also stop at the U.S. Virgin Islands, also hit by the hurricane.

"That island was hit as hard as you can hit," said Mr. Trump, a Republican, referring to Puerto Rico. "People have never seen anything like that."

U.S. officials said that Puerto Rico faces a longer road to recovery than any

other part of the U.S. hit by a hurricane, partly because the island nation needs to ship and fly in equipment and personnel that can be trucked to states like Florida and Texas. Puerto Rico already faced financial hardship following a yearslong recession and population drain, along with an aging electricity system.

Gov. Ricardo Rosselló has warned that the territory's 3.4 million residents are facing a humanitarian crisis.

"What Puerto Rico is experiencing after Hurricane Maria is an unprecedented disaster. The devastation is vast," he said. "Given Puerto Rico's fragile economic recovery prior to the storms, we ask the Trump administration and U.S. congress to take swift action."

Puerto Rico's resident commissioner, Republican Jennifer González-Colón, was set to meet with House Speaker Paul Ryan (R., Wis.) on Tuesday to outline the area's dire situation. Mr. Ryan, who on Monday said in a statement that "the stories and images coming out of Puerto Rico are devastating," has told her that he plans to move a relief package in October, she said in an interview.

"The damage is extensive," she said. "We were thrown back 30, 40 years."

Ms. González-Colón said that she is waiting for an offi-

cial assessment, but that the damage from Hurricane Irma was estimated on a preliminary basis at \$1 billion, and that Hurricane Maria "hit us like 20 to 30 times worse." Based on that formula, she floated a price tag of \$20 billion.

On Monday, the usually bustling area of Old San Juan was nearly empty. Cars were lined up for gas, tree limbs littered the ground and roofs and walls were blown out of buildings. At the airport, passengers trying to leave remained stranded as planes carrying relief supplies competed with commercial air travel.

Relief workers with no place to stay were starting to be housed on ships. The Coast Guard, wary of the potential for chaos, had deployed special agents with fatigues and large guns to escort trucks replenishing automated-teller machines with cash.

Lawmakers are starting to prepare for a fight over the state power company, known as Prepa, which has significant short-term and long-term needs. Without power, the island can't manage basic functions like directing big ships into ports. But to set up a reliable power system will require expensive modernization, a subject that is likely to spur strong feelings among conservative Republicans, for whom financial mismanagement is a red flag.

## Colleges Move to Close Gender Gap in Science

By MELISSA KORN

As more high-paying jobs require a degree and expertise in things like computer coding or mechanical engineering, colleges and universities are racing to fill a pronounced void in qualified candidates. One place they are making extra effort is among women.

The Labor Department estimates there will be 510,900 engineering job openings in the U.S. by 2024, and an additional 426,900 software development and programming jobs will be available, all requiring at least a bachelor's degree.

While many schools have grown enrollment in science, technology, engineering and mathematics, or STEM, fields in recent years, experts say the programs' output falls short of where the country needs to be in coming years. Administrators say one way to help bridge the gap will be to bring more women into the field.

Women make up more than half of students on U.S. college campuses, but receive only about two of every 10 degrees in fields such as computer science and engineering, according to federal data.

Colleges have launched aggressive marketing campaigns, tweaked curricula and made efforts to promote real-world applications of science and technical fields in a bid to bring more women into the fields.

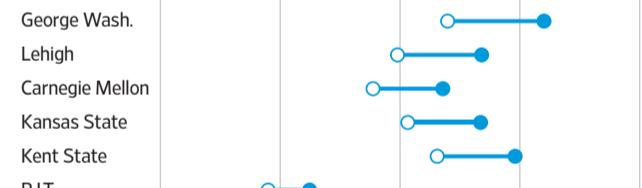
"Getting more women into STEM is about growing the pie," said Matt Sigelman, chief executive of Burning Glass Technologies, a labor-market data firm. Figures on how long job postings in those fields stay up "suggest that employers are desperate for talent. Full stop."

According to a Wall Street Journal analysis of U.S. Department of Education data, compiled by labor market analytics firm Emsi, women as a

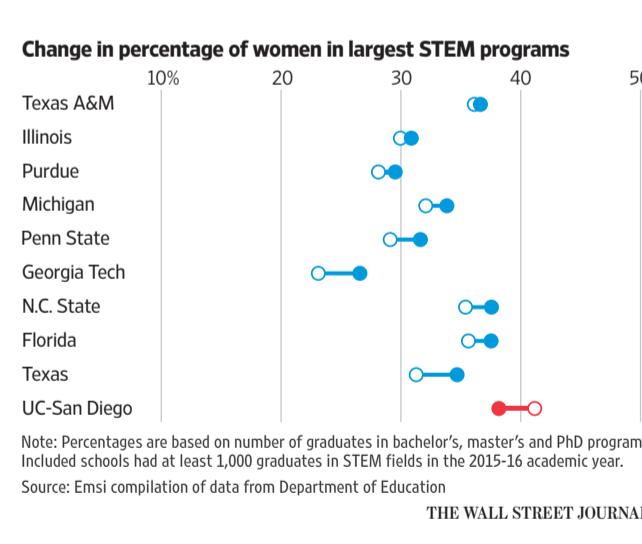
### More Women in STEM Programs

The share of STEM degrees awarded to women has increased at a number of the nation's largest producers of such graduates.

#### Biggest increase in percentage of women in STEM



#### Change in percentage of women in largest STEM programs



Note: Percentages are based on number of graduates in bachelor's, master's and PhD programs. Included schools had at least 1,000 graduates in STEM fields in the 2015-16 academic year.

Source: Emsi compilation of data from Department of Education

THE WALL STREET JOURNAL

share of STEM degree recipients at the bachelor's level and above increased at nine of the 10 largest such programs between 2012 and 2016. Six now award at least one-third of those degrees to women.

The needle is moving fast in some corners of the country.

At Florida State University, 42% of the nearly 2,200 STEM graduates from bachelor's, master's and doctoral programs in 2016 were women, up from 33% in 2012.

"Those gaps aren't going to

close themselves without some commitment, some effort and some resources," said Kevin Miller, a senior researcher at the American Association of University Women, which advocates for gender equity in education.

Worcester Polytechnic Institute in Massachusetts has used a number of strategies to enroll and retain women—this fall 43% of first-year students are women, a 10-point jump from last year and up nearly 20 points in the past decade.

Overall, the share of STEM

graduates from WPI rose to 31% from 27% between 2012 and 2016. "There's no doubt that we've been putting our shoulder into this challenge for a long time," said President Laurie Leshin.

While small institutions like Harvey Mudd College also posted hard-fought gains, experts say a substantial shift in the gender balance of STEM workers will require action by the bigger institutions that mint thousands of graduates a year.

Columbia University has been hosting more events for aspiring women engineers, allowing teens to engage with faculty and college students, which helps solidify their interest in the field and lets them see the community of women engineers already on campus. That school churned out 3,722 STEM graduates in the 2015-16 academic year, 42% of whom were women.

This fall, 49% of Columbia's incoming first-year undergraduate engineering stu-

dents are women, a record.

Meanwhile, Carnegie Mellon has tweaked the message it sends to prospective students in a bid to broaden its appeal, emphasizing that engineering students can minor or double major in fields such as French literature, as about 30% of required coursework can be taken outside engineering, math and science.

Forty-three percent of new engineering undergraduates at the college are women this fall, up from 32% in 2013.

## U.S. WATCH

### ECONOMY

#### New-Home Sales Declined in August

U.S. new-home sales continued to fall in August, and the supply of available homes expanded. Purchases of newly built single-family homes fell 3.4% to a seasonally adjusted annual rate of 560,000 in August, the Commerce Department said Tuesday, the second straight monthly decline and hitting their lowest level

since December. That was below the 591,000 sales pace that economists surveyed by The Wall Street Journal had expected.

More broadly, new-home sales were up 7.5% in the first eight months of 2017 compared with a year earlier. Supply levels continued to rise in August. At the current sales pace, there were 6.1 months of new homes on the market at the end of the month, a figure that has crept up in recent months and in August hit its highest level since

July 2014. The median sale price for a new home sold in August was \$300,200.

The Commerce Department

### LAW ENFORCEMENT

#### Homicide Rate Rises For a Second Year

Violent crime and homicide rates rose in the U.S. in 2016 for the second consecutive year, driven in part by a jump in murders in large cities, according to national data released Monday by the Federal Bureau of Investigation.

The Trump administration seized on the report as fur-

ther evidence that the U.S. is experiencing a surge in deadly violence.

Attorney General Jeff Sessions last week previewed the FBI's data release in a speech, saying it would show that "violent crime rose again. Murder rose. Aggravated assault, rape, and robbery rose."

Last year, violent crime rose nationally by 4.1%, to 386 per 100,000 residents, and murders increased by 8.6%, the FBI reported.

Chicago in particular faced an increase in deadly violence, recording 287 more murders last year than in 2015. Houston, Denver and San Antonio also saw increases in their violent crime and homicide rates.

Suburban areas recorded a slight rise in violent crime and murder rates, while rural areas tallied an increase in violent crime but held steady in terms of homicides, according to the FBI's Uniform Crime Report.

—Del Quentin Wilber

## IN DEPTH

# JUICE

*Continued from Page One*  
disease was found in the state, according to measurement firm Nielsen.

Making matters worse, Hurricane Irma this month hit a direct blow on Florida's citrus groves, knocking 50% of developing oranges off trees across the state, according to the University of Florida Institute of Food and Agricultural Sciences. Trees with roots already weakened by greening were sitting in 4 feet of water in some of Florida's southern areas earlier this month.

During the storm, nurseries quarantined to keep out the disease lost roofs, and scientific laboratories working on anti-greening projects lost power, potentially compromising research years in the making.

Southern Gardens, based in Clewiston, Fla., is one of the largest producers of orange juice in the U.S., supplying juice to nearly every major brand and private label. It said that its engineered groves didn't suffer hurricane damage but that its other groves around the state lost large amounts of fruit.

California oranges, which are mostly grown for eating, haven't been widely affected by greening, and noncitrus crops aren't affected.

The disease's carrier is the Asian citrus psyllid, a non-native insect so tiny it can be mistaken for a speck of pollen. It travels from grove to grove with little more than a light breeze and is undeterred by pesticides that can't eradicate it entirely. It spreads the *Candidatus Liberibacter asiaticus* bacteria as it sucks sap from the plants.

Some growers blame trees shipped to the U.S. from Asia for bringing in the bug. A series of hurricanes in 2004 helped spread the disease throughout Florida.

Since 2009, the USDA has invested more than \$400 million to study resistant plants, pesticides and other chemicals to attack the disease.

The technology Southern Gardens is using, developed by Texas A&M University, inserts a gene that is a part of the immune system of spinach into the genetic structure of an orange. The modified cells grown

in a lab eventually shoot out roots and are planted in soil and develop into trees. The project is among Florida's most promising efforts for a cure, even though the trees are still five years away from producing fruit.

The company is also experimenting with adding a spinach gene to a harmless virus naturally living inside the "phloem"—the vascular system of the tree—without affecting the genes of the tree itself.

It's a yearslong process. Scientists wait for psyllids to come to the grove naturally to infect the trees, and then see if they are resistant to greening. "All it takes is one hurricane and you're back to square one," said Michael Rogers, director of the Citrus Research and Education Center at the University of Florida Institute of Food and Agricultural Sciences.

**'God only made one type of orange. We don't have a magic tree.'**

Other gene therapies scientists are researching, including attempting to turn off the citrus genes that aid the disease, aren't as far along as Southern Gardens' engineered fruit project, he said. Ideas such as testing penicillin in oranges, heating trees to kill the bacteria, and growing citrus under protective screening have been impractical for juice fruit or unsuccessful.

"It's just a race against the clock," Mr. Rogers said. "We need to get these trees to growers that are still in the business."

Within the industry and among consumers, there are questions about the use of genetically modified foods, which are widely found in grain crops such as corn and soybeans but are less common in fruit. With consumers moving away from the products, there is a risk that food companies won't be willing to buy genetically modified juice, no matter how successful the science.

"God only made one type of orange," said David Crews, a small orange grower in Lake Wales, Fla. "We don't have a magic tree."

Southern Gardens said reg-

ulators require its experimental trees be tested in real-life conditions to ensure that the crops aren't harmful to the environment, and that officials from the USDA's Animal and Plant Health Inspection Service regularly visit.

Brazil has stepped up orange production, threatening to deliver the final blow to the U.S. industry. Brazil's larger groves and different practices have helped control the spread of greening. Psyllids, the disease-carrying insects, are attracted to new shoots, which sprout more frequently in Florida than in Brazil because trees are grown in warmer, more humid areas.

The USDA estimates that Brazil's total output of orange juice will rise 55% this year from last year, with exports rising 28%. Brazil's production lead over the U.S. has doubled since around 2003.

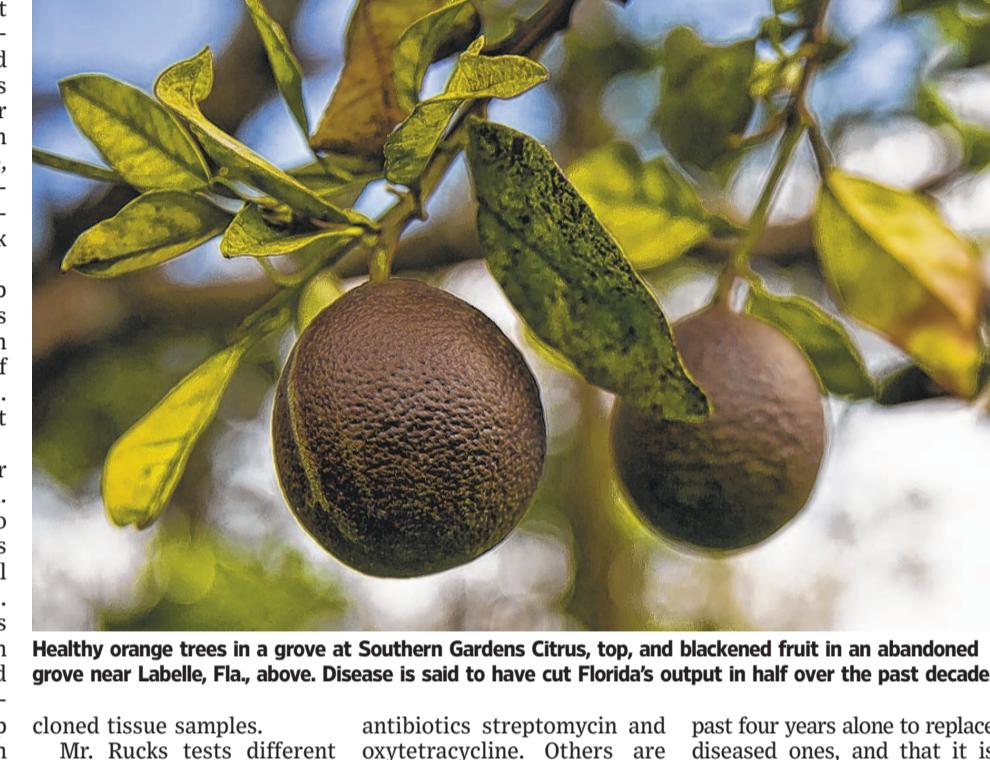
Juice labels that once boasted 100% Florida juice have been altered to read 100% juice. The majority of concentrated orange juice—a product that has much of the water removed to ease shipping and that is later reconstituted—is already imported. This year Florida's domestic production of not-from-concentrate juice, which sells at a higher premium, also won't meet domestic demand, according to bank Rabobank International.

In Frostproof, Fla., Phillip Rucks, owner of Phillip Rucks Citrus Nursery, drove past an emaciated grove in one of Florida's largest citrus areas. It was July and fruit was just starting to develop on trees.

"We call this bad neighbor syndrome," Mr. Rucks said. The grove, abandoned to greening, sat directly across the street from a neighbor still attempting to maintain trees.

Rucks is the largest citrus nursery in the U.S., with 850,000 young budlings and rootstock. The high-tech compound is designed to keep trees quarantined, with growth taking place completely under cover.

Inspectors visit regularly to check for the presence of psyllids. Visitors coming in the building are sprayed down with an antibacterial agent, and the entire compound is surrounded by giant trees designed to block the wind from transporting insects. An unmarked laboratory is filled with a refrigerator full of



Healthy orange trees in a grove at Southern Gardens Citrus, top, and blackened fruit in an abandoned grove near Labelle, Fla., above. Disease is said to have cut Florida's output in half over the past decade.

cloned tissue samples.

Mr. Rucks tests different varieties and different growing methods to find plants resistant to greening. "I'm spoon feeding these trees. This grove is on probiotics," he said, maneuvering his pickup truck between tightly spaced trees in a grove near the nursery compound, the branches packed with green leaves and developing oranges.

He pointed out tanks used for irrigating trees with the

antibiotics streptomycin and oxytetracycline. Others are given molasses, injected into the soil to feed microbes. He calls it his "witch's brew."

"Early on there was hope that the research would lead to a silver bullet," said Adam Putnam, Florida's commissioner of agriculture. "Now the hope is there will be incremental solutions. Expectations are more realistic now."

Brant Schirard, a citrus grower along Florida's eastern belt, said growers are doing everything they can to diversify, with farmers moving into peaches, blueberries, hops and pineapples, among other crops. Approximately 130,000 acres of citrus have been abandoned across the state, according to the USDA.

An added factor is shifting tastes. Americans are drinking 48% less orange juice than they were in 2005, according to Nielsen, as fewer people sit down to breakfast and more people try to avoid sugar, or are tempted by more exotic beverages.

Southern Gardens has been fighting greening since 2005, when the disease first reached its groves, which at that time amounted to 15,000 acres. The company's president, Dan Casper, said that it has planted about 750,000 new trees in the

past four years alone to replace diseased ones, and that it is spending millions on new tree plantings, grove research and citrus greening research.

"I've been working on plant diseases since 1981," said Mike Irey, director of research at Southern Gardens. "It's the most miserable disease I've ever worked with."

The bacteria causing the disease is "fastidious," meaning scientists haven't been able to figure out what nutrients it needs to grow in a petri dish. That makes it nearly impossible to research remedies in a laboratory setting. Each time scientists want to try a new treatment, they need to test it on an actual tree, wait for it to produce fruit, then see if it becomes infected with the disease.

In the past, healthy trees produced fruit for an average of 20 to 30 years or longer. These days they must be replanted, at best, in 12 to 15 years.

"We're putting \$54 in each tree by the time we pick the first fruit off the tree, and that crop won't give you back \$54," said Jim Snively, vice president of groves at the company. "You'll get \$9 back the first year. And then the clock starts ticking."

"Blade Runner," and the brand defied the curse by emerging unscathed.

Is coming back for seconds tempting fate? Dan Sanborn, Diageo's senior vice president for culture and partnerships, laughs. "Of course, as fans we were very aware of it," he says. "Our perspective would be that curses are meant to be broken."

Atari, still making games with a pared-down staff of 18 employees, is back for more, too. It granted the sequel permission to splash its stylized A logo across a skyscraper. Atari plans a comeback around the new film. It is introducing a new game console and "Blade Runner"-themed, Bluetooth-enabled baseball cap that works as a communications device and plays music.

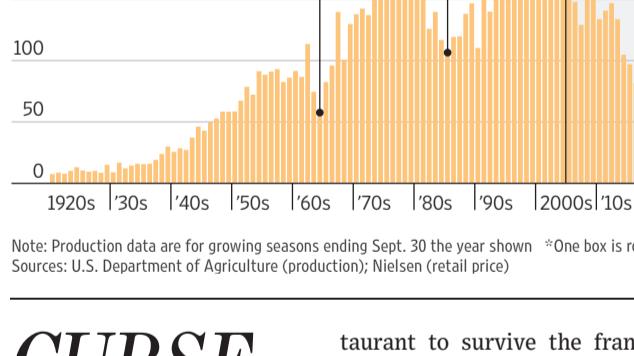
CEO Fred Chesnais likens Atari to the replicant characters in "Blade Runner," androids who yearn to survive beyond their short, preprogrammed lifespans. "We are the replicants," he says. "We are showing that we're still relevant. We're still here, and we will be in 2049."

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## Sour Market

Florida's orange juice industry—decimated by a pernicious disease and recently clobbered by Hurricane Irma—has been suffering, pushing prices higher for consumers and providing an opening for Brazil to become more dominant.

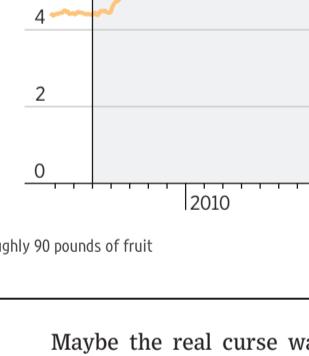
### Florida orange production



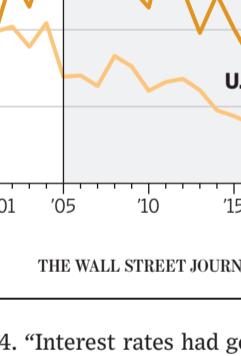
Note: Production data are for growing seasons ending Sept. 30 the year shown. \*One box is roughly 90 pounds of fruit.

Sources: U.S. Department of Agriculture (production); Nielsen (retail price)

### U.S. retail price for orange juice



### Orange juice production



THE WALL STREET JOURNAL.

# CURSE

*Continued from Page One*  
sign element in "Blade Runner 2049," daring a new roster of companies to summon the hubris of showing their brands prospering in the future.

Brands to watch after they appear in the movie: Johnnie Walker whisky, Sony, Peugeot, and Coca-Cola (which survived the first "Blade Runner," despite 1985's New Coke disaster). There is even a Pan Am building in the 2049 Los Angeles skyline.

"I don't feel we're cursed," says Stacy Beck, vice president of brands and licensing at Pan Am, which in 1998 was bought out of bankruptcy by a New Hampshire-based railroad. It continues to license its name to entertainment studios. "But I live in New England. We don't believe in curses here anymore," Ms. Beck says.

Movies about the future have a decent record forecasting which brands will persist. Many companies featured in "2001: A Space Odyssey," released in 1968, survived to the real 2001, including Hilton, IBM and General Motors. In 1993's "Demolition Man," set in 2032, Sandra Bullock informs Sylvester Stallone: "Taco Bell was the only res-

taurant to survive the franchise wars. Now all restaurants are Taco Bell." None of us will know whether Fuddruckers serves meals in 2050, as it does in "Idiocracy," released in 2006.

"Blade Runner" director Ridley Scott had trained in advertising. He also directed Apple's famous "1984" Super Bowl commercial. In the original film, he created an urban dystopia marked by "hyper-prevalence of consumerism," says Andrew Kosove, co-CEO at Alcon Entertainment, which produced "Blade Runner 2049."

At the time, companies like Pan Am, Bell, and Atari seemed like good bets for the future, says Paul Sammon, author of "Future Noir: The Making of Blade Runner," a history of the franchise. (Atari was then owned by Warner Communications, whose Warner Bros. made "Blade Runner.")

Mr. Sammon doesn't dismiss the curse. "I think some films take on a life of their own. Particularly in its first decade, 'Blade Runner' was extremely unlucky," he says. "When it came out, it was a bomb. For a decade, it was under the radar. And I think there was an unlucky aspect to the fact that a lot of those companies weren't able to survive."

Maybe the real curse was simply being flagged as a company of the future in 1982. The 1980s were a decade of deregulation, leveraged buyouts, media consolidation, booming stocks, and sometimes fleeting fortune.

"The '80s was a strange time," says Michael Koss, CEO of headphone maker Koss, which emerged from chapter 11 in 1985. He doesn't hold the movie responsible for his company's need to restructure in

1984. "Interest rates had gotten up to 18% and we had about \$12 million in debt."

Airline deregulation helped doom Pan Am, which struggled to compete with low-cost carriers. Cuisinarts, as it was then called, failed to respond to market changes. "There were money issues, inventory issues," says Mary Rodgers, director of marketing communications for Cuisinart, which Conair Corp. bought out of bankruptcy in 1989 and has

kept alive. "But I don't think there is a curse—and my dad worked for Bell Telephone."

He scoffs at the curse and says it didn't impede product placements. Diageo PLC, which owns Johnnie Walker whisky, has an ambitious advertising campaign around "Blade Runner 2049." It includes Mr. Ford drinking a "Blade Runner" blend of Johnnie Walker Black in the movie that is now available to the public. Mr. Ford sipped Johnnie in the 1982



A year after its Blade Runner cameo, Atari dumped unsold games in a landfill.

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# LIFE & ARTS

WORK & FAMILY | By Sue Shellenbarger

## How to Land a 'Stretch' Job

Good leaders recognize untapped potential and steer employees to new challenges

**SMART LEADERS** have a knack for spotting hidden potential in their employees and suggesting jobs to draw it out.

Pushing people into jobs they don't feel qualified for can be a hard sell. It can be just as difficult, however, for employees to sit back and allow the invisible hand of management chart their careers.

DowDuPont Inc. Chief Financial Officer Howard Ungerleider wants to advance employees who collaborate with colleagues in different departments and look beyond their own jobs toward improving the company's overall results. Several years ago Beth Nicholas stood out when he visited the chemical giant's Shanghai operations, where she was an accounting director, he says. He watched her give presentations and talked shop with her over dinner.

In 2014, Mr. Ungerleider advocated for Ms. Nicholas's promotion to global finance director for Dow's agricultural-products unit, where she would report to him. The unit posted record earnings last year. He recently offered Ms. Nicholas another stretch assignment, to become the company's chief tax officer, effective in January. The job will require especially strong collaboration skills as the company, formed by the merger last month of Dow Chemical Co. and DuPont Co., proceeds with a plan to break up into three companies.

Ms. Nicholas lacks credentials common among corporate tax chiefs—a master's or law degree in taxation. Mr. Ungerleider says DowDuPont has other executives with deep expertise in tax law. What he sees in Ms. Nicholas is the ability to collaborate with them on a company-wide goal of improving global tax strategy.

When Mr. Ungerleider offered her the promotion, Ms. Nicholas says, "it was one of those moments where you pause and the tummy turns a little bit." After taking about a week to think it over, she said yes. "You should feel uncomfortable when you take a new job," she says, "because the opportunity to grow is so vast."

Spotting untapped potential is especially important in advancing women, who tend not to apply for jobs they aren't already highly qualified to do. Executive coach Joel Garfinkle of Oakland, Calif., also sees this tendency in "the introvert who may be intimidated by the extroverts around him or her, the talented but shy person who is afraid of self-promotion, or the person of a different race or culture who has been taught not to put himself forward."

Bosses also need to reassure employees: "I care about you, I'll support you with mentoring and coaching, and there's an exciting



JON KRAUSE

path forward if you take the stretch assignments and succeed," says Suzanne Bates, a Wellesley, Mass., leadership and executive coach whose firm, Bates Communications, has worked with executives at Dow.

"You've got to be kidding me!" was Jennifer Roseman's response when her boss Dan Frank, chief executive of Three Wire Systems, a Falls Church, Va., government contractor, suggested three years ago that she take over financial management of the unit where she was supervising client-service staff. Ms. Roseman trained as a social worker and had no interest in adding profit-and-loss accounting to her role at the unit, VetAdvisor, she says. She reluctantly agreed.

Mr. Frank, a former Navy pilot, says he trusted Ms. Roseman to learn the job and excel at it. "What I saw in her was somebody who

loved the mission" of providing housing, health, career and other support to veterans, he says.

After a few months of managing VetAdvisor's revenue and expenses from her Ebensburg, Pa., office, she realized meeting targets gives

**Spotting untapped potential is especially important in advancing women.**

her a sense of teamwork and pride. She has since been promoted to executive vice president. Looking back, Ms. Roseman says, "Dan had a knack for understanding what I could do—for seeing things in me that I didn't necessarily see."

People who want to work for a leader who nurtures talent should look for executives who spend time with employees and take an interest in them, asking questions and welcoming honest answers, says Jessica Bigazzi Foster, a senior partner at the management-psychology consulting firm RHR International in Chicago.

Motivating many, Ms. Foster says, is a desire to pay it forward. When these leaders tell stories about their own careers, "a consistent theme is that somebody took a chance on them and helped them make a significant leap—without checking all the boxes."

Catherine Zelenofske was thriving as a program manager at WegoWise Inc., a Boston maker of software for building owners, when tech entrepreneur Laila Partridge became the company's chief executive last year. Ms. Partridge noticed how smoothly Ms.

Zelenofske worked with others. During her performance review, the CEO asked, "So, what do you like doing?" Ms. Zelenofske talked about mentoring employees and building customer relationships.

Ms. Zelenofske was surprised when Ms. Partridge offered her a job she'd never considered, as head of "people ops" or human resources. Ms. Partridge explained that she'd still be doing what she enjoyed, but with all 50 of the company's employees rather than a smaller team. She promised to provide mentors, training and guidance. Ms. Zelenofske took the job. In her first nine months, she set up two programs for employees, one to improve the performance-review process and another to help them with career planning.

"She was a good performer on her previous job," Ms. Partridge says, "but on this one she's a rock star."

MY RIDE | By A.J. Baime

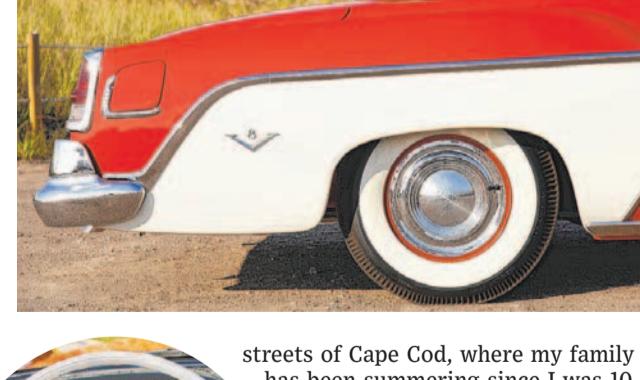
## THE SPIRIT OF '55 IN A RESTORED DESOTO

*Scott McQueen, 71, a retired owner of radio stations from Boca Raton, Fla., on his 1955 DeSoto Fireflite, as told to A.J. Baime.*

You could call me the king of nostalgia. I spent much of my career running oldies radio stations, celebrating the music of my youth. And later in life, I put together a collection of cars that reflect my early years of driving.

When I was in college at Dartmouth, I sold everything I owned to buy a 1965 Corvette. Now I own one of those, in the same color: Nassau blue. In my senior year of college, I bought a 1965 Pontiac Catalina. Now I own one of those. When I first saw some success in radio, I got a 1976 Designer Series Bill Blass Lincoln Continental Mark IV. It was pretty over the top, but that's what I wanted at the time. Now I own one of those.

The most important car to me is the 1955 DeSoto. I got my driver's license in 1963, and the first car I drove was a friend's 1955 DeSoto Fireflite, in red and white, on the



streets of Cape Cod, where my family has been summering since I was 10. It was the perfect beach car, and those were life-defining memories.

In the late 1980s, I went looking for a Fireflite, and found one in the exact color scheme in South Dakota. I bought it for \$14,000, and I have always kept it at our house in Cape Cod. Every summer, one of the first things I would do when I got up here was figure out how to get that car running.

A few years ago, I realized that this car had become pretty valuable. DeSoto was a division of Chrysler up until model year 1961. The Fireflite was the flagship DeSoto, and a brand new model for 1955. Only 775 convertibles were made. I asked a friend—Corvette specialist Ronald Garrett of Fort



**The 1955 DeSoto Fireflite belonging to Scott McQueen in Cape Cod, Mass. The car's back end, above left, includes a V-8 logo. A view of the steering wheel, left.**

Wayne, Ind.—to restore my DeSoto and its original 291 V-8. He agreed, however long it would take. It took three years, and I got the car back this July.

Now it drives like a brand new 1955 DeSoto. Motoring around this summer, all of my

passions came together: the streets and beaches of Cape Cod, the first car I ever drove, and of course, oldies on the radio.

Contact A.J. Baime at [Facebook.com/ajbaime](http://Facebook.com/ajbaime).

## OPINION

### REVIEW & OUTLOOK

#### Cuba's Sonic Attacks

**U**.S. Secretary of State Rex Tillerson told CBS's "Face the Nation" recently that the U.S. is thinking about closing its Embassy in Havana in response to mysterious acoustic attacks on U.S. personnel that have injured at least 21 Americans.

Here's a better idea: Keep the Embassy in Havana open but expel from the U.S. 19 Cubans working at its embassy in Washington. Since the U.S. already expelled two Cuban diplomats in August in response to the attacks, the new round of expulsions would bring the number of Castro personnel asked to leave to the same number of U.S. personnel that have been medically confirmed to have suffered injuries.

The U.S. can tell Cuba that things will return to normal when Raúl Castro explains to the U.S. State Department how the Embassy employees were harmed. As of now, all we know is that the State Department believes some sort of sonic harassment has left them with "a variety of physical symptoms."

That's an understatement. The American Foreign Service Association, a union for U.S. diplomats, said earlier this month that it has spoken with 10 of the affected and that "diagnoses include mild traumatic brain injury and permanent hearing loss, with such additional symptoms as loss of balance, severe headaches, cognitive disruption and brain swelling."

Mr. Castro says he is shocked to hear this news and claims he has no idea how it could have happened. That would be easier to believe if Cuba weren't a police state with a long record of harassing U.S. government employees on the island.

According to retired ambassador James Cason, who ran the U.S. Interests Section in Havana from 2002 to 2005, leaving feces on a din-

#### How to respond to the harm done to 21 Americans in Havana.

ing-room table or a car door-handle and poisoning pets are a few ways that Castro's boys have shown hospitality toward Americans over the years. Embassy personnel engaged on human-rights issues and with dissidents were among the most likely targets because the regime wanted to send a message, Mr. Cason told us.

The sonic attacks are different because the Americans didn't know they were being harmed until after the fact. One theory is that one of Cuba's allies, such as North Korea or Iran, decided to test a new assault device from its embassy on the island. Another theory is that a rogue wing of the regime wants to undermine the U.S. rapprochement. But a regime that specializes in spying on its own people isn't often surprised by local developments. As Mr. Cason puts it, "nothing happens [in Cuba] without the government knowing about it."

On the odd chance that the attacks aren't regime-approved, a one-party state that learned from the Soviets certainly has the power to investigate. Yet these incidents began in November, the U.S. first complained in February and as recently as August they continued. Notwithstanding Mr. Castro's bafflement, his government has done nothing about the attacks. Perhaps Raúl figured he could simply get away with it after he won normal relations with the U.S. without making any concessions.

Mr. Tillerson said "it's a very serious issue with respect to the harm that certain individuals have suffered." Expelling Cuban embassy personnel will anger Cuba because it will weaken its espionage ability here. But the U.S. has a responsibility to protect its diplomats and a failure to respond will encourage other regimes to do the same.

#### An American Comeback Story

**A**s Washington begins to debate tax reform in earnest, states can provide instructive policy lessons for better and sometimes worse—see the fiscal crack-ups in Connecticut and Illinois. Michigan, on the other hand, offers a case study in the pro-growth potential of business tax reform.

Former Michigan Democratic Gov. Jennifer Granholm was a progressive specialist in using the tax code to politically allocate capital, which depressed and distorted business investment. Between 2002 and 2007, Michigan was the only state to experience zero economic growth.

Ms. Granholm's Republican successor, Rick Snyder, recharged growth with tax and regulatory reforms. While Michigan's GDP has been expanding at roughly the national average since 2011, it has led the Great Lakes region.

Michigan slipped into recession in 2003 as manufacturing contracted, which unions blamed on China and free-trade agreements. But misguided policies were arguably bigger contributors to Michigan's slump. Between 2002 and 2007, Michigan's manufacturing grew at a third of the rate of the Great Lakes region. During this period, motor-vehicle and parts manufacturing in Indiana increased five times as much as in Michigan. And Indiana's economy is nearly as dependent on vehicle production as Michigan's.

Democrats in Lansing responded by raising taxes with dispensations for politically favored constituents. In 2007 Democrats increased the state income tax to 4.35% from 3.9%. They also enacted a new business tax with a 4.95% tax on income, a 0.8% gross-receipts tax, plus a 21.99% surcharge on business tax liability.

The three-layered business tax replaced a value-added tax, but retained its flaws—namely, its pyramid structure and myriad carve-outs. New credits were created for Nascar, car dealers, film-production companies, large food retailers and warehouses. Businesses could even pocket \$100,000 for contributing to zoos. Care to sponsor a giraffe?

None of the tax gimmicks revived growth, and Michigan's economy plunged amid the national recession with unemployment hitting 14.9% in June 2009. The auto bailout helped stanch job losses at GM and Chrysler while pension reforms and a two-tier wage scale for new workers made Detroit's auto makers more economically competitive.

By 2011 when Mr. Snyder assumed office, auto manufacturing had rebounded, but other industries remained limp. Michigan still hadn't posted annual net job growth since 2005. Its 10.9% unemployment rate was the fourth highest after California, Nevada and Rhode Island.

Mr. Snyder's first major undertaking with his Republican legislature was to replace the cumbersome state business tax with a 6% corporate tax and trim the individual rate to 4.25%. Michigan's corporate-tax ranking jumped to seventh

#### How business-tax reform helped revive Michigan's economy.

from 49th in the Tax Foundation's business tax climate rankings.

Republicans financed the tax cuts by eliminating most business handouts along with individual income-tax preferences for public pensions and jobless benefits. Credits for children, automobile donations, city income taxes, college tuition and charitable contributions were axed. They also reformed state-worker pensions.

After the 2012 midterm elections, Republicans passed right-to-work legislation that lets workers choose whether to join unions. In 2014 state voters approved a ballot measure backed by the governor to repeal the personal-property tax for small businesses and manufacturers, which was levied on the value of machines and other tangible equipment.

Capital investment and hiring have increased sharply. Two months after Mr. Snyder signed the tax reforms, job growth turned positive. In 2011 Michigan added jobs for the first time in six years, and it has since led the Great Lakes region in manufacturing growth.

Unemployment has fallen below the national average to 3.9% even as the labor-force participation rate has ticked up. The jobless rate is still 5% in Illinois and 5.4% in Ohio, and labor-force participation has declined in both states. Ohio and Illinois are non-right-to-work states with larger individual and business tax burdens. Ohio imposes a gross-receipts tax.

Liberals may want to credit the auto bailout, but auto manufacturing isn't driving Michigan's growth. Between 2011 and 2015 (the last year with available disaggregated data), Michigan's motor-vehicle and parts production increased by 2.3%—half as much as in Indiana and the U.S. During the first quarter of this year, when car sales stalled, overall manufacturing in Michigan still grew by a healthy 7.4%. The Mackinac Center notes that fabricated metals and machinery are doing particularly well, but growth has been broad-based. Since 2011, professional and business services have expanded at an annual 3.6% and IT by 2.7%.

Downtown Detroit is drawing tech firms and young entrepreneurs. Unemployment in the Detroit metro area has fallen to 3.2% from 11.4% six years ago. Businesses in Ann Arbor and Grand Rapids say they can't find enough workers. Perhaps they should try recruiting in Chicago or New Haven.

The left loves to flog the political revolt against Kansas Gov. Sam Brownback's tax cuts, which they blame for yawning deficits. But the bigger deficit drivers were court-mandated increases in school spending and a slump in farm commodity prices. Republicans also erred by retaining major tax breaks and repealing the income tax for small businesses, which caused some individuals to change their filing status. Caveat, Senators.

While progressives may continue to deny that taxes matter, Michigan's economic comeback shows otherwise.

#### Comparative Midwest Economics

Real average annual GDP growth in percent in the six years before the 2008-2009 recession and six years after a post-recession tax reform

All Industries	2002-2007	2011-2016
U.S.	2.7%	2.0%
Michigan	0.0	1.9
Great Lakes*	1.3	1.4
Illinois	1.8	1.0
Manufacturing	2002-2007	2011-2016
U.S.	4.4%	0.9%
Michigan	0.8	2.1
Great Lakes*	2.4	0.8
Illinois	2.7	-0.4

\*Illinois, Indiana, Ohio, Michigan, Wisconsin

Source: Bureau of Economic Analysis

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## Meet the Party Germany Just Put in Parliament



"Nazi" is the foulest word in the German language. It shouts horror, depravity, war. Other countries have started to find ways to joke about it over the past generation, as with the Soup Nazi character who tyrannized lunch customers on the 1990s

American television comedy "Seinfeld." Not the Germans, for whom the wretched memory of the 1930s and '40s still stokes fears about the true national character.

But the N-word is now spoken out loud, a warning flare concerning the Alternative for Germany (AfD) party's entry into the Bundestag in Sunday's national election. That the party is now the third-largest group in parliament dims the beacon of global leadership Chancellor Angela Merkel once claimed Germany held up for the world. The beacon already was flickering after financial trickery at Deutsche Bank and environmental scandals at Volkswagen.

The AfD leadership calls for pride in the "achievements" of German soldiers in two world wars and an official end to forced German historical "shame"; it says Islam has no place in the country, and that the Quran inspires terrorism; and it has found room for candidates who have been blatantly anti-Semitic or seek an end to Europe's ethnic diversification. Add anti-NATO, anti-American, anti-European Union and pro-Russian views.

Yet they come in an almost-respectable-seeming package, which may be why the Interior Ministry in a country that otherwise bans hate groups has called the AfD merely "right-wing populist."

Others are tougher. "For the first time since the Reichstag in 1945," Foreign Minister Sigmar Gabriel, a Social Democrat, said recently, "real Nazis will be standing at the speakers' podium" in the parliament.

A one-word answer came from Ton Nijhuis, a professor at the University of Amsterdam and a member of the Netherlands' German Institute, when he was asked Sunday night on Dutch television whether Nazis were being elected in Germany: "Yes."

For Heinrich August Winkler, the historian whose books are the standard work in Germany on its postwar integration into Western democracy, the rise of the AfD has a miserably familiar look. In an interview on Sunday with Die Welt, he said:

"The AfD embodies such a mass of right-wing radical/reactive tendencies that can be seen as parallels to the German nationalists who, in opposing the Weimar Republic before 1933, prepared the way for the National Socialists," the official name of the Nazi party.

Alexander Gauland, who led the AfD ticket, denies any such link. But after more than 50 years keeping right-wing

extremism out of a central political role, the party's result is a historical breakthrough. It could turn out to be a blow to Germany's stability, and another blow to the self-confidence of the West.

Who's to blame? Jakob Augstein, a columnist for Der Spiegel and son of the magazine's founder, has written, "Angela Merkel is the mother of the monster. It was on her watch that the Nazis came into the Bundestag."

He's not wrong. Once described in another context by the Frankfurter Allgemeine Zeitung as behaving more like the United Nations secretary-general than the chancellor, Mrs. Merkel refused to fight the AfD head-on during the election, choosing to sell her everything's-great-in-Germany routine instead.

#### Alternative for Germany plays to the worst impulses of the country's history, and Angela Merkel let them win.

Certain to retain her chancellorship in a new government, she will continue to steer clear of a confrontation, saying she wants to win back AfD voters (many of whom are enraged about her opening Germany's frontiers to a million Muslim refugees) through "good politics."

Fat chance. This is the noncombatant Mrs. Merkel who also says that there is no military solution to crises in Crimea, Syria and eastern Ukraine. Tell that to Russia.

Mr. Winkler, the historian, bemoans what he calls, as if it were disappearing, "the old Federal Republic" of the West. And the new one?

Fourteen months ago, when the AfD was scoring about 11% in the polls (they won just under 13% Sunday), I asked Jörg Meuthen, its co-leader, if the party thought it might have to press closer to extremism to win more votes in 2017. His reply: "We'd lose more votes out of the middle. Thank God it's like that in Germany."

This year he appeared on the AfD campaign trail alongside Martin Hohmann, an apparent winner of a seat Sunday, whom Mrs. Merkel threw out of the Christian Democratic Party in 2003 when he said that Jews tried to label Germans "a people of perpetrators" while they were that themselves.

And this from the Frankfurter Allgemeine Zeitung on a restaurant-bar gathering in Görlitz Saturday night. It included Jens Maier, another apparent AfD winner, who has talked about the current "manufacture of half-breeds" in Europe. Someone asked how many people were at a Maier rally earlier.

"Eighty-eight would be good," came the answer from the crowd. The newspaper explained that 88 was code among the radical right for "Heil Hitler."

Hilarity ensued, according to the report.

## A Nafta Exit Would Be a Rotten Deal

By Thomas J. Donohue

**I**magine the scene a year from now: The U.S. unemployment rate is climbing. Crops in the heartland are rotting. Consumer prices are rising. Manufacturers are moving abroad.

This vision isn't so far-fetched when you consider the increasingly precarious state of play in the effort to modernize the North American Free Trade Agreement.

Nafta supports millions of American jobs, and with thoughtful updates it could create millions more. Renegotiations with Canada and Mexico launched in August, but the White House continues hinting it may withdraw the U.S. from the trade agreement altogether. These threats must be taken seriously. Quitting Nafta would be an economic, political and national-security disaster.

How might the calamity unfold? Say the Trump administration pushes ideas that are opposed vociferously by the U.S. business and agriculture communities, as well as by the Canadian and Mexican governments. Such proposals might be to end the agreement's investment protections, add strict rules on domestic content or impose a five-year sunset clause.

Those proposals would all but guarantee that negotiations break down—in which case, American officials insist, they will start to pull the U.S. out of the existing deal. That is within the White House's authority: Any of the three Nafta parties may withdraw from the agreement at six months' notice, which the president is empowered to provide.

Mexico would respond immediately, perhaps starting with its applied most-favored-nations tariff on grains, which ranges from 15% to 20%. That's the hefty duty now levied on corn, wheat and other products from countries such as Argentina and Brazil. In contrast, Nafta allows American farmers to sell crops to Mexico duty-free.

If Mexico slashed the external tariff to zero, it would be able to substitute billions of dollars in South American products for U.S. ones. Even if food from the U.S. remained slightly cheaper,

years' worth of harsh rhetoric has left Mexicans furious and willing to pay more to send a message.

That's only one example of the broad and powerful effect pulling out of Nafta would have. Fourteen million American jobs depend on trade with Canada and Mexico, which are by far the U.S.'s largest export markets. The two countries buy more than \$600 billion in U.S.-manufactured goods each year, more than the next 10 largest markets combined.

Thanks to Nafta, virtually all North American trade is tariff-free. After withdrawing from the deal, tariffs on all products would snap back to an average of 3.5% for the U.S., 4.2% for Canada and 7.5% for Mexico—a terrible deal for all three countries.

The increased tariffs would hit American consumers and exporters in the pocketbook, but the losses would accumulate well before that. Supply chains would shift away from the U.S., as Canada and Mexico looked to their other free-trade partners, in Europe and Asia, for manufactured goods and food.

Hundreds of thousands of American jobs would be lost, and that's a conservative estimate. Heartland states that voted for President Trump would be hurt most, and angry voters would know exactly whom to blame.

Beyond the trade retaliation and economic fallout, cooperation between the U.S. and Mexico in other areas would fall off. Today the two countries work closely on antiterror and antinarcotics efforts, and Mexico helps limit Central American migration northward. These efforts would end overnight.

You'd think that threats to withdraw from Nafta—or proposals that inevitably would kill the deal—should be off the table. But they aren't. So here's an unequivocal warning: Undermining Nafta would be a grave and costly mistake that would hurt the very farmers, manufacturers, workers and families this White House purports to protect. Americans should do everything necessary to avert this grievous self-inflicted wound.

Mr. Donohue is president and CEO of the U.S. Chamber of Commerce.

## OPINION

# How Trump Can Improve the Iran Deal

By **Mark Dubowitz**  
And **David Albright**

**P**owerful voices at home and abroad are pressuring President Trump to give his blessing to his predecessor's nuclear agreement with Iran. Mr. Trump has repeatedly pledged to renegotiate the deal, known as the Joint Comprehensive Plan of Action, or scrap it altogether. There is a way for him to highlight the agreement's egregious deficiencies while showing his determination to improve the deal or leave it. We call this strategy "decertify, waive, slap and fix."

**H**e can call out Tehran for its noncompliance as a prelude to renegotiating the accord's worst aspects.

The president should follow through on his commitments by refusing to certify the JCPOA under the 2015 Iran Nuclear Agreement Review Act. That law requires Mr. Trump to certify every 90 days that Iran is fully implementing the nuclear deal and hasn't significantly advanced its nuclear-weapons program. Additionally he must certify whether the suspension of sanctions remains vital to U.S. national-security interests and proportionate to Iran's efforts to terminate its illicit nuclear programs. The next 90-day deadline is Oct. 15.

If the president continues to certify the JCPOA, inertia and the status quo will probably capture him the way a policy of "strategic patience" on North Korea got Mr.

Obama. This will effectively guarantee the clerical regime pathways to missile-delivered nuclear weapons.

The JCPOA is a prelude to a Middle Eastern version of the North Korean mess. It gives the clerical regime sunset-expiring restrictions, advanced centrifuges, intercontinental ballistic missiles, the ability to frustrate U.N. inspectors' access to military sites where Tehran has conducted secret nuclear-weapons and uranium-enrichment work in the past, and tens of billions of dollars in sanctions relief, with hundreds of billions to follow. The Iranians will continue to run amok in the Middle East, using foreign cash to pay for their imperialism.

The president should refuse to certify for another reason: The nuclear deal's fundamentally flawed architecture—not just how it is enforced—makes it too dangerous to continue. By patiently following the deal the Islamic Republic can gain nuclear weapons, as well as a nuclear-capable arsenal of missiles giving it regional hegemony and the ability to threaten the U.S. It also will have a powerful economy immunized against sanctions pressure by the time the JCPOA restrictions expire. Allowing this isn't in the "vital national security interests of the United States."

Decertifying doesn't mean breaking the deal. That happens only if the U.S. reimposes sanctions that have been lifted or suspended under the JCPOA. On Sept. 14, as required by the JCPOA, the president again waived nuclear-related sanctions, this time on Iran's central bank and oil exports. He accompanied this "waive" with a "slap" imposing new sanctions on companies and individuals connected to Iran's ballistic missile program and re-



ATTA KHAN/EPA/GETTY IMAGES

Ballistic missiles next to a portrait of Iran's supreme leader in Tehran, Sept. 25.

cent cyberattacks. An engineering company working with Iran's Islamic Revolutionary Guard Corps was also targeted.

These sanctions, which are fully compliant with the JCPOA, are a decent start. But Mr. Trump must do more. He should designate the Revolutionary Guards a terrorist organization, as Congress has required he do by Oct. 31. He should also instruct U.S. Treasury to black-list companies with Revolutionary Guard and military ownership, which represent about 20% of the total market capitalization of the Tehran Stock Exchange. He should redesignate Iran Air (which is buying planes from Boeing and Airbus) as a terrorist entity for airlifting weapons and fighters to Syria. All these measures are consistent with the JCPOA.

We propose the president "fix" U.S. policy by making it clear he doesn't accept the Iran deal's dangerous flaws. He should insist on conditions making permanent the current restrictions on Iran's nuclear program and the testing of advanced centrifuges and nuclear-capable ballistic missiles, as well as the buying and transferring of conventional weaponry. He must insist on unfettered access for U.N. weapons inspectors to Iranian military sites.

Congress should do its part to help fix the deal. Reinstating the JCPOA sanctions after decertification would ruin the "decertify, waive, slap and fix" approach. To persuade Republicans, who are the most likely to vote to reinstate JCPOA sanctions that have been waived or lifted, the administration needs to demonstrate a comprehensive strategy to fix the deal and use all instruments of American power to neutralize and roll back Iranian aggression. Democrats should help fix the deal or explain to Americans

why a brutally repressive and aggressive Iranian regime should have a North Korean-style glide path to dozens of nuclear weapons and ICBMs.

The Europeans are already responding to Mr. Trump's threats to walk away from the deal. French President Emmanuel Macron has said he's willing to consider supplementing the agreement to address the sunset provisions and missiles. European leaders who want to preserve the accord are now working on a U.S.-EU consensus on ways to fix it. They should outline conditions under which trans-Atlantic sanctions would be reinstated if Iran doesn't play ball. Otherwise, they can watch Mr. Trump exit the deal and use the considerable financial power of the U.S. to force European banks and companies to choose between America's \$19 trillion market and Iran's \$400 billion one.

Decertification is the critical first step of a strategy to prevent the Islamic Republic of Iran from becoming a nuclear state. The famously blunt Mr. Trump must send an unambiguous message to Tehran's clerics: His administration will not tolerate a nuclear Iran, nor can it abide by the agreement as it stands.

But the strategy doesn't depend on Iranian acquiescence. It gives the Europeans a chance to come on board to fix the deal in order to save it.

If they don't, the consequences could be severe.

**M**r. Dubowitz is chief executive of the Foundation for Defense of Democracies. Mr. Albright is president of the Institute for Science and International Security.

## Lessons From the Eurozone's Growing Success

By **Michael Heise**

**O**nly a few years ago the eurozone seemed doomed to long-term stagnation and recurrent turmoil. Its politicians had let the crisis go to waste, critics claimed. Riven by internal imbalances, they added, the euro would ultimately be unsustainable unless its governance was fundamentally reformed, most notably by adding a joint fiscal policy.

Yet average gross domestic product growth in the eurozone slightly outpaced the U.S. in 2016 and will maintain the same speed of about 2% in 2017. More people in the eurozone have jobs today than during the previous peak in 2008. The recovery has reached all eurozone countries, including Greece, with the momentum mirrored in the foreign-exchange markets, where the euro has made significant gains. On the stock markets, European companies are suddenly all the rage.

These developments are at odds with many critics' predictions. The euro's periphery would remain mired in stagnation, they said, since only an "internal devaluation" through lower wages and prices could enable crisis countries

to regain competitiveness and growth. But this couldn't be achieved because economic structures were too rigid, labor unions too strong and societies rife with unrest, the pessimistic view went. The eurozone would prove simply too diverse to survive.

Instead, adjustments happened. Not everywhere, not completely, but adjustments nonetheless. Unit labor costs in former troubled countries such as Ireland, Portugal and Spain are lower now than in 2008, while in Germany these costs have grown several times faster than the eurozone average. Eurozone countries that were once vulnerable because of their gaping external deficits have managed to close them.

Fiscal deficits have shrunk, with seven euro members achieving balanced or surplus budgets. Many countries have reformed their labor markets and social-security systems. Nonwage labor costs have fallen and employment has rebounded. Households and businesses have worked through parts of the debt they had amassed before the crisis.

The lackluster growth of the posterisis years was virtually inevitable due to the large consolidation

and adjustment needs that had accumulated in the years of the boom. It was not the euro but misguided national policies that had let the big imbalances arise. People suffered most in those countries where fiscal policies had been con-

### The common currency is teaching politicians and economists how economies really recover from stress.

sistently lax, private debt and current account deficits had exploded and wage growth had outstripped productivity gains.

Bearing this in mind, euro member countries after the crisis rewrote the eurozone's rules for fiscal sustainability and added new rules for macroeconomic stability. Adhering to such rules would above all be in a country's own interest. But the eurozone can undertake further steps to strengthen their motivation.

The monitoring of national economic policies, as carried out by the Eurogroup of national finance ministers and the European Commiss-

ion, remains overpoliticized, undermining its legitimacy. A completely apolitical surveillance and enforcement of eurozone rules may be unachievable, but independent experts could be given a greater say in things, perhaps by transferring monitoring and assessment duties to the European Stability Mechanism.

More effective still would be the addition of a mechanism for the eurozone to handle sovereign insolvencies. This would make it clear to profligate governments that they ultimately risk sovereign default, with painful consequences to the holders of sovereign debt, many of whom are also ultimately voters.

Fearing a loss of value, international investors, too, would pay more attention to the sustainability of national economic policies when adding eurozone bonds to their portfolios. Rising risk premiums would then be a clear signal to politicians that their economic policies should be more solid. Strip away the implicit assumption that other eurozone countries will always step in with a bailout, and market pricing could accomplish what complicated rules and ineffective sanctions have so far failed to achieve.

Such changes in the governance of the eurozone should come before any further fiscal centralization through new joint budgets and large-scale transfers between countries. As long as several euro countries remain unwilling to cede national autonomy in fiscal and social policies, or even call the rules-based constraints of the Stability and Growth pact into question, doubts about their commitment to responsible policy making will persist. That makes it too risky to mutualize the burdens of persistent unemployment or macroeconomic imbalances.

The eurozone has surprised its critics by proving itself capable of adjustment. But adjustment in a crisis is usually painful. For the eurozone to be successful and prosperous, member countries must prevent the emergence of destabilizing fiscal and macroeconomic imbalances in the first place. This is the prerequisite for a fiscal union that goes beyond common support for investment in infrastructure or existing crisis-management provisions.

**M**r. Heise is the chief economist of Allianz SE in Munich.

## America's Minimum-Wage Crowd Tries a Bait and Switch

By **David Neumark**

**D**oes the minimum wage destroy jobs? The debate over that question often reduces to dueling economic studies. One side cites analyses showing that employers respond to a wage floor by cutting hours or jobs. The other side pulls out studies saying the minimum wage is a free lunch for workers. To really understand what's going on, you need to get under the hood.

The main challenge in estimating the effects of a rising minimum wage is identifying a good control group. Generally economists want to find a set of workers who weren't subject to the policy change, but

who otherwise experienced similar economic trends. Still, that leaves a lot of leeway for choice.

Researchers who support raising the minimum wage often advocate a "close comparison"—using an area geographically nearby. The classic in this genre is the 1994 study of the fast-food industry by David Card and Alan Krueger. The minimum wage had been raised in New Jersey to \$5.05 from \$4.25, but had stayed flat in Pennsylvania. The two economists surveyed fast-food restaurants on either side of the state border and actually found sharp job gains in New Jersey.

I'm on record, in a 2000 paper, as arguing that the Card-Krueger study was based on flawed data. But

other researchers using the "close comparison" method, such as Michael Reich at Berkeley, also have generally found that a higher minimum wage doesn't cause job losses. Those studies have fed into rosy policy reports saying that a \$15 minimum wage would help workers with little downside.

Critics say these studies don't convincingly control for shocks to the low-skill labor market. Moreover, comparing across state borders is inherently difficult. Perhaps politicians in one state felt comfortable raising the minimum wage because the labor market there was already strong, while the other state was struggling. In that case, job losses from the higher minimum wage could be masked by the broader trend.

Alternative research strategies do show job losses. Consider a 2014 study by Jeffrey Clemens and Michael Witten on what happened when the federal minimum wage was raised to \$7.25 from \$5.15 in the late 2000s. Rather than crossing a border, they compared groups of workers within each of the affected states. The first group included those who were paid the very lowest wage, on whom the new minimum was "binding." The control group included workers earning slightly above the minimum. The study estimated that the new federal minimum had eliminated about 800,000 jobs.

The dispute over methodology explains the importance of this summer's research on Seattle's minimum-wage experiment. The city's wage floor, previously about \$9.50 an hour, has been raised to

\$13 and is on its way to \$15. A comprehensive study by academics at the University of Washington estimated that the higher minimum "reduced hours worked in low-wage jobs by around 9 percent." Consequently, earnings for these employees dropped "by an average of \$125 per month."

### A recent study used an approach favored by boosters—but still showed negative effects for workers.

What's especially inconvenient for minimum-wage proponents is that the Seattle study used a "close comparison" method similar to the one they have favored for years. The authors of the study compared workers in Seattle with those in other metropolitan areas in Washington, such as Olympia, Spokane and Tacoma.

To no one's surprise, that hasn't stopped minimum-wage supporters from attacking the Seattle research. In a June letter to city officials, Mr. Reich, the Berkeley professor, wrote that the study "draws only from areas in Washington State that do not at all resemble Seattle."

But this gives away the game: Any researchers doing this kind of study should explicitly choose control areas that show similar trends, as did the University of Washington team. More to the point, if the controls for Seattle can't be trusted, it undermines the whole idea of "close comparison." Criticizing the method

only when it delivers evidence against minimum wages suggests the motivations here may be ideological rather than empirical.

The Seattle study won't settle the debate—nor should it. It is one analysis, and it examines one city's experience over a short period. In my view, more of the evidence, and the best evidence, points to job losses from higher minimum wages. But additional research will refine the academic consensus. The trouble is that the debate will suffer if researchers use their influence to attack results they don't like, as seems to be happening with the Seattle study.

There is also a more general lesson for the public. Although politicians and the media are right to rely on research to understand the effects of public policy, it's important to keep a skeptical eye. Research often comes from a mix of sources, and it can be difficult for those reporting on it to separate the wheat from the chaff. Perhaps it's even unreasonable to expect them to do so.

This problem of research-as-advocacy isn't confined to one side. There is plenty of it on the right and the left. Yet it would be wrong, too, to think that any study from an organization with a point of view is flawed or biased. The trick is trying to understand not only what the research says about public policy, but also who the messenger is.

**M**r. Neumark is a professor of economics and director of the Economic Self-Sufficiency Policy Research Institute at the University of California, Irvine.

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## LIFE & ARTS

### BURNING QUESTION

# What's the Best Cure for Brain Freeze?

BY HEIDI MITCHELL

**WHAT IS** an ice cream headache, or brain freeze?

It starts with an innocent spoonful of ice cream—and ends with feeling like an ice pick is stabbing the brain. Though quick to arrive and quick to flee, the so-called ice cream headache can be a painful side effect of an otherwise joyful indulgence. One expert, Amaal Starling, assistant professor of Neurology at Mayo Clinic in Scottsdale, Ariz., explains its causes and cures such as drinking with a small straw.

#### A Cold-Stimulus Headache

Sufferers have given the fleeting condition many names, but the technical term for an ice cream headache is a cold-stimulus.

Dr. Starling, a headache expert, explains that when very cold food touches the palate, the blood vessels rapidly constrict, then rapidly dilate. Pain receptors in the walls of those blood vessels tell the trigeminal nerve that something wild is happening, and the brain "reads" that message as head pain.

"Your body likes stability, and when something changes quickly, it sends off signals to the brain that something might be wrong," says Dr. Starling. About one-third of people experience the brain freeze when they quickly consume cold foods like ice cream or milkshakes, she says. The neurologist has seen case reports where brain freezes were even caused by in-

haling cold air such as during ice skating.

#### Referred Pain

A physiological phenomena called referred pain explains why the brain perceives aching in the temples or forehead rather than the mouth. Nerves from the head, face, neck and mouth converge onto the brainstem in an area called the trigeminal cervical complex, or the TCC. The TCC is most frequently activated from head pain, so when it's "turned on" by the mouth, it can sometimes translate into a

headache, says Dr. Starling. "That referred pain is similar to how people describe having a heart attack: that they feel pain in their left arm, not necessarily in their heart," Dr. Starling says.

The good news is that once the blood vessels dilate back to normal size, the piercing pain in the brain goes away, typically within a few seconds, but no longer than a minute or two. "These cold-stimulus headaches are benign," Dr. Starling adds.

#### Ask a Child

A randomized trial was conducted in 2002 to study this strange phenomenon. Researchers in Hamilton, Ontario, Canada asked 145 middle-school students to participate and all agreed. Half were told to eat half of 100 ml of ice cream in more than 30 seconds, then finish at their own pace. The other group was instructed to eat all 100 ml in less than 5 seconds.

In the study, 27% of children in the accelerated-eating group developed an ice cream headache compared with only 13% in the "cautious" group. Nearly 60% of

the headaches lasted less than 10 seconds. About 79% of the children said they had had at least one headache from eating ice cream at some point in their lives. Sometimes you get one, sometimes you don't, but the majority of people have had at least one cold-stimulus headache in their lifetime," Dr. Starling says.

Several studies suggest that people who suffer from migraines might be more prone to getting ice cream headaches. "I could hypothesize that they are more sensitive to environmental triggers so it could be that they have a decreased threshold for painful stimulus overall," she says.

#### Prevention and Cures

Prevention is the best way to combat ice cream headaches, says Dr. Starling. Eat slowly. Choose a narrower straw for drinking a slushie.

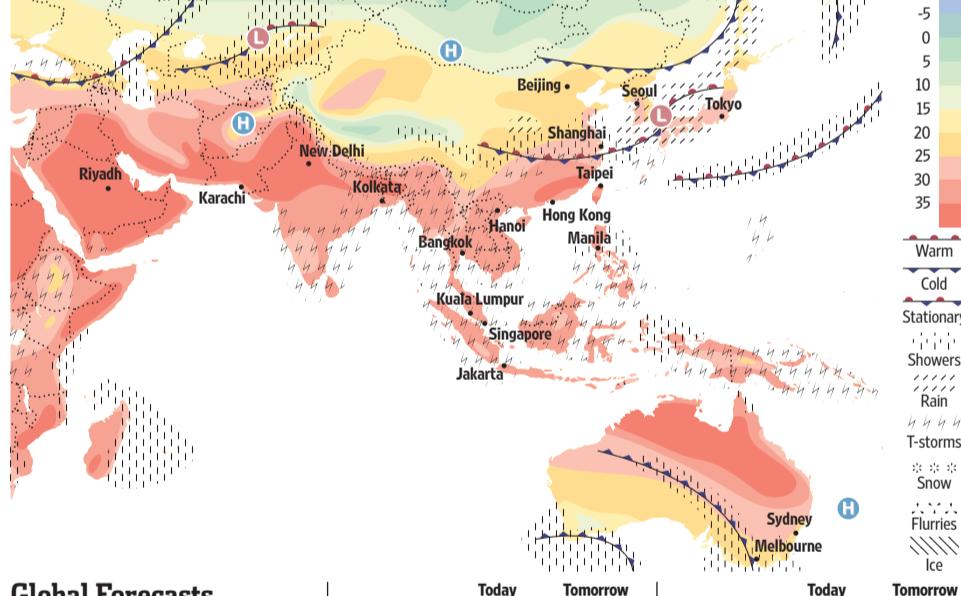
"Since the posterior palate is the most sensitive part of the mouth, position the straw so it's not projecting the cold sip to the back of your mouth," she adds, though her strategy has not been clinically tested.

If you get a headache from a chocolate cone, depress your tongue or a clean thumb to the roof of your mouth, or have a sip of warm water. "If you can stabilize the temperature and prevent the rapid constriction and dilation that might shorten the ice cream headache," the neurologist says. "Life is all about enjoying the small things, so eat slower, but still enjoy your ice cream."

ZOHAR LAZAR  
*Email questions to [burning@wsj.com](mailto:burning@wsj.com)*



#### Weather



#### Global Forecasts

s...sunny; pc...partly cloudy; c...cloudy; sh...showers;

t...tstorms; r...rain; sf...snow flurries; sn...snow; l...ice

Today Hi Lo W Tomorrow Hi Lo W

Amsterdam 20 12 pc 19 12 pc

Anchorage 12 8 r 13 8 r

Athens 26 19 t 23 19 pc

Atlanta 32 21 s 32 20 s

Baghdad 41 23 s 23 23 s

Baltimore 31 21 pc 27 13 pc

Bangkok 33 26 t 33 25 t

Beijing 24 8 pc 23 9 s

Berlin 19 11 pc 19 10 pc

Bogota 21 9 r 20 9 r

Boise 23 9 s 24 10 s

Boston 26 19 pc 23 10 pc

Brussels 21 12 pc 19 11 pc

Buenos Aires 15 10 pc 18 12 c

Cairo 31 21 s 30 21 s

Calgary 20 6 pc 22 6 s

Caracas 31 25 pc 31 25 pc

Charlotte 33 20 pc 32 17 pc

Chicago 22 12 s 23 11 s

Dallas 30 20 t 27 19 c

Denver 16 7 pc 16 7 r

Detroit 26 10 pc 20 12 s

Dubai 38 28 s 29 29 s

Dublin 15 8 r 16 11 pc

Edinburgh 18 12 pc 17 9 pc

Frankfurt 20 10 t 20 11 pc

Today Hi Lo W Tomorrow Hi Lo W

Geneva 21 11 pc 22 11 pc

Hanoi 33 26 t 33 25 t

Havana 30 22 t 30 22 t

Hong Kong 34 28 s 33 28 s

Honolulu 32 24 pc 32 24 pc

Houston 33 22 pc 33 22 pc

Istanbul 24 17 sh 22 17 pc

Jakarta 31 25 c 32 25 c

Johannesburg 24 10 s 22 9 pc

Kansas City 21 9 pc 23 12 pc

Las Vegas 30 19 s 30 18 s

Lima 19 15 pc 20 15 pc

London 20 14 pc 19 11 pc

Los Angeles 32 17 s 32 18 s

Madrid 28 12 pc 28 13 s

Manila 32 27 t 32 26 t

Melbourne 23 11 pc 17 8 pc

Mexico City 23 15 pc 21 14 t

Miami 31 25 sh 31 25 sh

Milan 24 12 pc 24 13 pc

Minneapolis 18 11 s 22 10 pc

Monterey 30 21 t 29 21 t

Montreal 30 11 pc 17 7 pc

Moscow 10 0 c 11 5 pc

Mumbai 32 27 t 31 26 t

Nashville 32 19 s 27 12 s

New Delhi 36 25 s 35 24 s

New Orleans 32 24 s 33 23 s

New York City 29 20 p 26 14 pc

Orlando 33 22 s 33 23 s

#### The WSJ Daily Crossword | Edited by Mike Shenk



#### FIRE PROOF | By Damien Peterson

**Across**

1 Small tenant farm

6 Ride for a snow day

10 Tight-lipped

13 Rich kid in the "Nancy" comics

14 "Superfudge" writer Judy

15 Mamie's mate

16 Mayflower Compact signer John

17 \*One who's a stickler about maintaining a hairless body?

19 \*Stationery the color of straw?

21 Bother

22 Harbor vessel

23 Ques.'s opposite

24 Some street performers

26 Prism productions

29 Felt with the fingers

31 Man-mouse go-between

32 Galvanizing metal

33 Last letter on this side of the pond

34 \*Prize money that must be declared?

38 Brewery sight

39 Not nude

40 Fanciful story

41 Loser's admission

43 Donkeys attacked by bats, perhaps

47 Jell-O shapers

48 "My man!"

50 Ethan Allen buy

51 \*Picture of a piece of silverware sent recently?

55 Is fired, and what each starred answer does

57 Edgar or Hugo

58 Ring legend

59 "Clumsy me!"  
60 On edge  
61 Nurse's skill, for short  
62 Blog entry  
63 German steel city

**Down**

1 Etsy offerings

2 Arrive via limo

3 Geriatrics study

4 Show off one's muscles

5 Hawk on a skateboard

6 Sharp strikes

7 Upscale

8 Dubai bigwig

9 Bear's lair

10 Play down

11 Koa wood instruments

12 Ran into

14 Bantu boss

18 Clip

20 Story with a moral

24 Candidate of 2008

25 "Didn't I tell you?"

27 Direct the crew

45 Opposed

46 Bring down

48 Egotistical utterance

51 Chase away

52 Spices (up)

53 Destiny

54 Impresses greatly

55 B movie shooter

56 Outperform

**Previous Puzzle's Solution**

RICE ADAM OSAKA

ETON BOLO UNSER

FALSE LEAD TAPAS

# BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

Wednesday, September 27, 2017 | B1

**Yen vs. Dollar** 112.1910 ▲ 0.42%

**Hang Seng** 27513.01 ▲ 0.05%

**Gold** 1298.80 ▼ 0.61%

**WTI crude** 51.95 ▼ 0.52%

**10-Year JGB yield** 0.030%

**10-Year Treasury yield** 2.234%

## Nestlé Bends to Activist Pressure

Company sets margin target, accelerates share buybacks, but holds firm on L'Oréal

BY SAABIRA CHAUDHURI

LONDON—Nestlé SA on Tuesday introduced a profit-margin target and said it would accelerate share buybacks amid pressure from activist investor Dan Loeb, while remaining firm on retaining a stake in cosmetics giant L'Oréal SA.

The consumer-goods company's strategy has been in the spotlight since Mr. Loeb's **Third Point** LLC hedge fund built a 1.3% stake in Nestlé and called for steps to improve its performance, including the



BEHROUZ MEHRI/AGENCE FRANCE PRESSE/GETTY IMAGES

Third Point has been pressing Nestlé, the maker of Kit Kat candy.

sale of its stake in L'Oréal and the setting of a margin target.

Nestlé on Tuesday said it would strive for a trading operating profit margin of 17.5%

to 18.5% by 2020 on an "underlying" basis, which among other things strips out one-time charges. Its margin in the first half was 15.8%.

The company also plans to tweak the \$20.8 billion share-buyback program it announced in June. It will now purchase shares evenly in each of the three years to 2020, rather than back load them in 2019 and 2020.

Nestlé said about 10% of its portfolio by sales was ripe for a shuffling as it looks to shed slow-growth assets and invest in more promising ventures.

Shares in the company rose 1.8% on Tuesday.

The raft of announcements accompanying a closely watched investor day in London are the latest moves by the Swiss company to improve its performance under a new chief executive and pressure from Mr. Loeb.

Since Mark Schneider took the reins in January, Nestlé

has said it would sell its U.S. confectionery arm and announced investments in Blue Bottle coffee, food-delivery startup Freshly and plant-based-foods brand Sweet Earth. Mr. Schneider in February also scrapped a key internal sales target, which the company had repeatedly missed.

After Mr. Loeb in June publicly disclosed his \$3.5 billion stake in Nestlé and listed his demands, Mr. Schneider announced the share-buyback program and laid out the company's investment priorities.

He said Nestlé will focus on the high-growth areas of pet care, coffee, infant nutrition and bottled water, while also pursuing opportunities in consumer health care.

Please see **NESTLÉ** page B2

## Boeing Recruits Insurers For Plane Financing

BY DOUG CAMERON

Boeing Co. has found a new source of financing for jetliner orders that are expected to approach \$200 billion a year by the end of the decade: insurance companies.

The aerospace company has helped form an alliance of insurers to provide lenders with loan or bond guarantees for jet sales. The new partnership could fill a gap in aircraft financing created by the extended closure of export credit agencies in the U.S. and Europe. Those agencies provide less creditworthy airlines with guarantees that make their aircraft purchases cheaper.

"This could be the industry's biggest new source of finance," said Robert Morin, a former U.S. Export-Import Bank official hired in June by insurance broker Marsh McLennan to develop the product under the banner of the Aircraft Finance Insurance Consortium.

The alliance could fill a gap created by the closure of export credit agencies.

### STREETWISE

By James Mackintosh

## The IPO Is Useless And Needs Changing

A golden age of financial innovation is with us, so it's time to reinvent the IPO. Again.

The latest attempt comes from a \$690 million shell company set up by Chamath Palihapitiya, a tech-to-private-equity executive, and Ian Osborne, a British political-PR man turned technology adviser.

The project has ambitions so grand that the pair have trademarked "IPO 2.0," and picked IPOA as the ticker symbol for what they plan to be the first of many blank-check companies, **Social Capital Hedosophia Holdings Corp.** They hope to work their way up toward IPOZ.

The project is perfectly plausible, and might well work out. But we should be wary of what is another sign of the willingness of investors to put their trust and their money into financial experiments. As bull markets run on, financial innovation becomes more acceptable and trust more widespread.

The idea of reinventing the initial public offering last appeared as the dot-com boom was nearing its zenith. In Europe and the U.S., technology-focused IPO specialists started selling shares directly to retail customers by linking up with online brokerages. Not surprisingly, many of the companies vanished when the boom turned to bust.

The same is true of cash shells. So far this year, \$7.6 billion has been raised, according to Dealogic, the most since the record \$12 billion raised in 2007.

Yet, critics then and now of the IPO process are right. Companies planning an IPO pick underwriters among the Wall Street banks. Because the banks are on the hook to buy the shares if investors don't subscribe enough, they have an incentive to underprice the issue to reduce their potential losses. The too-low price creates excess demand for the shares, since they are artificially cheap, so banks have to ration the supply. Rationing is typically done by giving bigger allocations to their best clients, who do well from the usual first-day pop in price that results from the underpricing.

On top of that, preparing for an IPO involves stressful months of form-filling. An IPO brings an influx of new investors unknown to the company's founders. Plus employees typically are restricted from selling shares for a six-



CHANDAN KHANNA/AGENCE FRANCE PRESSE/GETTY IMAGES

General Electric won a \$2.5 billion deal in 2015 to sell diesel locomotives to Indian Railways, delivering 1,000 of them over 11 years.

## GE's India Train Deal in Danger

General Electric Co. is in danger of losing one of its largest industrial contracts after a political shake-up in India, highlighting the risk of

By Thomas Gryta,  
Ted Mann  
and Rajesh Roy

the conglomerate's chase to win business in far-flung markets by investing heavily in local operations.

GE won a \$2.5 billion deal in 2015 to sell diesel locomotives to **Indian Railways**—delivering 1,000 of the machines

over 11 years—using a structure the company said would be a model for the future. In exchange for a massive order from one of Asia's biggest economies, GE would agree to build the locomotives in a remote corner of the Indian countryside, boosting employment and the local economy.

But a new railways minister, Piyush Goyal, stunned GE leaders earlier this month by declaring that India would pull out of the deal and instead seek to transform its massive rail network to use electric locomotives exclusively.

GE executives met with Mr. Goyal last week, according to people familiar with the meeting, to try to keep the deal together.

"The contract is being reviewed, but has not been terminated as of yet," a senior official at **India's Railways Ministry** said. "We are discussing various options with GE. We are exploring if they can make electric locomotives for us."

"We continue to meet our targets and execute on the project," said Karan Bhatia, vice president of government

affairs at GE. "The idea that the rail transportation needs of India can be met by pure electrification strains credibility."

"We are optimistic that reality will prevail and the government will move forward with this critical project," he added.

GE doesn't make electric locomotives.

In his public remarks, Mr. Goyal said the ministry would double its plans to electrify tracks, from 17,000 kilometers (nearly 10,600 miles) to 35,000 kilometers of track, obviating

Please see **TRAIN** page B2

Only one-quarter of new aircraft are paid for in cash, with the balance financed through bank loans and the capital markets. More financing from insurers could attract fresh investors and draw back others who have pulled back from the market, industry experts say.

A consortium of four insurers—Allianz AG, Axis Capital, Sompo International and Fidelis SA—has been assembled to provide guarantees that loans or bonds are paid, replicating the role of the big export credit agencies.

"It's credit insurance on steroids," said Jon Byron, senior vice president at Apple Bank Inc., which co-arranged the purchase of a Boeing 747-8 freighter using the structure for lessor Intrepid Aviation, which is renting the plane to Russia-based AirBridgeCargo.

Intrepid Chief Financial Officer Mike Lungariello said the new program isn't a replacement for export credit financing. Boeing has lobbied for the return of U.S. export credit guarantees, which have been suspended since July 2015 because of a fight over the pro-

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### INSIDE



#### FDA's Boss Pushes for Nicotine Fix

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#### ALIBABA TAKES CONTROL OF LOGISTICS FIRM

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## European Banks Back in Merger Mind-Set

By MAX COLCHESTER  
AND BEN DUMMETT

The freeze in European bank mergers is finally showing signs of thawing.

After being whipped by scandals and losses, Europe's banks retreated to their domestic markets to patch up their balance sheets.

Now, some are starting to look outward again. Merger-and-acquisition bankers, who were once shooed out of European bank boardrooms, say they are getting a warmer reception. Fears that the eurozone will collapse have receded, and bank valuations have rallied. Meanwhile, the eurozone's banking regulator wants deals to create more pan-European banks and to boost the sector's meager profits.

For European bank deals, "the pendulum has started to move away from a hard no," said Peter Mason, **Barclays** PLC's co-head of financial institutions for Europe and the

Middle East.

So far, deals have largely involved big banks snapping up weaker domestic competitors, often at the urging of regulators. This year, Spain's failing **Banco Popular Español** SA was taken over by **Banco Santander** SA. Three smaller Italian banks were swept up by **UBI Banca** SpA.

The most often cited targets by bankers as possible cross-border tie-ups are partially nationalized banks like Germany's **Commerzbank** AG, **Bankia** SA in Spain or the Netherlands' **ABN Amro Group** NV. Among the potential acquirers, analysts say, are France's **BNP Paribas** SA and Sweden's **Nordea Bank** AB.

Europe still has too many unprofitable banks, analysts say. A survey in June showed that only 50% of European banks believe their current earnings cover their cost of equity, according to the European Banking Authority. Raising the pressure are new rules that force banks to is-

### Looking Up

European bank valuations are recovering.



Source: WSJ Market Data Group

THE WALL STREET JOURNAL

sue debt that can be written off if the lender founders. The cost of this pricey issuance could leave smaller banks with little option but to embrace a partner, bankers say.

Meanwhile, bankers are betting on a political push to create a tighter-knit eurozone that will help see the creation

of European banking champions. The election of French President Emmanuel Macron and the victory this week of German Chancellor Angela Merkel's conservative alliance are expected to drive financial integration further.

But a series of regulatory hurdles remain. The lack of a single European deposit-insurance system is hampering deals. The European Central Bank is reviewing banks' risk models, a move that might force them to hold more capital. The eurozone's chief banking regulator, Danièle Nouy, has said she doesn't want weak banks to collapse into each others' arms. Bankers say deals could still be a year or so away.

Past pan-European mergers haven't been that successful.

From 2006 to 2016, only 44%

of European cross-border bank deals generated value,

according to consulting firm

Oliver Wyman. That compares with 60% for domestically focused takeovers.

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## STREET

Continued from the prior page month lockup period.

Messrs. Palihapitiya and Osborne aim to fix this process. They want tech "unicorns" worth above \$1 billion to use a reverse takeover of the cash shell to gain a stock-market listing without all of the regulation and kerfuffle of an IPO.

The 25 big shareholders who hold almost all of the Social Capital Hedosophia stock would get to know the target company first, the price would be set by negotiation between the company's board, its big shareholders and the target, and—if they were right—there would be no first-day pop. Lockups would be smarter, with some employees able to cash in right away, while founders and late-stage venture capitalists might still be locked in.

The system is both beautiful and silly. There are drawbacks for shareholders: They have to commit their cash upfront, with no way to know how long it will be until a target company is found. When the target is found, they have the choice to pull out and get their money back, under the rules governing blank-check companies. But if they opt out, they might not be allowed into IPOB, C or D. They are also expected to stick with the company after the deal, so they can't rely on a quick profit from selling out as soon as the shares leap.

Companies get a quicker listing with less administrative hassle, are likely to get a more stable stock price after the deal, and end up with a relatively small number of committed shareholders.

If it were purely a matter of matching investors willing to commit for the long term against a management eager to have long-term investors,

it would be fine, if wildly overpriced (more on that later). But investors are giving up flexibility by handing over their cash now, without even knowing what company might be the Social Capital Hedosophia target, and should expect to pay a lower price in return for such a long-term view. Yet, a big part of the appeal from the company's point of view is that they don't have to offer the stock-price discount that the investment banks impose in a traditional IPO.

If the price comes in about the same, the promise of stock stability and less regulation might satisfy both sides—although the high fees that SCHH is charging hardly seem worth it. After a deal, it gets 20% of the cash raised, paid in equity, against a typical 7% Wall Street underwriting fee, although post-listing advice from Mr. Palihapitiya's private-equity group, Social Capital, is thrown in.

There are other alternatives. **WR Hambrecht & Co.** offers an auction where investors bid for stock and say what they are willing to pay. But it hasn't caught on.

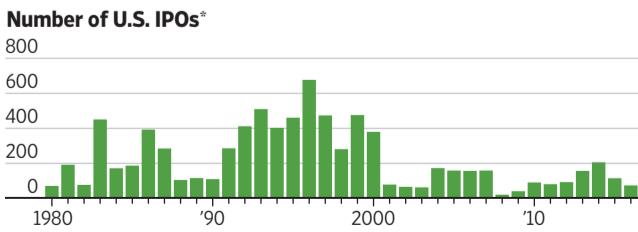
The best option would be to fix the existing IPO. Lockup periods on shareholders could easily be smarter. Investment banks could bring a variant of the auction process into their price-setting to reduce the first-day pop. And the company coming to market could get more say over the type of investor who gets stock, reducing the banks' ability to help their clients.

The willingness of investors to back Social Capital Hedosophia shows how fed up they are with the traditional IPO. But it also shows how ready they are to put their trust, and \$690 million, in a financial experiment. It is one more sign that the bull market is growing old.

## IPOs: Priced to Go

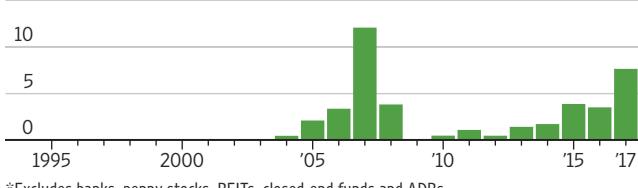
On average IPOs make a solid first-day gain, suggesting a pattern of underpricing.

### Average first-day return



Cash shells have raised the most since the end of the last bull market.

### Total funds raised for cash shells<sup>1</sup>



<sup>1</sup>Excludes banks, penny stocks, REITs, closed-end funds and ADRs

<sup>2</sup>Special-purpose acquisition companies, or blank-check companies

Sources: Jay Ritter (IPOS); Dealogic (SPACs)

## BUSINESS & FINANCE

# Honeywell CEO Looks to Future

BY THOMAS GRYTA

MORRIS PLAINS, N.J.—Darius Adamczyk was working at **General Electric** Co. in the 1990s when he realized there was more to life than devising algorithms for military programs.

"I really didn't see myself as an engineer 30 years from where I was at that point," he said in an interview earlier this month. "I kind of wanted to have a little more interaction with people on a day-to-day basis."

Now as the chief executive of **Honeywell International** Inc., the 51-year-old is deep in discussions with employees, customers and investors as he evaluates the conglomerate, including if it should remain whole.

In the job since late March, he succeeded his mentor, Dave Cote, who pulled off a turnaround at Honeywell, increasing its market value fivefold during his 14-year tenure and expanding the company through acquisitions so that it now makes things as diverse as jet engines and thermostats. Its stock is up 19% so far this year, while shares of larger rival GE are down 23%.

Mr. Cote remains Honeywell's chairman through April, and Mr. Adamczyk is intent on continuing his winning streak.

"If this was all Dave, then we didn't build something that's sustainable," he said.

Mr. Adamczyk was 11 when he immigrated with his family to the U.S. He went on to study electrical and computer engineering at Michigan State University before joining GE as an electrical engineer. While there, he earned a master's de-



Mr. Adamczyk is evaluating the conglomerate's 17 business units.

### Darius Adamczyk

◆ **Position:** Chief executive, Honeywell International Inc.

◆ **Age:** 51

◆ **Background:** Born in Poland. Immigrated to the U.S. with his family at age 11. The family settled in Grand Rapids, Mich., and he became proficient in English after about six months.

gree computer engineering from Syracuse University.

After GE, he attended Harvard Business School, and then spent four years at consulting firm Booz Allen Hamilton, followed by stints at industrial manufacturer Ingersoll-Rand PLC and scanning- and data-software firm Metrologic.

Honeywell bought Metrologic in 2008, and Mr. Adamczyk, its CEO, joined Honeywell's executive team.

Mr. Cote admired Mr. Adamczyk's immigrant roots, ed-

ucational achievements and professional ascent and took the younger executive under his wing. Mr. Adamczyk, though three levels lower in the corporate hierarchy, told Mr. Cote that he would like to get back to the helm one day.

Mr. Cote's advice: Excel in the role you are in and make sure you are visible in the company.

According to the former CEO, succession planning at Honeywell began about 10 years ago.

ment over the 42 years Nestlé has held it. "Our approach to this investment is currently not changing."

Third Point declined to comment.

Nestlé is aiming for mid-

performing businesses, like its Yinlu peanut milk brand in China.

Nestlé plans to cut costs in manufacturing, procurement and general and administrative areas, saying it will spend 2.5

billion francs (\$2.6 billion) on restructuring between 2016 and 2020 to achieve annual cost savings of between 2 billion and 2.5 billion francs by 2020. To do this, the company will consolidate offices, increase its global buying, close factories and outsource man-

agement of its pension fund, among other measures.

Nestlé will also further invest in frozen foods. It also plans to focus on ready-to-drink cold coffee and out-of-home coffee, Mr. Schneider said, highlighting the opportunity in rising coffee consumption in China, India and Africa.

RBC analyst James Edward Jones said Nestlé's new margin target was already baked into his estimates, leaving his target price unchanged.

UBS analyst Pinar Ergun was more bullish, saying the targets could prompt analysts to raise consensus expectations for 2020 per-share earnings. "More importantly it is likely to reassure the skeptics that change is under way at Nestlé," she said.

## BOEING

Continued from the prior page  
gram in Congress.

"Export credit remains a necessary financial instrument with large capacity, especially in tight credit markets," a Boeing spokesman said.

Airbus SE customers have also been unable to tap export credit funding, with agencies in the U.K., France and Germany closed to large aircraft business because of a probe into alleged corruption.

While Boeing was heavily involved in developing the new finance structure, it could be used by other jet makers as well, including Airbus. "It is another tool to finance aircraft purchases," said an Airbus spokesman.

Apple Bank has been regularly involved in export credit deals, while poor returns kept co-arranger ING Groep NV out of the market for a number of years before being attracted back to the new structure.

Planes such as the 747 jumbo are among the hardest to finance because of a rela-

tively small customer base. Boeing has opted to rent some of the planes in recent years after airlines found them tough to buy with commercial funds.

Norwegian Air Shuttle ASA has been the biggest cus-

tomers through the new program. Greensill Capital, a supply-chain finance specialist, has used insurance-backed bonds to finance six Boeing 737 Max planes for the Norwegian low-cost carrier's

leasing arm.

London-based Greensill is a new entrant to aircraft finance, though it is active in the broader aerospace industry, running a supply-chain finance network for Airbus.

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## BUSINESS NEWS

# More Big Firms Put Politics in the Open

Some 40% of S&P 500 companies have board committees review spending on elections

BY THEO FRANCIS

More large companies are disclosing how they spend to influence government, and company boards are taking on a more direct role in overseeing that spending, a new study finds.

Together, the changes underscore the pressure companies face to limit political involvement even after winning the legal right to spend more on elections.

Nearly 40% of S&P 500 companies have put political spending and contributions under direct review of a board committee, up from about one-third in 2015, according

an annual study by the nonpartisan Center for Political Accountability and researchers at the University of Pennsylvania's Zicklin Center for Business Ethics Research.

Meanwhile, board committees at 31% of the companies review payments to trade associations, which often serve as a conduit for campaign and other political spending, up from 24% in 2015, the study found.

The CPA-Zicklin Index of Corporate Political Disclosure and Accountability, in its seventh year, scores companies on how thoroughly they disclose their policies governing a variety of political spending, including state and federal campaign spending, political advertising and payments to trade associations or other entities that engage in political spending. The index doesn't include lobbying spending.

Public debate over the role

of companies in U.S. elections has simmered since the Supreme Court relaxed restrictions on corporate political spending in 2010. Companies, especially publicly traded ones, continue to account for a relatively small portion of overall spending on federal elections.

*Even though the rules were relaxed, firms face more pressure to limit their activity.*

An analysis by the Conference Board found companies and trade associations accounted for less than 2% of the \$7.5 billion spent in the 2016 election cycle; individuals accounted for two-thirds of the total.

Still, during the most recent proxy season, 49 companies in the S&P 500, including **Emerson Electric Inc.** and **Berkshire Hathaway Inc.**, faced shareholder proposals seeking political-spending reports from companies, Ernst & Young reported in June. On average, 26% of shares were voted in favor of the proposals.

In the end, accountability efforts like the index, along with shareholder resolutions seeking greater disclosure and the risk of consumer backlash, serve as a kind of nongovernmental check on corporate spending, said Robert Yablon, a University of Wisconsin law professor who has written on the subject and wasn't involved in the project.

"There are some private forces at work that are resulting in much less corporate money being put into elections than many would have ex-

pected," Prof. Yablon said.

In this year's index, utilities and companies in the healthcare and materials sectors tended to receive the best scores, while real-estate, consumer-discretionary, industrial and technology companies fared worst. Larger companies tended to score higher.

The trend toward greater disclosure reflects a growing sense that good corporate governance requires it—but it also provides companies some cover, says Bruce Freed, president of the Center for Political Accountability, which seeks to increase such disclosure.

"They recognize that having disclosed, and having policies, lets them better manage their political spending," Mr. Freed said. "It's much easier to say no—then when you say no, it's not personal, it's policy-based."

**Becton, Dickinson and Co.**, a maker of medical equipment

and supplies, topped this year's rankings. The company sees political disclosures much like those surrounding any other activity, said Elizabeth Woody, vice president of public policy and government relations. "We're proud and confident of what we do, and we're happy to share that with others."

The number of S&P 500 companies disclosing at least some dollar figures for political spending fell slightly, to 295 from 305, in part because of turnover in the S&P 500. In addition, more companies are simply prohibiting some or all political expenditures, the group found.

About one-third of companies in the index forbid at least one type of political spending, most commonly independent expenditures such as company-paid advertising supporting or criticizing candidates.

## New U.S. Regulator Takes Aim at Nicotine

BY JENNIFER MALONEY

Scott Gottlieb was once a critic of the Food and Drug Administration, arguing it should move faster. Now as its leader, he has taken an idea that had been discussed inside the agency for years—removing almost all the nicotine from cigarettes—and is racing ahead with it.

About two months after Dr. Gottlieb took over as commissioner, the FDA announced it wanted tobacco companies to make all cigarettes with such low levels of nicotine that they are no longer addictive. It plans to start the process by the end of the year.

Dr. Gottlieb's surprise July 28 announcement on the tobacco-policy shift—dubbed "FDA Friday" by industry analysts—sent shares of Marlboro maker Altria Group Inc., British American Tobacco PLC and other tobacco stocks plummeting.

The move reflected a two-pronged policy that Dr. Gottlieb hopes will win broad support: making cigarettes less appealing while offering smokers safer alternatives. If tackled separately, the two pieces would have faced more opposition, Dr. Gottlieb said in an interview.

As part of the announcement, the FDA also said it would give makers of e-cigarettes already on the U.S. market—over which the agency asserted regulatory control last year—more time to apply for regulatory approval.

The moves could dramatically reduce the smoking rate in the U.S. Nicotine itself doesn't cause disease but it hooks people on cigarettes, which kill 480,000 people in the country each year.

Dr. Gottlieb said his experience working at hospitals in New York and Connecticut offered "visceral" lessons in smoking's toll. "A lot of what you see in hospitals is smoking-related illness," the 45-year-old physician said. "It's not just cancer, but it's heart



Food and Drug Administration chief Scott Gottlieb, who is a cancer survivor, wants to remove nearly all the nicotine from cigarettes.

disease, it's diabetes, it's lung diseases."

Tobacco executives have applauded the FDA's pledge to encourage the launch of less harmful products—an area in which they have invested aggressively. They also noted that any change in cigarette nicotine levels must be backed up by scientific research and must take into consideration potential consequences such as a black market.

Research funded by the FDA and National Institutes of Health has shown that when nicotine was nearly eliminated in cigarettes, smokers were more likely to quit or seek their nicotine fix from less harmful alternatives such as e-cigarettes or gum compared with smokers who continued using cigarettes with normal nicotine levels.

Lowering nicotine in cigarettes has been a subject of discussion inside the FDA since the 1990s, according to current and former agency officials. It can be done in different ways, such as genetically modifying tobacco plants or stripping nicotine from the leaf in the manufacturing process. In 2009 the Tobacco Control Act authorized the FDA to mandate such a change—with the stipulation that the policy be based on scientific evidence, a caveat that slowed the process for years.

"If it works, it will save more lives than anything else the FDA could do," said Robert Califf, an Obama nominee who took the helm of the FDA in 2016.

Dr. Gottlieb served as deputy FDA Commissioner for two years under the George W. Bush administration, and more recently he was a fellow at the American Enterprise Institute, a conservative think tank, writing essays and op-eds for The Wall Street Journal and other outlets.

For the past decade, Dr.

Gottlieb has been an investor, consultant and board member for cancer-therapy startups, drug giants such as Bristol-Myers Squibb Inc. and Kure, a startup retailer of vape pens and liquids. He said his year-long stint as a Kure director stemmed from his interest in developing lower-risk products.

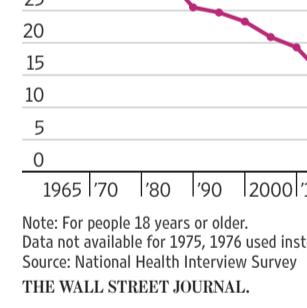
Dr. Gottlieb has divested from more than 20 companies and pledged to recuse himself from FDA decisions involving groups with whom he had a business relationship in the past two years.

In public appearances, Dr. Gottlieb often mentions that he is a cancer survivor, having been diagnosed with early-stage Hodgkin lymphoma in 2006.

Some antismoking advocates and Democratic senators have expressed concern about Dr. Gottlieb's decision to push back the product-application deadlines for e-cigarettes and

### Changing Habits

The share of adult smokers in the U.S. population over the past 50 years



Note: For people 18 years or older.  
Data not available for 1975, 1976 used instead  
Source: National Health Interview Survey

THE WALL STREET JOURNAL.

other vaping products already on the market. But overall, the policy shift has earned praise from lawmakers, smoking opponents and the tobacco industry.

## Axovant Drug Fails in Key Trial

BY JONATHAN D. ROCKOFF

Axovant Sciences Inc. said Tuesday that the company's experimental Alzheimer's drug failed to meet the goals of a pivotal trial, the latest setback for efforts to find new treatments for the memory-robbing disease.

Subjects in the study didn't show signs of improved cognition or daily living, according to the drug company. The company will stop pursuing the drug's use for the treatment of Alzheimer's.

"We are really, really disappointed. We hoped for the best, but this is a difficult disease area," Axovant Chief Executive David Hung said in an interview.

The performance for the drug, known as intepirdine, was watched closely on Wall Street because, even if the benefit was modest, analysts expected the drug to have more than \$2 billion in sales.

Axovant, based in Basel, Switzerland, had built up a \$2.6 billion market cap before announcing the trial failure. Shares in the company were down 73% on Tuesday afternoon at \$6.66.

Dr. Hung said Axovant will now focus on other programs in development, including using intepirdine to treat another neurodegenerative condition known as dementia with Lewy bodies.

Axovant expects those trial results by the end of the year.

Alzheimer's disease has proven to be an especially tough target for developing treatments. Just a handful of drugs have been approved to treat the disease, and they are indicated for relief of symptoms, not an underlying cause.

Meanwhile, experimental therapies from Eli Lilly & Co., Pfizer Inc. and Johnson & Johnson that aimed to slow the disease have failed during testing.

Yet companies have kept looking for a breakthrough, because the need is so high and commercial potential so huge. About 5.5 million Americans have the disease, and the numbers are expected to rise as the population ages.

Analysts say potential Alzheimer's treatments could have multibillion-dollar sales potential, if they can demonstrate they work safely.

The intepirdine study of 1,315 subjects, known as Mindset, examined whether learning and memory improved in patients getting a combination of intepirdine and the widely used therapy, Aricept. Compared with subjects who took Aricept alone. But the phase 3 study failed to show a numerical improvement and the results didn't reach statistical significance for the primary endpoints, according to Axovant.

The results represented the bare outline of how intepirdine performed in the trial. Axovant plans to present the full results at a medical meeting in November.

## Buyers Wait to Pounce on Sizable Deals

BY EZEQUIEL MINAYA  
AND TATYANA SHUMSKY



chases have been large, they don't fundamentally change the company's product offering, Mr. Wolf said. Whole Foods would add to Amazon's large sales catalog, while the business lines of aerospace suppliers United Technologies and Rockwell Collins overlap enough to draw antitrust concerns.

Glen Landau, chief financial officer of **International Paper** Co., said he spends about one-third of his time scouting potential acquisition targets and weighing investment costs against projected returns.

Still, 99% of those efforts don't lead to a deal because an overpriced target isn't worth pursuing, Mr. Landau said. "We're ready to strike if the window opens," he said. "Our job is to create value; it's not to get bigger."

International Paper in December purchased **Weyerhaeuser** Co.'s wood pulp business for \$2.2 billion. It nabbed the unit from a motivated seller at a time when inventories were at a high and wood pulp prices were at a low, Mr. Landau said.

Finance chiefs may be running out of time to revive a year of weak merger-and-acquisition activity but are prepared to pounce off the sidelines, if conditions pressuring deal making subside.

Buyers are more selective this year, preferring smaller transactions as a soaring stock market pumps up company prices. The S&P 500 index is up 16% over the past year, and as company shares rise in value, premiums—the bump above share prices buyers offer to sellers—are being squeezed.

There is also some hesitancy to strike a deal before passage of a possible corporate tax overhaul and potential new trade policies.

Deals are still being done, but on the more modest end of the scale. While the number of U.S. deals is up 5% for the first half of 2017, values have slipped 16%, to \$591.5 billion, according to data provider Dealogic.

Only seven deals through the first half of the year have breached the \$10 billion threshold, according to De-

logic. That trails last year's pace, in which there were 18 such deals through December, and 2015, which notched 35 transactions above the mark, according to Dealogic.

Some of this year's large deals include **Amazon.com** Inc.'s acquisition of Whole Foods Market Inc. for \$13.6 billion and **United Technologies** Corp.'s acquisition of **Rockwell Collins** Inc. for \$22.8 billion. While these pur-

GENUINE PARTS

### Alliance Automotive To Be Purchased

Genuine Parts Co. has reached an agreement to buy **Alliance Automotive Group**, a private-equity-backed European auto-parts distributor, in a deal valued at \$2 billion, including repayment of debt.

—Cara Lombardo

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## TECHNOLOGY

WSJ.com/Tech



Alibaba increased its stake in affiliate Cainiao to 51% from 47%, part of its strategy to create a 'seamless experience for shoppers.'

## Alibaba in Logistics Push

E-commerce giant plans to invest around \$15 billion to build up global infrastructure

BY ALYSSA ABKOWITZ

BEIJING—**Alibaba Group Holding** Ltd. has become the majority owner of its logistics affiliate, a move that could allay concerns about financial transparency that drew the attention of U.S. securities regulators last year.

Alibaba is investing 5.3 billion yuan (\$800.8 million) to raise its stake to 51% from 47% in **Cainiao Smart Logistics Network** Ltd. It also will invest 100 billion yuan (\$15.11 billion) during the next five years to build up its global-logistics infrastructure and development of robots sorting and fulfilling merchandise.

Cainiao helps online merchants choose from among 15 delivery firms by providing information on cost and delivery

time. About 70% of Cainiao shipments are routed by algorithms to ensure the network's 2 million couriers get packages to customers as efficiently as possible.

Alibaba said the additional investment is part of its strategy to create a "seamless experience for shoppers." The company said it aims to fulfill orders in China within 24 hours, and within 72 hours anywhere in the world.

A person familiar with Alibaba's move said an inquiry by the **Securities and Exchange Commission** had no bearing on the company's action. Alibaba disclosed the inquiry in May 2016 and said it was cooperating with authorities. The SEC doesn't comment on individual companies it is examining.

Alibaba is profitable but doesn't count Cainiao losses as part of its own results, which critics have said obscures its financial picture. In a regulatory filing this year, Alibaba said its net loss from Cainiao was \$153 million in

### Heavier Burden

Alibaba's quarterly losses from Cainiao



Note: 100 million yuan = \$15 million  
Source: company reports

THE WALL STREET JOURNAL

fiscal year 2017, up from \$46 million in fiscal year 2016.

The accounting change means there will be more assets on the balance sheet, but likely won't hurt Alibaba's net income because of its outsize earnings, said Paul Gillis, a professor at **Peking University's Guanghua School** of Management. During its most

recent quarter, Alibaba reported earnings of \$2.2 billion, nearly doubling from the year-earlier period.

"I don't think it will have a significant effect on the company, but it may help them put the SEC issue behind them," Mr. Gillis said. "It basically takes the wind out of the SEC's sails."

The transaction, which is expected to be completed in October, means financial results will be consolidated under Alibaba and reported as part of the business's core commerce segment. It also will give Alibaba an additional Cainiao board seat, or four out of seven directors.

The increased stake will give Alibaba more control over logistics and customer data that offer valuable insight into people's buying habits. Analysts say that data is important as Alibaba looks to expand abroad, particularly in Southeast Asia where it has invested \$2 billion in e-commerce giant Lazada Group.

Representatives for Mr. Kalanick, Uber and Morgan Stanley couldn't immediately be reached for comment. Representatives for the firemen's fund declined to comment beyond the complaint.

The lawsuit adds to mounting legal issues faced by Uber as its new CEO Dara Khosrowshahi takes over for Mr. Kalanick, who resigned under pressure from investors in June. Uber faces three possible federal probes, including a preliminary investigation by the Justice Department into alleged violations of the Foreign Corrupt Practices Act. Uber has said it is cooperating

with the investigations.

Tuesday's shareholder allegations echo a lawsuit filed last month by one of Uber's directors and largest investors, Benchmark Capital, which is seeking the ouster of Mr. Kalanick as a director through the return to the board of three seats he controls. Though the case has been moved to private arbitration, it has overhung Uber's board and divided its investors.

Like Benchmark, the firemen's fund specifically pointed to news reports detailing Uber's use of software to evade regulators, known as Greyball, a program called Hell used to interfere with rival Lyft Inc.'s operations, a lawsuit from Google parent Alphabet Inc. over allegedly stolen trade secrets, and charges of widespread workplace discrimination.

Class-action shareholder suits targeting private companies are relatively uncommon, said Kevin LaCroix, an attorney who advises companies on directors and officers insurance. Unlike with publicly traded companies, small investors in privately held startups typically receive limited financial information and other disclosures.

"It's been these 'unicorn' companies that have attracted these suits," he said. "The potential range of damages could be very high for a company of this magnitude and valuation."

Robbins Geller Rudman & Dowd LLP, which is representing the firemen's fund in the suit, is also involved in a continuing proposed class-action shareholder suit against privately held biotech firm Theranos Inc., which was valued by investors at \$9 billion in 2014. Theranos has disputed the allegations of securities fraud.

The firemen's fund invested in Uber through a somewhat unusual arrangement with Morgan Stanley, which offered clients an opportunity to invest in a fund known as New Riders LP, while promising limited financial disclosure. Investors in the New Riders fund hoped to profit from an eventual Uber IPO, which Mr. Khosrowshahi has said won't come for at least 18 months.

## Amazon Brings Alexa to Its Music App

BY ANNE STEELE

**Amazon.com** Inc. hopes that the virtual assistant that has made its Echo smart speakers a hit will also attract more users to its mobile music app.

The online retailer said it would launch Alexa on its Amazon Music streaming apps on Tuesday, as it seeks to differentiate itself from rivals that have bigger shares of the competitive market. An on-screen button will let Amazon Music users access the various Alexa "play" commands that work on Echo.

Amazon envisions these capabilities as being useful for consumers on the move; for instance, they can request

"pop music for a cardio workout" during a run or "the new Taylor Swift song" while driving. **Apple** Inc. offers some similar functions for Apple Music, via the iPhone's Siri voice assistant.

Earlier this year, Alexa surpassed mobile as the No. 1 way Amazon Music users listen. Since starting its Prime Music streaming service in 2014, Amazon has tried to cater to a more mainstream audience than its competitors. Nonetheless, it remains No. 3 in the subscription-music market, behind **Spotify** AB and Apple Music, according to people in the music industry.

Amazon has been pouring more resources into Alexa to maintain its edge, as competi-

tition heats up among artificial-intelligence assistants from **Alphabet** Inc.'s Google and Apple, according to people familiar with the company's thinking.

Google's and Apple's assistants have more data to learn from, thanks to their mobile phone businesses and usage on those devices. Amazon has sold an estimated 15 million Echo speakers, according to Consumer Intelligence Research Partners.

Alexa already joined Amazon's main shopping app earlier this year. Consumers appear to have been slow to adopt that function, in part because it isn't obvious to the average user that Alexa is integrated, according to people

familiar with the matter.

Steve Boom, Amazon's vice president for music, says he hopes music will be a natural fit for the voice assistant. "We

should let people know about it, but we shouldn't have to train them," he says.

Members of Amazon's \$99-a-year Prime program can subscribe to Amazon Music Unlimited, launched last October, for \$7.99 a month, though they already get access for no additional charge to the company's more limited Prime Music service. Amazon Music Unlimited as a stand-alone service costs \$9.99 a month, on par with Apple Music and Spotify's premium tier.

—Laura Stevens contributed to this article.

## Facebook Scores in Video Deal With National Football League

The National Football League plans to put game highlights and recaps on Facebook, as the social network works to increase premium video content for its "Watch" platform.

While trying to build a video platform rivaling **Alphabet** Inc.'s YouTube, **Facebook** Inc. has been paying producers to offset production costs, offering to license or buy content outright and offering some share of revenue generated from planned video ads.

Financial terms of the multi-year deal announced Tuesday weren't disclosed. NFL highlights of all regular-season games, the playoffs and the Super Bowl will be available to people globally on Facebook.

The NFL's media division also will distribute uniquely packaged content for Watch, including NFL Turning Point, which documents the drama and strategy on specific games, and Sound FX, which provides highlights from in-game, player audio.

The agreement doesn't include live-streaming games, such as Monday night's contest pitting the Arizona Cardinals and Dallas Cowboys, right.

In April, the league and **Ama-**



JENNIFER STEWART/GETTY IMAGES

zon.com

reached a deal to stream 10 Thursday night games.

—Austen Hufford

## Uber Is Facing Shareholder Suit Alleging Fraud

BY GREG BENINGER

A small shareholder of **Uber Technologies** Inc. on Tuesday sued the ride-hailing company and its former chief executive for allegedly covering up "illicit business tactics," the latest legal challenge following months of scandals at the highflying startup.

The lawsuit from the Irving Firemen's Relief & Retirement Fund in Texas claims Uber and former CEO Travis Kalanick knowingly misled investors while raising capital by failing to reveal the company had potentially broken laws, revelations that allegedly cost investors billions of dollars in losses on investments. The complaint, filed in the U.S. District Court for the Northern District of California, seeks class-action status on behalf of Uber's myriad investors, and asks for unspecified damages.

The small retirement fund invested about \$2 million in Uber in February 2016 through a Morgan Stanley fund at a \$62.5 billion valuation. Like Benchmark, the firemen's fund specifically pointed to news reports detailing Uber's use of software to evade regulators, known as Greyball, a program called Hell used to interfere with rival Lyft Inc.'s operations, a lawsuit from Google parent Alphabet Inc. over allegedly stolen trade secrets, and charges of widespread workplace discrimination.

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Pinterest expects to strike similar deals with advertisers.

## Target Aims to Embed Pinterest Tool in App

BY ELIOT BROWN

**Pinterest** Inc. has long sought to support its lofty valuation by wooing advertisers to its image-search platform. Now it is bringing its technology to them.

The San Francisco company has struck a deal with retailer **Target** Corp. to license its camera image search tool, which lets users of Pinterest's app browse similar images and objects to pictures they take with their phones. Target will embed the tool in its own app, allowing shoppers to snap photos on their phones of items they like and receive suggestions from Target for similar products to buy.

The companies didn't disclose the financial details behind the deal, which is bundled together as part of a multiyear ad purchase by Target that Pinterest described as its largest ever.

"We believe visual search in particular is incredibly important to our business," said Kristi Argyilan, senior vice president for marketing at Target.

The accord shows how Pin-

terest is hunting for new ways to bring in money and attempt to chip away at the dominance in online advertising by Google Inc. and Facebook Inc.

Tim Kendall, the company's president, said Pinterest expects to take a similar approach with other advertisers, using other technology and data to woo large ad deals.

Target has exclusive use of the camera search tool among retailers in the U.S. as part of the multiyear deal. But Pinterest says businesses in other industries outside of retail could benefit from the search tool, and it also believes it has valuable trend-spotting information that it can deliver to advertisers.

Investors have had high expectations for Pinterest, giving it a private-market valuation of more than \$12 billion in its last funding round this spring, when it raised \$150 million.

But seven-year-old Pinterest still pulls in relatively small revenue. The company is targeting up to \$500 million of revenue this year, compared with about \$300 million last year, according to a person familiar with the matter.

## MANAGEMENT

# Directors Urged to Sit on Fewer Boards

Big institutional investors like BlackRock and State Street are raising concerns, saying some members are stretched thin

BY SARAH KROUSE  
AND JOANN S. LUBLIN

Giant money managers voted against the re-election of Ronald Havner Jr. in May to the board of a real-estate company. Their reason: He runs a different company and sits on two other boards.

After about 56% of voting shares were cast against Mr. Havner remaining an **AvalonBay Communities** Inc. director, he said he would resign, an offer rejected by the rest of the AvalonBay board. **BlackRock** Inc. and **State Street** Corp.'s money-management unit were among the large investors that voted against his re-election.

Mr. Havner, who is chief executive of Public Storage, also decided not to stand for re-election at **California Resources** Corp.'s 2018 annual meeting "due to concerns raised by investors relating to the time commitment required" for those roles, the company said in a regulatory filing.

Mr. Havner "has taken steps to reduce the number of boards upon which he serves," said a lawyer for Public Storage and **PS Business Parks** Inc., a related company.

Major institutional investors, governance advisers and boards themselves are cracking down on so-called overboarding, trying to ensure that directors don't spread themselves too thin. Overstretched directors lack time to adequately monitor management, these critics contend.

"There is no good reason for having an overboarded director," said Charles Elson, head of the Weinberg Center for Corporate Governance at the University of Delaware. He expects institutional-investor pressure will make S&P 500 board members with at least five seats a dying breed.

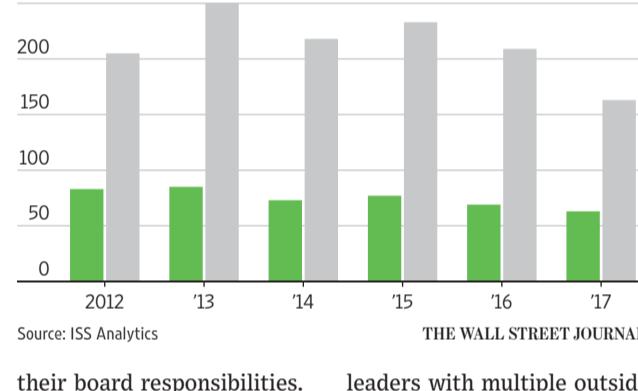
Many directors who serve multiple boards contend that they adequately manage their time and can handle



Zach Oleksiuk of BlackRock, above, says the issue isn't performance, but rather the time it takes to serve. At right, Ronald Havner Jr. has acted to reduce the number of boards on which he sits.

### Lightening the Load

The number of directors on five or more corporate boards has declined in recent years.



their board responsibilities.

A new analysis of S&P 500 chief executives for The Wall Street Journal by Equilar, a research firm, suggests that

leaders with multiple outside corporate board seats and their employers make more money, but their shareholders see lower returns than



JIN LEE/BLOOMBERG NEWS; ANDREW KELLY/REUTERS (TOP)

those with one or zero outside directorships.

Money managers such as BlackRock and State Street, with large index-tracking

fund businesses, are gaining more power over shareholder votes because they own growing stakes in so many publicly held corporations. Both voted against Mr. Havner's AvalonBay re-election in each of the past two years.

BlackRock, the world's largest asset manager, cast 168 votes against directors this year because of overboarding concerns. It fought the re-election of directors at companies such as Charter Communications Inc., Pfizer Inc. and PayPal Holdings, Inc., according to filings and a spokesman for the money manager.

"The directors that serve on many boards tend to be very strong directors," said Zach Oleksiuk, head of BlackRock's Americas corporate governance and responsible investment team. "The issue is not necessarily their performance, but rather the time that it takes to serve."

Being a director is lucrative, time-consuming and often comes with a high profile. Median total compensation for U.S. public board members was \$191,440 last year, according to the National Association of Corporate Directors and pay consultants Pearl Meyer & Partners LLC, up about 3% from the prior year.

Board members at public companies spend an average of 245 hours a year for each position, up from 191 hours in 2005, according to surveys by the NACD.

Influential proxy advisers Institutional Shareholder Services Inc. and Glass, Lewis & Co. now recommend investors vote against or withhold support from directors who sit on more than five public-company boards.

ISS lowered that threshold to five in February from six. Each firm also favors limits on the number of outside directorships CEOs can hold.

American corporations increasingly have imposed their own restrictions. About 77% of S&P 500 companies now curb board members'

outside directorships in some fashion, up from 71% in 2010, according to Spencer Stuart, an executive-search firm. Among those with limits for all directors, 36% now impose a cap of three seats—up from 29% in 2010.

Overall, 63 S&P 500 directors now serve on five or more public boards, as of Sept. 10, down from 83 in 2012, according to ISS Analytics, the data arm of Institutional Shareholder Services.

Some directors were re-elected this year despite opposition from some large shareholders. For example, BlackRock withheld support for the re-election of Ann Mather at Shutterfly Inc. and Alphabet Inc., but she was re-elected at both companies.

Ms. Mather also serves on the board of three other West Coast public companies: Arista Networks Inc.; Netflix Inc.; and Glu Mobile Inc. She deliberately chose businesses in the same or related industries with headquarters near each other, one person familiar with the matter said.

The person said this week that the businesses are "all connected and relevant," which means Ms. Mather "can easily add value and [has] a strategic understanding of what's going on."

Another big index-fund manager, Vanguard Group, doesn't explicitly put a limit on the number of boards on which someone can serve but looks at factors such as board members' "attendance, engagement and effectiveness," a spokeswoman said.

Rival State Street Global Advisors in 2016 cast votes against 69 chief executives who served on more than three boards and against 22 non-CEO directors who each sat on more than six public boards. Despite setting overboarding limits, it wants companies to "do more than manage to a number," Rakhi Kumar, head of environmental, social and governance and asset stewardship at the firm said in an email.

## Who Wins When CEOs Sit on Multiple Boards? Not Investors

BY JOANN S. LUBLIN

Chief executives make a lot of money when they hold board seats at other companies. Their employers benefit, too.

But investors don't fare so well.

These disparate outcomes, which emerge from an analysis of chief executives of S&P 500 companies for The Wall Street Journal by research firm Equilar, may intensify concerns about "overboarding." Critics contend that executives on numerous boards are too busy to adequately oversee management.

Chief executives with at least two outside directorships earned a median compensation of \$13.6 million for leading their employer in 2016,

while CEOs on one and on no external board made 5.6% and 12.9% less, respectively, Equilar reported. Businesses run by the busiest top bosses also had higher median net profit, revenue and market capitalization last year.

Shareholders saw median one-year total return—which tracks stock performance plus reinvested dividends—of 8.2% at the 37 companies with CEOs who serve on multiple boards, compared with a total return of more than 15% for chief executives with a single or zero outside directorship. It was 14.4% for all S&P 500 firms.

Equilar uncovered smaller differences for three-year total shareholder return. The study covered 349 companies with

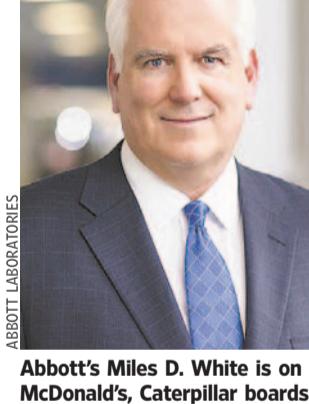
the same leader for three years. Subpar shareholder results at companies with multibored chiefs "could be a red flag," prompting institutional investors to oppose their board reelections elsewhere, said Equilar spokesman Dan Marcec.

About 22% of S&P 500 company boards already limit their CEO's outside directorships, according to Spencer Stuart, an executive-recruitment firm. The most common maximum is two outside seats. Based on Equilar's analysis, some boards now may "tighten restrictions a little bit more," predicted Patrick McGurn, special counsel at Institutional Shareholder Services, a proxy-advisory firm.

Highly regarded chief exec-

utives often command higher pay and get wooed for external board service, said Irv Becker, vice chairman of executive pay and governance for a unit of recruiters Korn/Ferry International. Recent investor returns may not reflect CEO reputations built over long careers, he added.

Miles D. White, head of Abbott Laboratories, is typical. He has run the global health-care company since 1999 and earned \$20.3 million in 2016. He is a board member at McDonald's Corp. and Caterpillar Inc. Last year, Mr. White presided over Abbott's total return of negative 12.2%, lower than any other current CEO tracked by Equilar with several outside directorships. However, as a



Abbott's Miles D. White is on McDonald's, Caterpillar boards.

spokesman noted, "the value of one Abbott share bought when Mr. White became CEO has since quadrupled."

### Stretched Thin?

Total shareholder return for companies with CEOs serving on at least two outside boards compared with the S&P 500

**S&P 500 companies with multibored CEOs**

**All S&P companies**

**One-year return**

8.2% 14.4%

**Three-year return**

10.2% 10.4%

Note: For period ending fiscal year 2016

Source: Equilar Inc.

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# SEC Gets Flak On Hack Response

By DAVE MICHAELS  
AND ANDREW ACKERMAN

WASHINGTON—U.S. senators, already facing distress calls from constituents over the Equifax Inc. hack, criticized the Securities and Exchange Commission's new leader on Tuesday for how the agency handled a 2016 breach of its cornerstone system for storing market-moving information.

"I was disturbed to learn that the SEC suffered a cyberbreach of its Edgar system in 2016, but did not notify the public, or even all of its commissioners, until it was discovered during your recent review," Senate Banking Committee Chairman Mike Crapo said at a hearing Tuesday.

Facing his first crisis as the SEC's chairman, Jay Clayton suggested in testimony prepared for the hearing that his agency may have mishandled how it initially responded to the breach. Sen. Sherrod



SEC Chairman Jay Clayton

Brown (D., Ohio) was even more critical of how Mr. Clayton revealed the intrusion, saying "it raises questions about why the SEC seems to have swept this under the rug."

"This breach took place under your predecessor, but the disclosure, or lack thereof, is all yours," Mr. Brown said.

Mr. Clayton disclosed the breach last week in a single paragraph in a five-page statement on the agency's approach to cybersecurity. Mr. Clayton, who took over in May under the Trump administration, said in testimony prepared for the hearing that the regulator must do more to defend against cyberattacks. The SEC late Monday announced the formation of a cyber unit within its enforcement division that will investigate a variety of schemes enabled by technology, including market manipulation and hackers' attempts to steal inside information.

Although the breach was reported in 2016 to the Department of Homeland Security and the security gaps were patched, for months SEC commissioners and a former chief operating officer were unaware of the hack.

The corporate-filing system that was breached, known as Edgar, is the SEC's cornerstone system for storing and disseminating earnings announcements and other news that often moves stock prices. Edgar stands for Electronic Data Gathering, Analysis, and Retrieval System.

"This matter involving our Edgar system concerns me deeply," Mr. Clayton said in his prepared remarks. "Rightfully, it will cause this committee and others to increase their focus on whether the commission's approach to cybersecurity appropriately addresses our cyber risk profile."

Mr. Clayton's testimony said an ongoing enforcement probe prevents him from revealing much about the cyber break-in. He did disclose that the investigation, which he learned about in August, spurred a second look at the breach.

"In August 2017, in connection with an ongoing enforcement investigation by our division of enforcement, I was notified of a possible intrusion into our Edgar system," Mr. Clayton said.

Mr. Clayton didn't reveal the type of information accessed by hackers in 2016 or what stocks were affected.

# Greenhill Makes Play for Survival

Robert Greenhill, CEO Scott Bok give firm a \$20 million lifeline amid a deal slump

By LIZ HOFFMAN

A Wall Street rainmaker is fighting for his legacy.

**Greenhill & Co.**, the investment bank founded 21 years ago by star merger banker Robert Greenhill, has fallen into a prolonged deal-making slump and this week sought a financial lifeline from its founder.

Mr. Greenhill, who remains the firm's chairman, and Scott Bok, its chief executive, said Monday they would invest \$20 million as part of a reorganization that amounts to a partial leveraged buyout.

In all, as much as half of Greenhill's shares will be held by its employees. Also, tens of millions of dollars a year that had supported Greenhill's hefty dividend will be rerouted to creditors.

Greenhill was one of Wall Street's first merger boutiques, small firms that advise on high-stakes corporate transactions. Mr. Greenhill, an 81-year-old banking veteran who built his Rolodex at **Morgan Stanley** and Smith Barney, pioneered a model that dozens of top deal makers have followed.

Yet his firm has missed the recent M&A boom, slipping in the rankings and all but disappearing from marquee deals. Greenhill ranks 49th among global merger advisers this year, down from 16th in 2012, according to data provider Dealogic.

"They've had no momentum for some time," said Steven Chubak, an analyst at Nomura. The latest financial moves "buy some time," he added, but change little if revenue doesn't pick up.



Robert Greenhill founded the investment bank 21 years ago, but has stepped back from the business in recent years.

Greenhill shares through Monday had fallen 48% this year and 73% over the last five, though shares rose about 15% Tuesday morning following the reorganization announcement. Over the same five-year period, shares of rival Evercore Inc. have nearly tripled. Moelis & Co., another boutique, is up 61% since its 2014 initial public offering. Both have benefited from a growing preference among corporate clients for less conflicted advice.

Greenhill, though, has missed out, showing the challenge in building a firm that can outlast star founders—especially when his name is on the door. Advisory revenue has lurched sideways since 2010, even as the firm has added

bankers and expanded into new markets.

A tireless deal maker who once snowmobiled 15 miles on a vacation in rural Maine in search of cellphone reception, Mr. Greenhill has stepped back from the business in recent years, friends and employees say. Relationships that drove business in the firm's early years have gone quiet as key contacts retire.

The job of finding the firm's mojo falls to Mr. Bok, a former lawyer who trained under Mr. Greenhill at Morgan Stanley.

Mr. Bok has brushed off concerns in recent months, noting that investment banking can be lumpy and blaming a slowdown in Europe, where Greenhill once generated about half its revenue.

"Our business mix is one that has served investors well over the long term and will, I believe, do so again," he said in an interview Monday.

In recent weeks, analysts had questioned whether Greenhill could keep paying its dividend. Set at \$1.80 a share annually, it costs about \$60 million, twice what analysts expect Greenhill to earn this year.

Top executives had fiercely guarded the payout. Mr. Bok, who received \$1.4 million in dividends last year, more than twice his \$600,000 salary, said in 2011 that "you'd have to waterboard me" before he'd consider cutting it.

On Monday, he said investors were no longer giving the firm credit for the payout,

which Greenhill plans to slash or, more likely, eliminate entirely.

Instead, it will borrow \$300 million from Goldman Sachs Group Inc. to finance a buyback of more than one-third of its stock. Cash that once went to stockholders will go to pay down debt.

Goldman plans this week to start marketing the loan, which is expected to carry a below-investment-grade credit rating, according to people familiar with the matter. With the spike Tuesday, Greenhill shares were approaching the \$17-a-share buyback level announced Monday. Analysts expect the price to move higher as investors cover previous "short" bets that the stock would decline.

# CFTC to Offer Firms More for Cooperation

By GABRIEL T. RUBIN

A top U.S. markets regulator unveiled a new enforcement framework that relies more heavily on firms to self-report wrongdoing and gives them new incentives to cooperate with probes.

James McDonald, the Commodity Futures Trading Commission's enforcement director, announced the strategy during a speech on Monday.

Though the agency already has incentives to encourage firms to cooperate with investigations, the new framework says that penalties will be reduced by a "substantial" amount in cases where the firm fully cooperates.

No matter how much corporate leaders may want to foster compliance within the company, when they detect misconduct their decision whether to voluntarily report it often comes down to their perception of whether they'll be treated fairly," said Aitan Goelman, Mr. McDonald's predecessor as the CFTC's director of enforcement who is now a partner at the Washington law firm Zuckerman Spaeder.

The emphasis on rewarding cooperation was already evident toward the end of the Obama administration.

In January, the CFTC adopted a set of policies for non-prosecution agreements to clarify what type of cooperation from individuals and companies the regulator could reward as part of an

enforcement investigation.

"The CFTC, like the Department of Justice and the Securities and Exchange Commission, has long made incentivizing self-reporting by companies, and cooperation by individuals and companies, a priority," said Aitan Goelman, Mr. McDonald's predecessor as the CFTC's director of enforcement who is now a partner at the Washington law firm Zuckerman Spaeder.

Mr. Trump has appointed several top regulators with Wall Street pedigrees, including J. Christopher Giancarlo, the CFTC chairman, who has said he wants to simplify existing rules and reassess whether regulators went too

far in their implementation of the 2010 Dodd-Frank Act.

"It's always a fairly fine line

between relying on self-regulated entities and on the government's own enforcement staff, but puny budgets have made that choice easier," said Bart Chilton, a former Democratic CFTC commissioner.

Mr. McDonald said the policy change "should not be interpreted as giving a pass to companies or individuals."

To qualify for the incentives that accompany self-reporting, the company must voluntarily report wrongdoing to the CFTC, and not be under the threat of investigation. The disclosure of wrongdoing must also be explicit and not "tucked away in the depths of some compliance report," Mr. McDonald added.

# A Way to Magnify Tech-Stock Bets

By ALEXANDER OSIPOVICH

There will soon be a new, riskier way to trade one of the buzziest acronyms in the world of technology stocks.

**Intercontinental Exchange** Inc., the parent company of the New York Stock Exchange, said Tuesday it will launch a futures contract based on its new NYSE FANG+ Index. The term "FANG" refers to the quartet of **Facebook** Inc., **Amazon.com** Inc., **Netflix** Inc., and Google, whose parent company is **Alphabet** Inc.

*A new futures contract highlights ICE's effort to hang on to retail traders.*

ICE's contract will be a bit broader than that. It also will include **Apple** Inc.—which is often bundled together with the FANG foursome—as well as **Alibaba Group Holding** Ltd., **Baidu** Inc., **Nvidia** Corp., **Tesla** Inc. and **Twitter** Inc.

The contract will start trading on Nov. 8, ICE said in a statement.

There already is an exchange-traded fund with the ticker "FNG" that aims to

track the FANG stocks and their close relatives in the tech and new-media sectors.

Investors also can get exposure to the FANG bunch by simply buying shares in the four companies directly, but ICE's new contract would be the first futures contract tied to the FANG concept, according to an ICE spokesman.

Ready to jump in? Think carefully.

By buying equity futures contracts instead of ETFs, traders can leverage their bets in a bid to magnify gains when the underlying shares rise. Doing so also can amplify losses if the shares drop—and traders can even find themselves in the hole, owing more cash than they put down in the first place.

The launch shows ICE's effort to hang on to retail traders even as its rival, **CME Group** Inc., has been making inroads in that market.

CME recently has run television commercials touting futures for day traders, and in July, it began listing futures based on the Russell 2000 index—a popular product for retail investors—after buying the rights to the index from the **London Stock Exchange** Group's FTSE Russell unit.

For the 10 years before that, Russell 2000 futures were listed on ICE.

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China A-Share Fund Cls A CAD H OT HKG 09/25 CAD 12.50 14.5 12.1 10.0

China A-Share Fund Cls A EUR H OT HKG 09/25 EUR 13.06 13.8 11.1 9.4

China A-Share Fund Cls A GBP H OT HKG 09/25 GBP 12.66 13.9 14.8 10.7

China A-Share Fund Cls A USD H OT HKG 09/25 USD 13.09 13.6 11.1 11.2

China A-Share Fund Cls A NZD H OT HKG 09/25 NZD 13.33 14.2 11.9 19.5

China A-Share Fund Cls A HKD H OT HKG 09/25 HKD 13.92 24.8 18.1 12.5

China A-Share Fund Cls A SGD H OT HKG 09/25 SGD 13.40 15.5 13.8 11.7

China A-Share Fund Cls A NZD H OT HKG 09/25 NZD 11.91 19.6 18.2 5.6

China A-Share Fund Cls A OMR (OMH) OT HKG 09/25 OMH 14.73 17.5 16.1 13.5

China A-Share Fund Cls A USD (USD) OT HKG 09/25 USD 13.81 24.1 17.4 11.9

China A-Share Fund Cls A USD H OT HKG 09/25 USD 13.34 14.8 12.7 10.4

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China Greenchip-A Units CAD H AS EQ CYM 09/25 CAD 11.04 32.1 23.4 13.4

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GC HI Yield Inc-Cls A MDLS AUD H OT CYM 09/25 AUD 9.21 8.3 10.8 15.1

GC HI Yield Inc-Cls A MDLS CAD H OT CYM 09/25 CAD 9.29 7.5 9.8 13.7

GC HI Yield Inc-Cls A MDLS NZD H OT CYM 09/25 NZD 9.58 8.7 11.4 15.7

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GC HI Yield Inc-Cls P USD Accsh OT CYM 09/25 USD 10.34 8.0 10.3 14.0

GC HI Yield Inc-Cls P USD MDis sh OT CYM 09/25 USD 9.27 8.0 10.3 14.0

GC HI Yield Inc-Cls A MDLS EUR H OT CYM 09/25 EUR 10.06 6.5 8.2 12.4

Hi-Div Stk Cts A RMDS H Acc OT HKG 09/25 OHN 12.06 25.9 19.3 15.5

## FINANCE & MARKETS



CHRISTOPHER GOODMAN/BLOOMBERG NEWS

# Bond Darlings: India, Indonesia

BY SAUMYA VAISHAMPAYAN

Investors are rushing into the bond markets of India and Indonesia, drawn by rich yields and the rosy growth prospects of countries that a few years ago were considered among the most vulnerable emerging markets.

The two Asian countries have together captured almost one-fifth of emerging-market bond net inflows this year through August, according to data from the Institute of International Finance, a trade group.

Prices of government bonds in both countries have rallied in recent months. That has brought yields down, though they remain higher than those for equivalent bonds in the U.S. and Europe. The yield on India's 10-year government bonds has fallen to 6.61% from 6.71% six months ago, when more than \$1 billion in net flows started pouring into the country's debt market. Yields fall when bond prices rise.

In Indonesia, the 10-year bond yield has fallen to 6.310%

from 7.094% in the past six months. That yield was nearly 8% at the end of 2016, following heavy outflows from emerging markets after Donald Trump won the U.S. election.

As with any popular trade, the worry is that the first sign of trouble could send investors running, especially in countries where they hold sizable bets. Such shocks could come from a faster-than-expected pace of U.S. interest-rate increases, or a slowdown in Chinese growth, analysts say.

"When volatility in the market comes back, those are positions that are probably the first ones to be hit," said Roland Mieth, emerging-markets portfolio manager at Pacific Investment Management Co. in Singapore.

Four years ago, foreign investors started dumping Indian and Indonesian debt after the U.S. Federal Reserve indicated it would gradually wind down its bond-buying program.

Signs that U.S. and European central banks are preparing to reverse loose monetary

policy haven't triggered lasting routs in Indian and Indonesian bonds. Indian bond yields rose last Thursday after the Fed said it would start shrinking its bond portfolio, as expected.

One reason for investor steadiness is that long-term institutional investors are increasingly investing in Indian and Indonesian debt, as opposed to shorter-term investors like hedge funds, said Rob Subbaraman, chief economist, Asia ex-Japan at Nomura. Investors say they are also banking on the success of economic overhauls in both countries.

Nonresident investors bought a net \$2.72 billion of Indian sovereign and corporate debt in August—17% of total emerging-market bond inflows—according to the Institute of International Finance.

Those investors plowed a net \$907 million into Indonesian bonds last month. For the year, investors have poured a net \$20.2 billion and \$9.1 billion into Indian and Indonesian debt markets, respectively.

With the influx of cash, for-

ign ownership of rupiah-denominated Indonesian government bonds rose to 39.5% at the end of the second quarter, the highest in two years, according to data from the Asian Development Bank.

Foreign ownership of Indian bonds is low—4.2% as of July, according to ANZ—because of limits imposed by the country's central bank.

Ken Hu, chief investment officer for Asia-Pacific fixed income at Invesco in Hong Kong, says he has been participating in Indian government-bond auctions almost every week as he tried to add to his holdings of local-currency debt in the country.

He says efforts such as Indian Prime Minister Narendra Modi's goods-and-services tax, which replaced a complex system of state and local taxes with a type of value-added tax, and Indonesian President Joko Widodo's campaign to boost Indonesian manufacturing are reasons why he likes bonds in both countries.

—Jon Emont

contributed to this article.

## Tech Stocks Regain Strength in the U.S.

By MARINA FORCE  
AND MICHAEL WURSTHORN

U.S. stocks edged higher Tuesday, as gains in shares of technology companies helped major indexes rebound.

The Dow Jones Industrial Average rose 22 points, or 0.1%, to

22316, following its biggest decline since Sept. 5 on Monday. The S&P 500 added less than 0.1%, while the Nasdaq Composite rose less than 0.1%.

The stabilization came after tensions between North Korea and the U.S. sparked a pullback in U.S. stocks Monday. Without any new major geopolitical developments on Tuesday, investors appeared to be taking advantage of the recent declines, analysts said.

"Investors are looking to pick up things that have fallen down a little bit," said Chris Wolfe, chief investment officer at First Republic Bank's wealth-management arm. With bond yields still relatively low, "you get into a place where equities are the only game in town," he added.

Shares of tech companies in the S&P 500, which have been big contributors to this year's gains in the U.S. stock market, were up 0.2% in late morning in New York after slumping on Monday.

Software maker Red Hat rose 2.8%, putting it among the index's biggest gainers after it reported higher-than-expected profit and revenue for the latest quarter.

The chip maker Nvidia added 1% and shares of Apple, which have tumbled this month, gained 1.1%.

In Asia, shares of technology companies weakened as investors responded to the losses in the U.S. on Monday.

South Korea's Kospi closed down 0.3%, with Samsung Electronics off 3.7%. Japan's Nikkei Stock Average moved 0.3% lower, with tech stocks also facing selling pressure.

Sony Corp. and Nintendo Co. were down 2% and 1.9%, respectively. Hong Kong's Hang Seng Index finished unchanged, and the Shanghai Composite Index added 0.1%.

Investors pulled back from assets they consider to be relatively safe. Gold prices fell 0.6% Tuesday and the dollar rose 0.4% against the Japanese yen, which tends to rise when markets slide.

Tensions with North Korea had ramped up Monday after the foreign minister warned the country would shoot down U.S. warplanes even if they were outside its airspace. White House officials dismissed talk of war.

—Kenan Machado contributed to this article.



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## MARKETS DIGEST

### Nikkei 225 Index

**20330.19** ▼67.39, or 0.33%

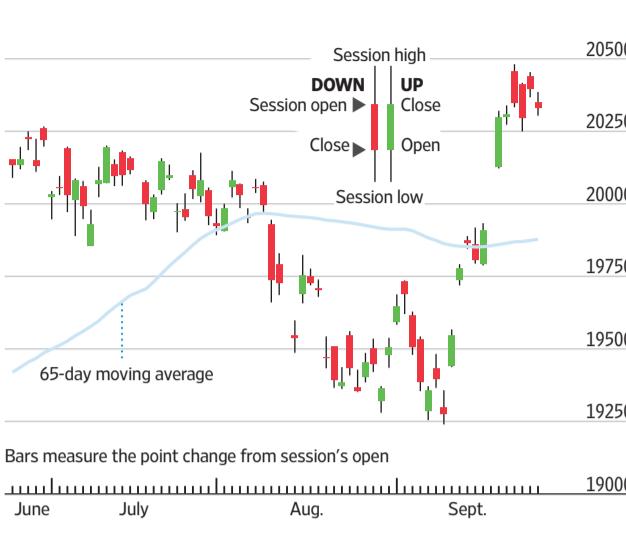
High, low, open and close for each trading day of the past three months.

Year-to-date  
52-wk high/low  
All-time high

20397.58  
16251.54  
38915.87

12/29/89

▲ 6.36%



Bars measure the point change from session's open

June July Aug. Sept.

19000 19250 19500 19750 20000 20250 20500

### STOXX 600 Index

**384.03** ▲ 0.13, or 0.03%

High, low, open and close for each trading day of the past three months.

Year-to-date  
52-wk high/low  
All-time high

396.45  
328.80  
414.06

4/15/15

▲ 6.26%



June July Aug. Sept.

360 370 375 380 385 390

### S&P 500 Index

**2498.97** ▲ 2.31, or 0.09%

High, low, open and close for each trading day of the past three months.

Year-to-date  
52-wk high/low  
All-time high

2425.24  
2508.24  
09/20/17

Trailing P/E ratio  
P/E estimate  
Dividend yield

24.25  
19.14  
1.99

24.81  
18.43  
2.13

All-time high: 2508.24, 09/20/17

Data as of 12 p.m. New York time

Last Year ago

Trailing P/E ratio  
P/E estimate  
Dividend yield

24.25  
19.14  
1.99

24.81  
18.43  
2.13

All-time high: 2508.24, 09/20/17



June July Aug. Sept.

2375 2400 2425 2450 2475 2500 2525

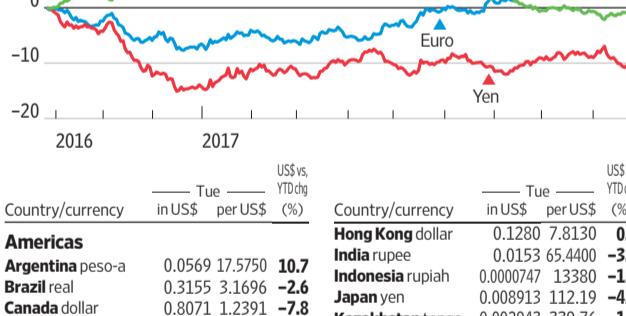
### International Stock Indexes

Data as of 12 p.m. New York time

Region/Country	Index	Close	Net Chg	% chg	52-Week Range	Low	Close	High	YTD % chg
<b>World</b>	<b>The Global Dow</b>	2891.93	-7.90	<b>-0.27</b>	2386.93	2910.53	14.4		
	<b>MSCI EAFE</b>	1956.72	-13.50	<b>-0.69</b>	1614.17	1981.49	14.0		
	<b>MSCI EM USD</b>	1080.60	-7.66	<b>-0.70</b>	838.96	1112.92	36.1		
<b>Americas</b>	<b>DJ Americas</b>	603.62	0.24	<b>0.04</b>	503.44	606.05	11.7		
Brazil	<b>Sao Paulo Bovespa</b>	74768.16	324.69	<b>0.44</b>	56828.56	76419.58	24.1		
Canada	<b>S&amp;P/TSX Comp</b>	15477.20	-39.03	<b>-0.25</b>	14468.03	15943.09	1.2		
Mexico	<b>IPC All-Share</b>	50362.03	-6.14	<b>-0.01</b>	43998.98	51772.37	10.3		
Chile	<b>Santiago IPSA</b>	3997.36	3.06	<b>0.08</b>	3120.87	4023.41	24.0		
<b>U.S.</b>	<b>DJIA</b>	22303.12	7.03	<b>0.03</b>	17883.56	22419.51	12.9		
	<b>Nasdaq Composite</b>	6381.61	11.02	<b>0.17</b>	5034.41	6477.77	18.5		
	<b>S&amp;P 500</b>	2498.97	2.31	<b>0.09</b>	2083.79	2508.85	11.6		
	<b>CBOE Volatility</b>	10.41	0.20	<b>1.96</b>	8.84	23.01	-25.9		
<b>EMEA</b>	<b>Stoxx Europe 600</b>	384.03	0.13	<b>0.03</b>	328.80	396.45	6.3		
	<b>Stoxx Europe 50</b>	3142.25	5.57	<b>0.18</b>	2720.66	3279.71	4.4		
France	<b>CAC 40</b>	5268.76	1.63	<b>0.03</b>	4342.64	5442.10	8.4		
Germany	<b>DAX</b>	12605.20	10.39	<b>0.08</b>	10174.92	12951.54	9.8		
Greece	<b>ATG</b>	740.37	-2.12	<b>-0.29</b>	559.92	859.78	15.0		
Israel	<b>Tel Aviv</b>	1418.20	1.00	<b>0.07</b>	1346.71	1490.23	-3.6		
Italy	<b>FTSE MIB</b>	22430.65	41.08	<b>0.18</b>	15923.11	22613.48	16.6		
Netherlands	<b>AEX</b>	528.50	0.72	<b>0.14</b>	436.28	537.84	9.4		
Russia	<b>RTS Index</b>	1127.26	-3.28	<b>-0.29</b>	956.36	1196.99	-2.2		
Spain	<b>IBEX 35</b>	10189.60	-26.90	<b>-0.26</b>	8512.40	11184.40	9.0		
Switzerland	<b>Swiss Market</b>	9113.65	-26.82	<b>-0.29</b>	7585.56	9198.45	10.9		
South Africa	<b>Johannesburg All Share</b>	55070.38	-769.35	<b>-1.38</b>	48935.90	56896.89	8.7		
Turkey	<b>BIST 100</b>	103929.33	1659.16	<b>1.62</b>	71792.96	110530.75	33.0		
U.K.	<b>FTSE 100</b>	7285.74	-15.55	<b>-0.21</b>	6676.56	7598.99	2.0		
<b>Asia-Pacific</b>	<b>S&amp;P/ASX 200</b>	5671.00	-12.70	<b>-0.22</b>	5156.60	5956.50	0.1		
China	<b>Shanghai Composite</b>	3343.58	2.03	<b>0.06</b>	2987.86	3385.39	7.7		
Hong Kong	<b>Hang Seng</b>	27513.01	12.67	<b>0.05</b>	21574.76	2815.77	25.1		
India	<b>S&amp;P BSE Sensex</b>	31599.76	-26.87	<b>-0.08</b>	25765.14	32575.17	18.7		
Indonesia	<b>Jakarta Composite</b>	5863.96	-30.65	<b>-0.52</b>	5027.70	5915.36	10.7		
Japan	<b>Nikkei Stock Avg</b>	20330.19	-67.39	<b>-0.33</b>	16251.54	20397.58	6.4		
Malaysia	<b>Kuala Lumpur Composite</b>	1765.59	-3.55	<b>-0.20</b>	1616.64	1792.35	7.5		
New Zealand	<b>S&amp;P/NZX 50</b>	7887.18	17.42	<b>0.22</b>	6664.21	7887.18	14.6		
Philippines	<b>PSEI</b>	8170.14	-74.59	<b>-0.90</b>	6563.67	8294.14	19.4		
Singapore	<b>Straits Times</b>	3212.04	-3.87	<b>-0.12</b>	2787.27	3354.71	11.5		
South Korea	<b>Kospi</b>	2374.32	-6.08	<b>-0.26</b>	1958.38	2451.53	17.2		
Taiwan	<b>Weighted</b>	10257.02	-78.87	<b>-0.76</b>	8931.03	10631.57	10.8		
Thailand	<b>SET</b>	1669.75	2.16	<b>0.13</b>	1406.18	1672.59	8.2		

### Currencies

Yen, euro vs. dollar; dollar vs. major U.S. trading partners



US\$ vs. in US\$ per US\$ (%)

Country/currency in US\$ per US\$ (%)

London close on Sept. 26

US\$ vs. in US\$ per US\$ (%)

Country/currency in US\$ per US\$ (%)

US\$ vs. in US\$ per US\$ (%)

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## THE PROPERTY REPORT

# Warehouses Score Big on E-Commerce

Companies such as Amazon seek space near cities to facilitate quick deliveries

BY ESTHER FUNG

E-commerce is setting off a scramble for industrial real estate near urban centers, giving landlords of once unglamorous properties a chance to push up rents to record levels.

Amazon.com Inc. and other online retailers, as well as fulfillment companies such as FedEx Corp., increasingly are seeking out "last-mile" locations in urban areas to feed consumer demand for ever-faster delivery of purchases.

That, in turn, is giving landlords of such facilities pricing power they never have enjoyed before.

On average, U.S. industrial rents stood at a record \$5.35 per square foot in the second quarter, up from \$5.25 in the first quarter, according to data from the real-estate services firm JLL.

A well-located last-mile facility "has the functional equivalent of a high-end retail store," said Hamid Moghadam, chairman and chief executive officer of the industrial real estate investment trust Prologis Inc. Such facilities are productive for the tenant and re-

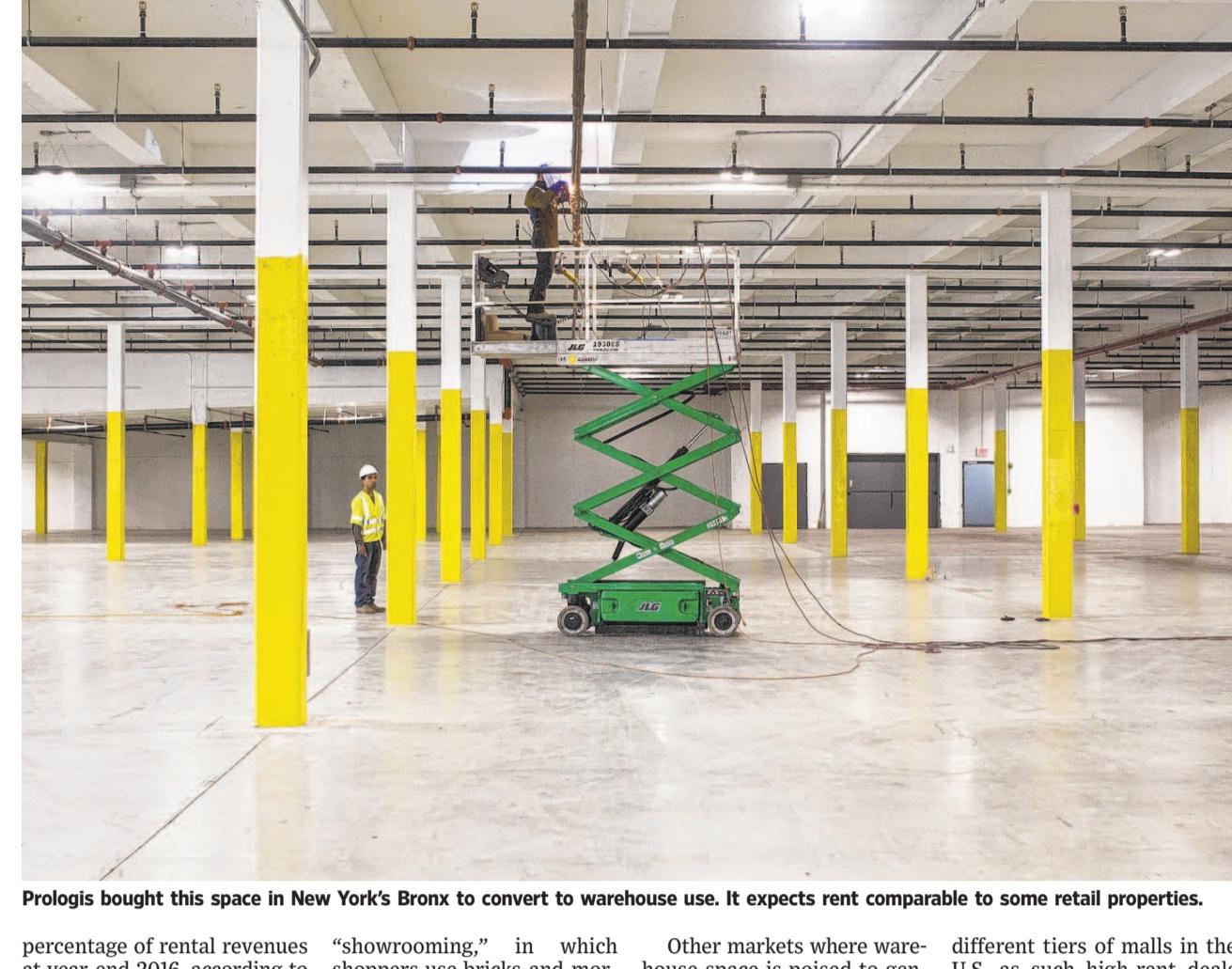
duce transportation and labor costs.

But they also are scarce, prompting some landlords to get creative. Prologis, a San Francisco-based REIT, purchased the old ABC Carpet building in the New York City borough of the Bronx earlier this year to convert to warehouse space. It expects to get rents in the low-\$20-per-square-foot range, which would be comparable to some office and retail asking rents in the area.

When a company is shipping to individual customers rather than in bulk to stores, most costs are in transportation and labor, and reducing them is a priority, said Eric Frankel, an analyst at the real-estate research firm Green Street Advisors. Warehouse rent, by contrast, represents just 5% or so of costs in a supply chain.

"If you think about sales productivity across the entire supply chain, paying a high rent is not a big deal," said Mr. Frankel.

Modest levels of new warehouse supply are coming onto the market at a time when some e-commerce companies are expanding rapidly. Amazon is now the largest tenant of Prologis, Duke Realty Corp., Jones Lang LaSalle Income Property Trust and DCT Industrial Trust in terms of



Prologis bought this space in New York's Bronx to convert to warehouse use. It expects rent comparable to some retail properties.

percentage of rental revenues at year-end 2016, according to S&P Global Market Intelligence.

"Consumer purchasing behavior and the rise of e-commerce have shifted in a way that is extremely beneficial for industrial real estate. Proximity of warehouses is more important than ever, and we aim to own properties closest to transportation and consumers," said Phil Hawkins, president and chief executive officer of DCT in a statement.

Some retailers, meanwhile, are embracing the practice of

"showrooming," in which shoppers use bricks-and-mortar retail locations to check out goods they later purchase online. Nordstrom Inc. earlier this month said it is opening a store in West Hollywood, Calif., where shoppers can try on clothes, but the outlet won't carry inventory. Instead, the merchandise would be retrieved from other nearby Nordstrom locations or through its website.

If the concept becomes more commonplace, it would fuel more demand for more logistics space and services, analysts said.

Other markets where warehouse space is poised to generate premium rents include Seattle, San Francisco, parts of Los Angeles, Chicago and possibly Miami, said Mr. Moghadam.

Warehouses commanding rents near those of office and retail space are highly profitable for landlords in part because the build-outs—the process of equipping the space for occupancy—are cheaper than for office or retail properties, but analysts said it still remains too early for the emergence of a form of classification of warehouses akin to the

different tiers of malls in the U.S. as such high-rent deals aren't commonplace.

"It's too small a piece of the portfolio," said Steve Sakwa, an analyst at Evercore ISI, noting that such leasing deals are still few and aren't going to redefine Prologis's huge portfolio any time soon.

Mr. Sakwa noted that equity investors have already been assigning higher valuations to industrial REITs, with some of their stock prices up 30% in the past year.

◆ Heard: Alibaba deal takes deliveries into account..... B10

## Builder Lures Millennials With Student-Loan Help

BY LAURA KUSISTO

Student-loan debt has been an obstacle for many potential home buyers. Now Lennar Corp. is trying to do something about it.

A subsidiary called Eagle Home Mortgage planned to introduce on Tuesday a program under which it will pay off a significant chunk of the student loan of a borrower who purchases a home from Miami-based Lennar.

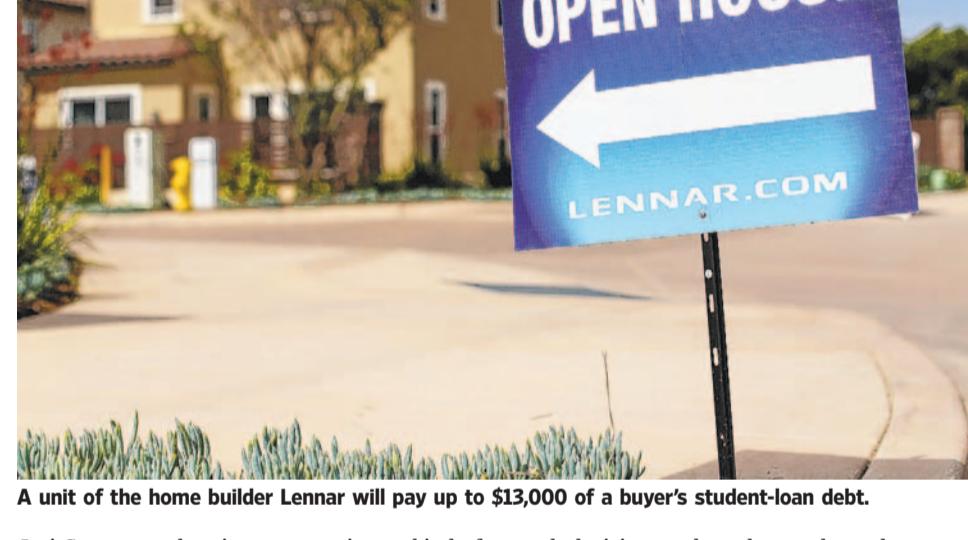
Housing experts said other builders are likely to look to mimic the program, which could help lure more of the critical first-time-buyer segment into home purchases.

Such programs come with the risk, however, that the incentive drives up the price of new homes.

"Obviously there's a benefit to bringing more people into the home buying market. We're trying to design something here that supports affordability and creates that path to homeownership," said Doug Cropsey, a senior vice president at Eagle.

Eagle will make a payment to a buyer's student loans of as much as 3% of the purchase price, up to \$13,000. The contribution doesn't directly increase the purchase price of the home or add to the balance of the loan.

Christopher Oquendo and



A unit of the home builder Lennar will pay up to \$13,000 of a buyer's student-loan debt.

Jeri Coate are planning to use the program to virtually eliminate their student debt. The couple, who are in their mid-30s, wanted a bigger house but were reluctant to take on more debt. Ms. Coate, who works in a notary's office, still had outstanding student loans from training she had done to be a medical administrative assistant and the couple had other unpaid bills as well.

"We needed to get something bigger and upgrade but

it was kind of a rough decision to make considering our status with bills and all," Mr. Oquendo said.

The couple are now in the process of closing on a Lennar home in the city of La Marque, Texas, about 50 miles south of Houston, with two more bedrooms than they had before.

The evidence is mixed as to whether student debt is acting as a meaningful barrier to homeownership. Most research suggests there is a much higher barrier for people

who take out large loans and don't finish their degrees than there is for those with debt who earn a degree.

Housing experts say that at minimum Lennar's program could help eliminate the significant psychological barriers that many feel to buying a home and taking on hundreds of thousands of dollars of more debt if they are already deep in the hole after college.

A study that was to be released Tuesday by NeighborWorks America, a nonprofit

that helps promote access to homeownership, found that one in four millennials said they have had to delay buying a home because of student debt. Half of millennials said they worry about their student loans all or most of the time.

Consumer advocates are wary the program sounds too good to be true. They point to builder incentive programs during the last boom that helped inflate the price of new homes. Those programs allowed sellers to pay a portion of the buyers' down payment, which in turn tended to drive up the price that people could afford to pay for their homes.

"We've had bad experiences when home sellers get involved in mortgages, particularly innovative mortgages," said Dan Immergluck, a professor at the Urban Studies Institute at Georgia State University who studies the housing market, mortgage finance and foreclosures. Mr. Immergluck said if the program drives up home prices, buyers without student loans will end up sharing the burden with those who do.

Mortgage giant Fannie Mae has agreed to back the loans and will closely monitor the program to ensure that the value of student-loan payment isn't included in appraisals of the home, which in turn can help drive up values.

"This is not without risk," said Jonathan Lawless, vice president of customer solutions at Fannie Mae. "Builders always want to provide more money and incentives for people to buy their homes. It has the potential to start distorting values."

Mr. Lawless said Fannie is cautiously embracing new mortgage products that aim to make homeownership accessible for millennials. Fannie is also backing loans with down-payment assistance from Loftium, a Seattle-based company that will pay for up to \$50,000 of the buyers' down payment if they agree to continuously rent out a room in their home on Airbnb for one to three years.

One other perk for borrowers: Student-loan debt can't be discharged in bankruptcy, so getting rid of it early is preferable to paying it back slowly.

But Mr. Lawless cautioned that efforts to make credit more easily available to millennials could end up exacerbating the shortage of homes if Fannie and others also can't come up with more ways to incentivize builders to build more starter homes.

"As we pivot to next year, I think the thing that the industry needs to be careful about is we can't increase access and demand without increasing supply," he said.

## Manhattan's Garment District Is Torn Over Zoning

BY KEIKO MORRIS

Jobs in the Garment District in New York's Midtown have grown in sectors from food services to professional business services during the past year, while office rents have increased and the neighborhood's rapidly multiplying hotels boast some of the highest occupancy rates in Manhattan, a new study shows.

And yet the neighborhood's economic growth is being held back, according to officials with the Garment District Alliance, the authors of the study.

They blame a 30-year-old zoning restriction that preserves space for the apparel manufacturing sector, which continues to decline. Apparel-related production jobs fell to 4% of the neighborhood's private employment last year from 5% in 2015, according to the study.

"You have a Midtown Manhattan location, the best regional transportation any-

where in the city of New York, and class B and class C office stock that is highly desired by the business-services sector and is technically held off the market," said Barbara Blair, president of the Garment District Alliance, a business improvement district funded by property owners and businesses. "We want the restrictions lifted, period."

A controversial proposal announced earlier this year by the New York City Economic Development Corp. to end zoning protections within portions of the Midtown neighborhood is on hold as the city studies a set of recommenda-

tions released in August by a committee of Garment District manufacturers, property owners and fashion-industry businesses.

City officials formed the committee after the proposal raised concerns in the fashion sector that the move could wipe out a centrally located manufacturing network.

One of the committee's critical recommendations ties any elimination of the preservation requirements to some mechanism providing long-term, affordable garment-manufacturing space in the neighborhood.

Many apparel-related businesses said the lifting of the zoning restriction without a strong program in place to help manufacturers stay in the district would accelerate their decline and threaten the city's broader fashion industry, a fixture of New York's identity and a magnet for creative workers.

"We continue to believe that before we change the zoning

68%

Decline from 2000 to 2016 in jobs related to apparel manufacturing



Apparel wholesale jobs decreased slightly, to 14,285, in Manhattan's Garment District between 2000 and 2016, a study showed.



# U.S. COLLEGE RANKINGS

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THE WALL STREET JOURNAL.

Wednesday, September 27, 2017 | R1

## Harvard Takes Top Honors



Harvard University got high marks for the financial success of its graduates and its academic resources.

BROOKS KRAFT/CORBIS/GETTY IMAGES

In the Wall Street Journal/Times Higher Education ranking of U.S. colleges, the Ivies snagged six of the top 10 spots

BY DOUGLAS BELKIN  
AND MELISSA KORN

**SILICON VALLEY IS RISING.** Mobile Americans are flocking to the Sunbelt. But most of the best colleges and universities in the U.S. remain rooted in the Northeast.

Harvard University topped this year's Wall Street Journal/Times Higher Education College Rankings, and about a mile down the street in Cambridge, Mass., the Massachusetts Institute of Technology earned a tie for third place. Columbia, Yale, the University of Pennsylvania, Princeton and Cornell—all of which sit within 400 miles of Harvard Square—took five of the top 10 spots. Stanford, Duke and the California Institute of Technology rounded out the top 10.

"There are a lot of perceptions of Harvard you have before you arrive," says Chris Cruz, who left his home in California to attend school there and graduated last year. "At least for me Harvard exceeded all of my expectations."

The WSJ/THE rankings emphasize how well a college will prepare students for life after graduation. To that end, the overall ranking is based on 15 factors across four categories: Forty percent of each school's overall score comes from student outcomes, including a measure of graduate salaries, 30% from the school's academic resources, 20% from how well it engages its students and 10% from the diversity of its students and staff.

The rankings reveal the might of the Ivy League as well as some hidden gems. Who knew that—based on students' views on internships—students at Endicott College in Beverly, Mass., feel more prepared to enter the world of work than their peers at MIT?

The rankings also show that those schools at the top boast a range of solid scores. Har-

vard is Harvard not only because its graduates are among the nation's leaders in terms of their financial outcomes, but also because it has the wealth to support a fairly diverse student population and top-notch faculty. Mr. Cruz, who studied government and economics, says that at one point half of his professors had served in former presidential administrations.

The California Institute of Technology, seventh overall, was No. 1 in resources and boasts a student-to-faculty ratio of 3 to 1, tops in the nation alongside MIT. Stanford, which tied with MIT for third overall, was sixth in outcomes and 24th in how engaged students perceived themselves to be with their education.

### State of state schools

The rankings also reveal some relative bargains at public universities.

A handful of elite public schools in the U.S. remain competitive despite receiving limited funds from their states. Still, the best private schools are simply wealthier, and they are spending that money to buy things that students value, such as more professors and academic support services.

The top-ranked public institution, the University of California, Los Angeles, came in at No. 25, between the University of Notre Dame and Pomona College. The University of Michigan reached No. 27, while the University of North Carolina-Chapel Hill rounded out the top three public universities at No. 33. On the other end of the spectrum, 80 of the 100 lowest-ranked schools overall were public institutions.

"The fact that there are only two publics in the top 30 is part of the narrative that there is a crisis in public higher education," says Phil Baty, Times Higher Education rankings editor. "We are seeing some real challenges in terms

of resources, and I think this kind of inequality, this defunding of great American public schools, is a serious issue."

That trend is particularly noteworthy because as the nation's collegiate student body is becoming more racially and socioeconomically diverse, it is the public schools—and the California state system in particular—that are absorbing most of those students. Seven of the top 12 schools in the country for diversity are public schools in California.

"It's an incredible story of access," says Mr. Baty. "But again, the schools with the greatest access are starved of funds. The privates are less inclusive."

Top-flight public schools still serve their students well. There were 27 public institutions in the top 100 in terms of student outcomes.

### Earning power

The WSJ/THE rankings determine student outcomes in part by using data like family income and SAT scores to predict how much money a student would earn 10 years after he or she enters school. The rankings then compare those earnings to the actual salary of graduates. Only the salaries of stu-

dents who borrowed from the federal government are included in these calculations.

The Massachusetts College of Pharmacy and Health Sciences tops the list of schools that elevate their graduates to higher incomes than they might otherwise earn. The University of Colorado, Denver is second, with Georgetown University, Harvard, and Washington and Lee University rounding out the top five.

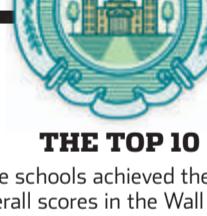
That same metric penalizes some of the nation's elite liberal-arts colleges, where the data indicate that an education actually bends earning trajectories downward.

For instance, recent graduates of Hampshire College, among many others, are earning less than they otherwise might have if not for their educational choices, the data show.

"Ranking colleges by alumni earnings penalizes colleges for alums who

choose public service, the arts, nonprofits, education, social science and graduate school," says Hampshire spokesman John Courtmanche. It also discounts "the value of young entrepreneurs who take risks early in their ca-

Please turn to the next page



### THE TOP 10

These schools achieved the highest overall scores in the Wall Street Journal/Times Higher Education College Rankings

1. Harvard University
2. Columbia University
3. Massachusetts Institute of Technology
4. Stanford University
5. Duke University
6. Yale University
7. California Institute of Technology
8. University of Pennsylvania
9. Princeton University
10. Cornell University

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.

(CONS: PETER & MARIA HOY)



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California boasts four campuses among the top 10 public colleges

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## JOURNAL REPORT | U.S. COLLEGE RANKINGS

# What Our Rankings Emphasize—and Why

BY DAVE PETTIT

Selecting the right college is hard work. There are so many factors to consider and so many schools from which to choose. The Wall Street Journal/Times Higher Education College Rankings are designed to organize all of that information and put it into perspective.

Parents and students set out to find schools that offer excellence, foster intellectual development, provide engaging teaching and leave graduates on a firm financial footing. Now in their second year, the WSJ/THE rankings are built on these criteria.

Some college rankings focus on the selectivity of schools or on just certain dimensions of the college search. The WSJ/THE rankings examine a broad range of considerations that confront parents and students, and put particular emphasis on financial considerations.

The outcomes graduates can expect—including the salaries they will earn—and the academic resources of institutions are given the most weight. This year, the rankings take into account the debt burden students may take on to finance their education by evaluating graduates' ability to repay their loans.

Beyond finances, the WSJ/THE rankings use a survey of students to evaluate how well schools create engagement, both with instructors and among students. The rankings also look at the campus environment, focusing on racial, ethnic and financial diversity. In all, 15 measures go into calculating the overall ranking. For a complete explanation of the methodology, go to [on.wsj.com/college-ranking-methodology](http://on.wsj.com/college-ranking-methodology).

With all of that, the Journal and its partner, Times Higher Education, recognize that different people have different goals. For this year, the Journal has developed a tool that allows parents and students to create customized rankings by adjusting the weighting of the four main criteria that go into calculating the overall ranking: student outcomes, academic resources, student engagement and the academic environment.

So, for example, if one's primary goal is less about finding a top job and more about the quality of teaching and making connections with faculty and fellow students, the rankings can be adjusted. If one is most interested in a school with a wealth of academic resources and a highly diverse campus environment, the rankings can be recalculated for that, too. Go to [WSJ.com/collegerankings](http://WSJ.com/collegerankings) to use the tool.

Finding the college that is the best fit is a tricky, personal decision. The goal of the WSJ/THE college rankings is to help give you the perspective you need to weigh your options.

Mr. Pettit is a Wall Street Journal editor in New York. He can be reached at [dave.pettit@wsj.com](mailto:dave.pettit@wsj.com).

## Harvard Takes the Top Spot

Continued from the prior page  
reer that may ultimately lead to big rewards for them and society, maybe 15 years or 30 years after graduation."

### Sense of engagement

A survey conducted as part of the rankings asked 109,000 students a series of seven questions to determine the extent to which they felt engaged in their education.

Topics included students' experiences with their professors, their level of collaboration with classmates, if they were pushed to think critically, and whether they would recommend their school to others.

Four of the top five schools for engagement have religious affiliations. Dordt College in Sioux Center, Iowa, came out on top.

Though small liberal-arts colleges like Dordt, with about 1,440 undergraduate students, generally scored well in engagement, size wasn't a proxy for performance. Texas Christian University came in at No. 2, with Texas A&M University, Cedarville University and Brigham Young University, Provo all tied for third. Those four schools' student bodies range from about 3,300 to 43,000 undergraduates.

The survey also asked students three questions that weren't taken into consideration in the rankings, including whether students would choose their school again. Highest marks again went to schools with a religious affiliation, including The Master's University in Santa Clara, Calif., Lancaster Bible College and Brigham Young, Hawaii.

Schools that specialize in science, technology, engineering and math also scored well, including Michigan Technological University and the Rose-Hulman Institute of Technology.

The WSJ/THE rankings aren't intended to be a definitive guide for all prospective students. The best school for an aspiring physicist who prefers intimate classes likely isn't the best one for a varsity athlete pursuing a business degree and interested in the Greek scene.

Rather, this list is best used as a jumping-off point for families as

### BEHIND THE RANKINGS

For a complete explanation of the methodology for the Wall Street Journal/Times Higher Education College Rankings, go to <http://on.wsj.com/college-ranking-methodology>.

The Journal Report welcomes your comments—by mail, fax or email. Letters should be addressed to Lawrence Rout, The Wall Street Journal, 4300 Route 1 North, South Brunswick, N.J. 08852. The fax number is 609-520-7256, and the email address is [reports@wsj.com](mailto:reports@wsj.com).



### TOP SCHOOLS FOR RESOURCES

The schools that ranked highest for resources, based on academic spending, student-faculty ratios and research output

1. California Institute of Technology
2. Harvard University
3. Massachusetts Institute of Technology
4. Princeton University
5. Northwestern University
6. Rice University
7. Columbia University
8. University of Pennsylvania
9. University of Chicago
10. Brown University

Source: Wall Street Journal/Times Higher Education College Rankings  
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they consider their options. The rankings offer insight into a number of elements that should be taken into account during the college search process, from tuition cost and schools' financial strength to opportunities for critical thinking and graduates' career outcomes.

Times Higher Education is a unit of TES Global Ltd., a London company owned by private-equity firm TPG Capital since 2013. Times Higher Education was sold in 2005 by News Corp, the parent of The Wall Street Journal owner Dow Jones & Co. Times Higher Education has a business relationship with The Wall Street Journal tied to development of these college rankings.

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## 2018 COLLEGE RANKINGS

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# This Is What Counts in the End

Where schools rank on graduation rates, income and more

BY DOUGLAS BELKIN

WHETHER STUDENTS go to school primarily to find a calling, read the Great Books or learn the skills to earn a lot of money, the degrees they earn have a substantial impact on their financial future.

The amount of debt accrued over the course of an education—and the student's ability to pay it off—affects everything from how healthy and happy graduates will be to what professional choices they make, says Brandon Busteed, executive director of education and workforce development at Gallup.

"There are two types of [college] consumers, those who care very much about the economic value add and those who say they are there to make a contribution to society," Mr. Busteed says. "Either way, your financial outcomes matter."

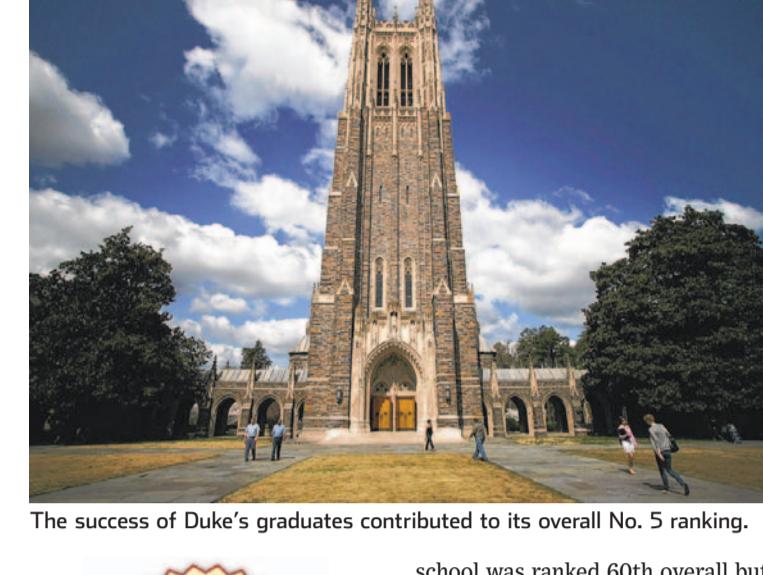
That's why the Wall Street Journal/Times Higher Education College Rankings weight outcomes as the most important factor in the overall ranking. Outcome scores are derived from graduation rates, income after graduation, debt repayment and academic reputation. The outcome evaluation is 40% of a school's total score.

Our value-added measure of salaries was calculated by comparing predicted salaries—based on factors including students' SAT scores, family income and an institution's population of first-generation college students—and the actual outcomes for recent graduates. We used a Brookings Institution analysis of value-added college outcomes as a guide on this measure, recognizing that high graduate salaries alone don't indicate school success.

Harvard University and Duke University, first and fifth, respectively, in the overall ranking, tied for the top spot in outcomes. And all of the schools ranked in the top 10 for outcomes were ranked in the top 11 overall except for one: Williams College, tied for ninth in outcomes and ranked 22nd overall. But several schools had outcome scores that were well above their overall rank.

One example is Brigham Young University, Provo. It was 113th in the overall ranking, but 40th in outcomes thanks to a high graduation rate and average annual earnings for recent graduates that are \$12,000 more than predicted.

Jodi Chowen, BYU's director of career services, says her students land jobs because of a range of skills. "The feedback we hear from employees is that they have developed



The success of Duke's graduates contributed to its overall No. 5 ranking.



### TOP SCHOOLS FOR STUDENT OUTCOMES

The schools ranked highest for graduation rate, reputation and student financial outcomes

1. Duke University
2. Harvard University
3. Yale University
4. Princeton University
5. Columbia University
6. Stanford University
7. California Institute of Technology
8. University of Pennsylvania
9. Massachusetts Institute of Technology
10. University of Chicago

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.

school was ranked 60th overall but 33rd on outcomes. Recent grads earned \$4,550 more a year than predicted.

"I think Jesuit values are great career values," says Joe DuPont, associate vice president for student affairs at BC. "Jesuits champion reflection, exploration and action. That fits well into any paradigm, including the world of work."

In contrast, rankings of some elite liberal-arts colleges were dragged down by their outcome scores.

Defenders of those institutions say the disproportionate number of students who attend graduate school, go into the arts or education or get government jobs work against them.

Swarthmore College graduates fell \$16,750 short of their predicted annual salary. The school ranked 30th overall, but the earnings shortfall was among the most severe in the country. Swarthmore ranked 52nd in outcomes.

Gregory Brown, Swarthmore's vice president for finance, says because his school's admissions are need-blind, the pool of students who take federal financial aid is very small. The predicted salaries used in the rankings take into account only the salaries of students who borrowed from the federal government.

"Because our sample size is very small, one deviation can really impact our numbers," he says. "I would caution parents that while these rankings offer some helpful information, not one of them is perfect."

Mr. Belkin is a Wall Street Journal reporter in Chicago. He can be reached at [doug.belkin@wsj.com](mailto:doug.belkin@wsj.com).

## When It Comes to Diversity, Public Schools Reign

BY MELISSA KORN

PRESTIGIOUS PRIVATE colleges and universities have deep pockets, fancy buildings and renowned faculty. But public schools have something they dearly want: diversity.

Drawing students from their immediate areas and appealing to low-income and first-generation college students, state-backed institutions in major cities seem to be most successful at bringing in a racially and socioeconomically diverse student body.

As a result, they dominate the Wall Street Journal/Times Higher Education College Rankings on measures of diversity.

The WSJ/THE rankings measure school environment based on factors including the percentage of Pell Grant recipients—a proxy for those from low-income backgrounds—as well as the diversity of students and staff, how many students are the first in their families to attend college and the share of the student body that comes from abroad.

Academics say class discussions often become richer when students from different backgrounds engage on topics like religion and politics. And at a time of heightened political polarization and economic stratification, many say there could be long-term societal value in forcing those individuals to interact.

Nine of the top 11 schools in terms of environment in this year's rankings are in California or Florida; eight are public institutions. Two schools from the City University of New York, Baruch College and City College, are in that top echelon. Ten campuses from the California State University system made the top 27 on environment.

Outcomes lag behind

La Sierra University in Riverside, Calif., topped the diversity list

thanks to its location in one of the most diverse regions of the nation's most diverse state. More than 46% of the Seventh-day Adventist school's undergraduate students are Hispanic, one in nine come from overseas and about 43% receive Pell Grants.

La Sierra has such global appeal in part because of a large international network of Seventh-day Adventist schools. Graduates from those institutions flock to a similarly affiliated college setting, says provost Joy Fehr.

California State University, Northridge, took the No. 2 spot for environment. More than 40% of undergraduate students at CSU-Northridge identified as Hispanic in fall 2015, the latest figures available on the school's website, and more than half are low-income.

One challenge for schools with socioeconomically diverse student populations is that many of those students, especially those who are the first in their families to attend college, require additional academic and social support to get to the finish line. Whether it's because they weren't well prepared by their high schools, have constant money concerns or face obstacles in assimilating to college life, graduation rates for such students tend to lag behind those for wealthy, white students.

La Sierra didn't crack the top 900 on outcomes, which measure things like earnings, loan defaults and graduation rates. Federal data show that fewer than half of its full-time students graduate in six years or less.

Dr. Fehr says a number of students transfer out before graduation to pursue health-sciences degrees at other schools, which depresses La Sierra's published graduation rate. The school has been using money from a federal grant to offer academic bridge programs to incoming students and



### TOP SCHOOLS FOR ENVIRONMENT

These schools achieved the highest scores for diversity

1. La Sierra University
2. California State University, Northridge
3. Johnson & Wales University, North Miami
4. University of California, Irvine
5. San Francisco State University
6. Barry University
7. California State University, East Bay
8. California State University, Long Beach

CUNY Bernard M. Baruch College

CUNY City College of New York

University of California, Los Angeles

Source: Wall Street Journal/Times Higher Education College Rankings

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provide more robust advising services, she says.

Meanwhile, Cal State Northridge was No. 547 on outcomes, while the University of California, Irvine, tied for third in environment, was No. 203 on outcomes.

### Battling perceptions

The wealthiest schools, as measured by the WSJ/THE resource ranking, often have less diverse student bodies—though they are

Please turn to the next page

## JOURNAL REPORT | U.S. COLLEGE RANKINGS

### Diversity

*Continued from the prior page*  
trying to change that.

Thirty institutions banded together earlier this year to promote the American Talent Initiative, a collaborative effort to expand access for low-income students. The program has since expanded to include more than 80 schools, including public flagships, Ivy League institutions and elite liberal-arts schools such as Williams College and Swarthmore College. But many still have a long way to go.

Stanford, No. 3 in the overall ranking and No. 15 for resources, and a member of the American Talent Initiative, came in at 54th on environment. And New York University, also a member, came in at No. 29 overall and No. 42 on resources. It landed at No. 71 on environment.

"We are continually battling perceptions among the nation's brightest students that they don't think they can afford to come here," says Stanford spokeswoman Lisa Lapin, noting that she wasn't surprised by the school's environment ranking when marked alongside public universities.

She says Stanford's generous financial-aid policies—including free tuition, room and board for students with family income below \$65,000—actually make it more affordable than some public institutions.

Ms. Lapin says first-generation college students consistently make up between 15% and 18% of each undergraduate class, and the school has been working to diversify its faculty ranks in terms of gender, race and ethnicity, as well.

NYU spokesman John Beckman points out that the school fares well on environment among private colleges that are ranked in the top 30 overall, behind only Stanford, Columbia University and Pomona College.

The school's share of black and Hispanic degree-seeking undergraduates rose to 18.6% last fall from 14.3% in 2012, he says, and nearly one-quarter of first-year students receive Pell grants. He added that institutional aid for Pell recipients has increased significantly in recent years, and loan burdens have declined by about 30% for all NYU students since 2011.

**Ms. Korn is a staff reporter for The Wall Street Journal in New York. Email her at melissa.korn@wsj.com.**

# The Rankings' Biggest Surprises

Smaller schools excelled in some areas where the top schools lagged behind

BY TAWNELL D. HOBBS

MANY FAMILIAR NAMES ended up at the top of the Wall Street Journal/Times Higher Education College Rankings, but some smaller schools outdid their better-known rivals in areas that might seem critical to some students shopping for a place to spend the next four years.

The top schools in our rankings—Harvard, Columbia University, the Massachusetts Institute of Technology, Stanford University and Duke University—all did extremely well in the two areas that carry the most weight in the rankings: student outcomes and academic resources. Those areas consider measures such as graduation rates, academic reputation, funding spent per student and whether students exceed average-salary predictions.

But in other categories that don't carry as much weight overall, the big names didn't always fare as well.

#### Where small schools reign

Duke is the only one of the top five schools overall to come in with a top 10 ranking when students in a survey were asked if they would choose their school again.

The Master's University, a small Christian liberal-arts school in Santa Clarita, Calif., topped all comers in that category, despite not cracking the top 500 schools in the overall ranking.

"I don't think there's a better rating for us to be at the top of; it's how students feel their institution has prepared them for their lives," says Kory Welch, the school's chief marketing officer. "As a Christian university, our focus isn't only on academics but on a student's well-being."

None of the top five schools overall cracked the top 20 in the engagement category, which includes student interaction with faculty and whether the student would recommend the school. Dordt College, a small Christian university in Sioux Center, Iowa, ranked the highest for engagement, while coming in at No. 393 overall.

Similarly, none of the top five



JOEL BEAR / THE MASTER'S UNIVERSITY

The Master's University scored highest when students were asked if they would choose the same school again.

schools overall placed in the top 50 in the environment category. Environment includes measures of the diversity of students and staff and the proportion of international students.

La Sierra University, a small school in Riverside, Calif., affiliated with the Seventh-day Adventist church, garnered the top spot in the environment category, while ranking below 600th overall.

The rankings also considered a school's academic spending per student, adjusted for regional price differences. The top five overall schools were highly ranked in this area—ranging from \$57,430 at Harvard, 13th in this category, to \$100,730 at Stanford, in fifth place. But Washington University in St. Louis, ranked 11th overall, came in first in spending, at \$159,100 per student.

Provost Holden Thorp, the chief academic officer at Washington University in St. Louis, attributes some of the higher spending to small class sizes and an 8-to-1 student-to-faculty ratio.

"For generations, Washington University has shown that investing in our academics, in inspiring the leaders of tomorrow, is a most worthwhile endeavor and not just an 'expense' on a balance sheet," Dr. Thorp said in a statement.

#### Comparing rankings

In comparing the WSJ/THE listing to a recent ranking by U.S. News & World Report, similarities exist in the top 20 but also differences.

Princeton University is No. 1 in the U.S. News ranking of national universities but No. 9 in the WSJ/THE ranking, dragged down by its engagement rank of 533rd.

A Princeton spokesman says that at the university's opening exercises this month, university President Christopher Eisgruber encouraged the new class of students to engage with faculty and learn from them, but to also have their own views.

"We expect you to develop the ability to articulate your views clearly and cogently, to contend with and learn from competing

viewpoints, and to modify your opinions in light of new knowledge and understanding," Mr. Eisgruber told the students, according to a transcript.

Several schools, including Carnegie Mellon University, placed in the top 20 of the WSJ/THE list but not in the U.S. News ranking.

Carnegie Mellon, which came in at No. 20 in the WSJ/THE ranking and No. 25 on the U.S. News list, said in a statement that university rankings remain a subject of debate.

"Some rankings are designed purely for entertainment, little more than internet photo galleries. Others make a more serious effort at collecting information," the statement says. "Even where rankings do collect objective statistics such as test scores or costs, the choice of which factors to include in a ranking, and how those factors are weighted, remains subjective."

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## JOURNAL REPORT | U.S. COLLEGE RANKINGS

# Challenged in the Classroom—and Out

When it comes to feeling engaged, size and prestige don't really matter

BY MELISSA KORN

WHILE HIGH GRADUATE salaries and low loan-default rates are crucial measures of a school's value, so are less tangible outcomes such as how well students learn to challenge assumptions or whether they can tie abstract academic ideas to real-world applications.

That's why the Wall Street Journal/Times Higher Education College Rankings assign 20% of a school's total score to engagement, as measured by the breadth of academic options it offers and student insights on things such as whether they feel challenged in the classroom and would recommend the school.

What happens inside classrooms and libraries—how inspired students feel by their peers and professors, if they have opportunities to think critically—matters in the intellectual maturation of young adults.

"A great university should be educating students. They should be prepared with life skills, but not necessarily just skills for their first job," says **University of Florida** President Kent Fuchs. (That school came in at No. 91 on engagement, tied with Pennsylvania State University, Drexel University, Syracuse University and many others.)

The engagement ranking is derived mainly from survey responses from current college and university students, comprising a total of more than 209,000 responses received in the past two years. A minimum of 50

responses were received in 2017 for each ranked school, with an average of 179 respondents over the two years. This year, schools had the option of distributing the surveys on behalf of Times Higher Education, in addition to THE soliciting responses from students independently.

Size and prestige don't make much difference in a school's success on the rankings' engagement measure. The list is topped by institutions with religious affiliations, but that's where any pattern ends.

**Dordt College** in Sioux Center, Iowa, leads the pack for engagement. Most of the roughly 1,440 students at the Reformed Christian school live on campus, and are encouraged to bring classroom lessons off-campus. For example, last year a group of senior engineering majors designed and constructed a bridge for a Liberian farming community.

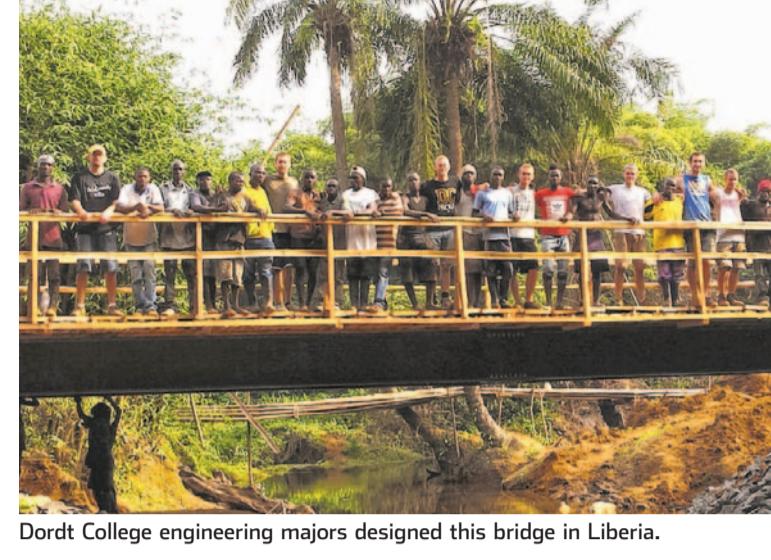
"It's not just about getting ready. Real life is right now," says associate provost Leah Zuidema of the school's interest in hands-on instruction.

Dordt holds a speaker series the first Monday of every month, with topics like reconciling science and faith or race and politics in America.

"You can't separate the curricular from the co-curricular," says Dean of Students Robert Taylor, referring to the optional extra lectures.

**Texas Christian University**, affiliated with the Disciples of Christ, came in at No. 2.

**Texas A&M University** in College Station, **Brigham Young University**



Dordt College engineering majors designed this bridge in Liberia.

AUSTIN LINDENHOLER

in Provo, Utah, and **Cedarville University** in Ohio, with undergraduate populations ranging from about 3,300 to 43,000, all tied for third.

"We realize we are a research colossus. But we work very hard never to lose the focus on students," says Texas A&M President Michael K. Young. He cited a recent push for all students to have at least two "high impact" or "transformational" learning experiences by graduation, which can include research projects with faculty and study abroad.

The goal, says Mr. Young, is to ensure that "students are not simply passive receptacles of information."

Some of the nation's most elite institutions fell flat on student engagement, a reminder that just because a school has superstar faculty and smart students doesn't mean they interact in meaningful ways.

Harvard and Princeton, No. 1 and

No. 9 overall, tied with many other schools for 533rd on engagement.

A representative from Harvard didn't respond to a request for comment. A Princeton spokesman referred to President Christopher Eisgruber's opening speech for new students earlier this month, in which he highlighted the value of having students engage with faculty.

"I urge you to seek out...faculty members, hear what they have to say, and learn from them. Keep in mind, however, that what they offer are not authoritative pronouncements but arguments backed up by reasons. It is your responsibility to assess their views for yourselves," Mr. Eisgruber said in the address.

**Ms. Korn** is a staff reporter for The Wall Street Journal in New York. She can be reached at [melissa.korn@wsj.com](mailto:melissa.korn@wsj.com)

## TOP SCHOOLS FOR ENGAGEMENT

The colleges with the highest scores for how engaged students feel they are with their professors and their education

1. Dordt College
2. Texas Christian University
3. Brigham Young University, Provo
4. Cedarville University
5. Texas A&M University, College Station
6. Baylor University
7. Brown University
8. Auburn University
9. Bradley University
10. California Baptist University
11. California Polytechnic State University, San Luis Obispo
12. Concordia College at Moorhead
13. Harding University
14. Oral Roberts University
15. University of Southern California
16. Washington University in St. Louis

Source: Wall Street Journal/Times Higher Education College Rankings  
THE WALL STREET JOURNAL.

# Inspired by Their Peers

## Fellow students are crucial in shaping experiences



KAT SCHLEICHER

At Alverno College in Milwaukee, studies are structured for students to learn from each other.

BY DOUGLAS BELKIN

ACADEMIC RIGOR, facilities and the quality of teaching are all big parts of college life, but one of the most important factors—and possibly most overlooked—is the student in the next study carrel.

"Peers are the single most important influential group on campus in terms of how students spend their time, what classes they take, how much they study and what habits they pick up," says George Kuh, a professor of educational policy at Indiana University. "Peers matter big time, they shape a student's experience."

To that end, a survey conducted in conjunction with the Wall Street Journal/Times Higher Education College Rankings asked students across the country: "Do you think your college provides an environment where you feel you are surrounded by exceptional students who inspire and motivate you?"

The answers weren't factored into the rankings but offer a fascinating insight into the range of student feelings toward their classmates. Schools that scored highest ran the gamut—from the Ivy League to religious schools and small liberal-arts colleges. But one theme jumped out: Women's colleges did very well.

Among the top 15 schools, three are women-only schools—even though the vast majority of schools are coed.

"One of the things that is fundamental to the Spelman culture is the concept of the Spelman sisterhood," says Mary Campbell, president of Spelman College, a historically black all-women's school in Atlanta, which finished third in this cate-



### STUDENTS' TOP SCHOOLS FOR INSPIRATION

The schools ranked highest by students for inspiration

1. Alverno College
2. Master's University
3. Spelman College
4. Massachusetts Institute of Technology
5. Brown University
6. Dartmouth College
7. Missouri Baptist University
8. Harvard University
9. Harding University
10. Houghton College

Source: Wall Street Journal/Times Higher Education College Rankings  
THE WALL STREET JOURNAL.



Students ranked Endicott College No. 2 for internships that prepare them for their careers.

ENDICOTT COLLEGE

# To Prepare Students for Careers, These Schools Push Internships

BY KELSEY GEE

COLLEGES HAVE LONG dealt with a reputation as Ivory Towers with little connection to real life, but students generally give their schools at least some credit for trying to prepare them for the world of work.

In a survey asking students to rate how effective their colleges and universities have been in helping them secure internships that prepare them for careers, the 761 schools where at least 1% of the student population responded received a 7.9 rating out of 10 on average, the equivalent of about a C+ grade. The survey was conducted in conjunction with the Wall Street Journal/Times Higher Education College Rankings.

Topping the career-preparation category were schools that require students to participate in formal internships or cooperatives. Kettering University in Flint, Mich., which offers undergraduate degrees in science, technology and business, was first, followed by Endicott College in Beverly, Mass.

Opportunities to apply academic concepts in the real world are a "critical component" of a student's education, says Robert McMahan, president of Kettering, which earned a 9.74 rating on average from students.

Kettering students rotate each semester between taking classes and completing 12-week stints as full-time employees of large companies such as **General Motors** Co., which previously owned and funded the now-independent private university.

GM employs around 100 cooperative students from Kettering each year, and hires around 20 graduates full-time, according to Shawn Wylin, a talent specialist with the auto maker. Executives begin recruiting Kettering students for such roles as soon as

they accept their Kettering offer of admission, she adds.

Administrators at schools like Bard College in Annandale-on-Hudson, N.Y., which landed at the bottom of students' career-readiness ratings in the pool of 761 colleges, with a 6.09 average rating, say that a liberal-arts education can sharpen the soft communication and analytical skills needed on the job. "Our focus culturally is really on students meeting their academic requirements," says Elisabeth Giglio, the head of Bard's career-development office.

At Reed College, which also landed near the bottom with a 6.29 average rating, undergraduates are just as likely to spend summers writing screenplays or musical scores as they are in internships, says Alice Harra, director of the Portland, Ore., school's Center for Life Beyond Reed.

The benefit of such work may be less obvious but is just as likely to help students identify successful career paths, she says, pointing to the roughly 95% of Reed's graduates who either land jobs, enter graduate school or fellowship programs, or prepare to apply to advanced-degree programs within six months after receiving their degree.

Emily Clark, a senior studying environmental history at Reed, says the school offers plenty of internship options but doesn't force them on students.

She won a \$5,000 award for an internship this past summer where she wrote grants and maintained trails along the California coast. The experience helped solidify her passion for conservation, she says, and she now hopes to land a job doing similar work after graduation.



### STUDENTS' TOP SCHOOLS FOR CAREER PREPARATION

The schools that students say prepare them best for their careers with internships

1. Kettering University
2. Endicott College
3. Lancaster Bible College
4. Northeastern University
5. Rose-Hulman Institute of Technology
6. Drexel University
7. Bentley University
8. Berea College
9. Dartmouth College
10. Hampden-Sydney College

Source: Wall Street Journal/Times Higher Education College Rankings  
THE WALL STREET JOURNAL.

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## JOURNAL REPORT | U.S. COLLEGE RANKINGS

# The Wall Street Journal/ Times Higher Education Ranking of U.S. Colleges

The Wall Street Journal/Times Higher Education College Rankings are based on 15 key indicators that assess colleges in four areas: Outcomes, Resources, Engagement and Environment. Outcomes comprise 40% of the weighting and measure things like the salary graduates earn and the debt burden they take on. Resources, with a 30% weighting, is mainly a proxy for the spending schools put into instruction and academic services. Engagement, drawn mostly from a student

survey and with a 20% weight, examines views on things like teaching and interactions with faculty and other students. Environment, at 10%, assesses the diversity of the university community. Among other questions, the survey asked students if they felt they made the right choice in picking their college; those results are listed in our table with a score of 0 to 10, with 10 representing the strongest agreement. The Salary column in our table is earnings 10 years after entering col-

lege, reflecting multiple years of data, while the Default Rate shows the percentage of people in default on their loans after their repayment period begins. These salary and debt data are available only for people who had federal loans. In our rankings, a value-added analysis is applied to salary and debt.

The full ranking of more than 1,000 schools is online, at [WSJ.com/collegerankings](http://WSJ.com/collegerankings). A detailed explanation of the methodology is at <http://on.wsj.com/college-ranking-methodology>.

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
1	Harvard University	Cambridge, MA	91.9	39.5	29.8	15.6	7.0	9.09	91,000	0.9	Private
2	Columbia University	New York, NY	90.6	39.0	27.0	16.7	7.8	8.06	74,000	1.4	Private
3	Massachusetts Institute of Technology	Cambridge, MA	90.4	38.2	29.2	15.8	7.2	9.11	90,000	1.1	Private
3	Stanford University	Stanford, CA	90.4	38.9	26.2	17.4	7.9	8.96	83,000	0.8	Private
5	Duke University	Durham, NC	90.2	39.5	26.7	17.2	6.8	9.19	77,000	0.4	Private
6	Yale University	New Haven, CT	90.0	39.3	26.8	16.9	7.2	8.74	70,000	0.6	Private
7	California Institute of Technology	Pasadena, CA	89.8	38.8	30.0	14.6	6.4	8.35	76,000	1.9	Private
8	University of Pennsylvania	Philadelphia, PA	89.6	38.4	27.0	17.3	6.9	7.99	79,000	1.5	Private
9	Princeton University	Princeton, NJ	89.5	39.1	28.1	15.6	6.8	8.66	76,000	1.0	Private
10	Cornell University	Ithaca, NY	88.9	38.1	26.8	17.5	6.6	8.73	72,000	0.7	Private
11	Brown University	Providence, RI	87.5	36.1	26.8	17.7	7.0	9.17	60,000	1.7	Private
11	University of Chicago	Chicago, IL	87.5	38.2	26.9	15.5	6.8	8.60	63,000	1.0	Private
11	Washington University in St Louis	Saint Louis, MO	87.5	37.6	26.2	17.6	6.2	8.65	63,000	0.8	Private
14	Rice University	Houston, TX	87.4	36.3	27.2	17.1	6.8	8.59	62,000	0.4	Private
15	Northwestern University	Evanston, IL	87.3	36.6	27.2	17.2	6.2	8.38	64,000	1.3	Private
15	University of Southern California	Los Angeles, CA	87.3	36.5	25.4	17.6	7.7	8.75	67,000	1.8	Private
17	Dartmouth College	Hanover, NH	86.8	37.0	26.6	17.3	5.9	9.05	67,000	0.9	Private
17	Johns Hopkins University	Baltimore, MD	86.8	37.7	25.7	16.2	7.1	8.49	68,000	1.1	Private
19	Emory University	Atlanta, GA	86.4	36.2	26.0	16.6	7.6	7.92	59,000	1.5	Private
20	Carnegie Mellon University	Pittsburgh, PA	86.1	36.8	25.4	17.3	6.7	7.99	74,000	0.6	Private
21	Vanderbilt University	Nashville, TN	85.3	37.4	25.5	17.4	5.0	8.91	61,000	1.2	Private
22	Williams College	Williamstown, MA	85.0	38.2	24.5	15.8	6.6	8.24	56,000	1.8	Private
23	Amherst College	Amherst, MA	84.4	37.5	24.1	15.4	7.4	7.97	57,000	2.4	Private
24	University of Notre Dame	Notre Dame, IN	83.1	37.0	24.4	17.1	4.6	8.68	70,000	0.4	Private
25	University of California, Los Angeles	Los Angeles, CA	82.2	36.7	19.8	16.9	8.8	8.83	59,000	2.0	Public
26	Pomona College	Clairemont, CA	82.1	33.1	24.9	16.3	7.8	8.63	52,000	1.8	Private
27	University of Michigan-Ann Arbor	Ann Arbor, MI	81.8	37.6	21.0	17.3	6.0	8.75	58,000	1.3	Public
28	Wellesley College	Wellesley, MA	81.1	33.0	24.3	16.6	7.1	8.59	57,000	1.8	Private
29	New York University	New York, NY	81.0	32.8	23.4	17.1	7.7	8.58	59,000	1.9	Private
30	Swarthmore College	Swarthmore, PA	80.9	32.2	24.2	17.3	7.2	7.76	49,000	0.0	Private

## TOP SCHOOLS FOR RESOURCES

### 1. CALIFORNIA INSTITUTE OF TECHNOLOGY

Pasadena, Calif.

UNDERGRADUATE STUDENTS: 962  
TUITION AND FEES: \$45,390  
ROOM AND BOARD: \$13,371

### 2. HARVARD UNIVERSITY

Cambridge, Mass.

UNDERGRADUATE STUDENTS: 9,457  
TUITION AND FEES: \$45,278  
ROOM AND BOARD: \$15,381

### 3. MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge, Mass.

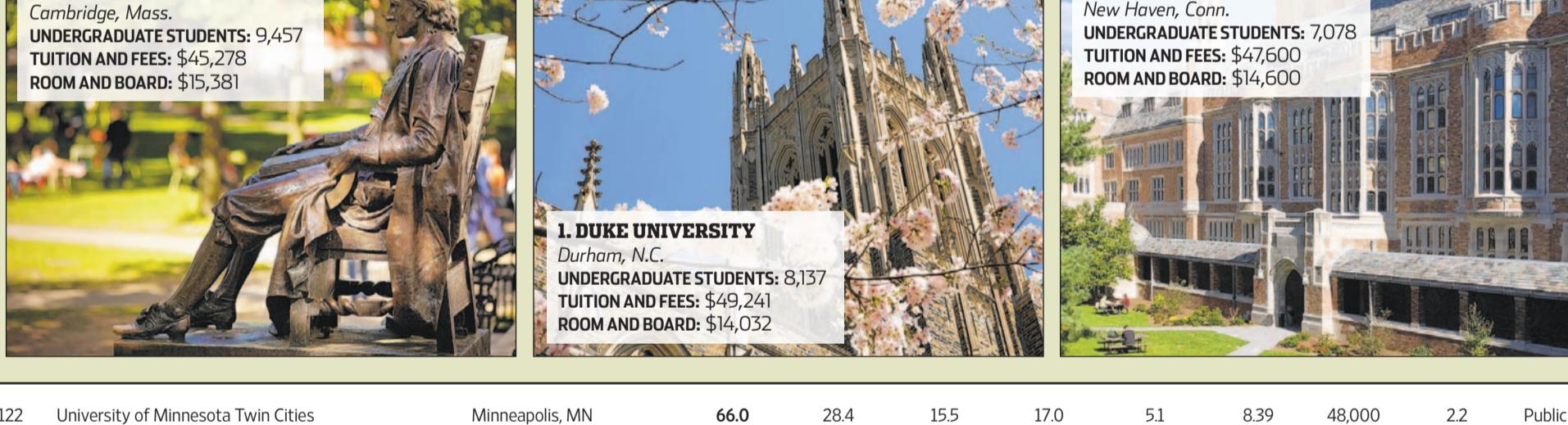
UNDERGRADUATE STUDENTS: 4,488  
TUITION AND FEES: \$46,704  
ROOM AND BOARD: \$13,730

31	Georgetown University	Washington, DC	80.8	35.3	23.1	16.1	6.3	8.61	84,000	0.8	Private
32	Tufts University	Medford, MA	80.6	32.5	25.8	16.4	5.9	8.03	66,000	1.0	Private
33	University of North Carolina at Chapel Hill	Chapel Hill, NC	80.2	37.6	20.7	16.5	5.3	8.25	51,000	1.5	Public
34	Case Western Reserve University	Cleveland, OH	79.6	32.6	24.2	16.5	6.3	7.97	68,000	1.2	Private
35	Claremont McKenna College	Claremont, CA	79.5	31.3	24.8	16.7	6.7	7.98	65,000	0.0	Private
36	Middlebury College	Middlebury, VT	79.0	33.9	23.7	16.5	4.8	7.98	54,000	1.5	Private
37	Smith College	Northampton, MA	78.9	31.5	23.7	16.9	6.9	8.05	44,000	0.9	Private
38	Carleton College	Northfield, MN	78.6	32.6	23.3	16.8	6.0	8.18	48,000	1.0	Private
39	Bowdoin College	Brunswick, ME	78.4	33.1	23.7	16.8	4.8	9.02	55,000	1.3	Private
40	Boston University	Boston, MA	78.2	33.6	21.3	16.9	6.4	7.72	60,000	1.5	Private
40	University of California, Berkeley	Berkeley, CA	78.2	34.6	18.6	16.6	8.4	8.36	62,000	2.0	Public
42	Haverford College	Haverford, PA	78.0	32.0	24.5	16.0	5.6	8.28	56,000	3.3	Private
43	Purdue University West Lafayette	West Lafayette, IN	77.1	34.0	20.2	17.1	5.7	8.09	53,000	2.8	Public
44	University of Miami	Coral Gables, FL	77.0	30.5	21.7	17.2	7.7	7.60	53,000	2.0	Private
45	Wesleyan University	Middletown, CT	76.9	30.5	23.8	16.0	6.5	8.48	50,000	1.6	Private
46	University of California, Davis	Davis, CA	76.8	33.2	18.1	17.0	8.4	8.28	57,000	2.6	Public
47	University of California, San Diego	La Jolla, CA	76.1	34.1	17.8	15.5	8.7	7.27	59,000	2.0	Public
48	University of Illinois at Urbana-Champaign	Champaign, IL	75.8	35.9	15.5	17.1	7.4	8.42	57,000	1.8	Public
49	Bryn Mawr College	Bryn Mawr, PA	75.5	28.3	24.2	15.6	7.3	8.20	52,000	1.7	Private
50	Lehigh University	Bethlehem, PA	75.4	29.5	23.5	16.9	5.5	8.20	77,000	1.0	Private
51	University of Rochester	Rochester, NY	74.6	28.0	24.2	16.5	5.8	7.80	56,000	1.2	Private
52	Wake Forest University	Winston-Salem, NC	74.5	30.8	23.0	16.1	4.5	8.65	60,000	1.2	Private
53	Georgia Institute of Technology	Atlanta, GA	74.2	35.8	15.6	15.6	7.1	8.82	74,000	2.1	Public
54	Davidson College	Davidson, NC	74.0	31.4							

## JOURNAL REPORT | U.S. COLLEGE RANKINGS

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
75	Grinnell College	Grinnell, IA	<b>71.0</b>	26.1	23.2	15.2	6.4	8.14	44,000	3.5	Private
75	University of Pittsburgh-Pittsburgh campus	Pittsburgh, PA	<b>71.0</b>	31.4	18.4	16.5	4.7	7.91	48,000	3.8	Public
77	Mount Holyoke College	South Hadley, MA	<b>70.9</b>	25.4	22.1	16.4	7.0	8.65	44,000	2.1	Private
78	Macalester College	Saint Paul, MN	<b>70.8</b>	27.3	22.1	15.8	5.6	8.05	46,000	0.3	Private
79	Trinity University	San Antonio, TX	<b>70.6</b>	24.8	22.5	17.0	6.3	7.58	54,000	1.8	Private
80	Michigan State University	East Lansing, MI	<b>70.5</b>	31.6	15.8	17.3	5.8	8.62	50,000	3.6	Public
81	Southern Methodist University	Dallas, TX	<b>70.4</b>	27.1	20.7	17.1	5.6	8.29	53,000	2.9	Private
82	University of Maryland, College Park	College Park, MD	<b>70.3</b>	34.0	13.1	16.7	6.5	7.85	60,000	2.1	Public
83	Worcester Polytechnic Institute	Worcester, MA	<b>70.2</b>	28.6	20.0	16.3	5.3	8.84	79,000	1.9	Private
84	Denison University	Granville, OH	<b>70.0</b>	26.7	21.6	16.2	5.5	8.17	49,000	1.3	Private
84	Drexel University	Philadelphia, PA	<b>70.0</b>	25.7	20.3	17.0	6.9	8.54	62,000	3.1	Private
84	College of the Holy Cross	Worcester, MA	<b>70.0</b>	29.3	21.3	15.8	3.6	9.15	63,000	0.5	Private
87	Brandeis University	Waltham, MA	<b>69.9</b>	26.4	21.8	15.7	5.9	7.89	58,000	1.5	Private
87	Rensselaer Polytechnic Institute	Troy, NY	<b>69.9</b>	29.5	18.8	15.0	6.6	7.22	81,000	0.9	Private
89	Franklin & Marshall College	Lancaster, PA	<b>69.6</b>	27.5	22.3	15.3	4.4	7.54	54,000	2.2	Private
89	University of Washington-Seattle	Seattle, WA	<b>69.6</b>	27.9	17.6	16.7	7.4	7.97	53,000	2.6	Public
91	Occidental College	Los Angeles, CA	<b>69.5</b>	27.3	20.4	14.9	6.9	6.55	49,000	0.0	Private
92	Union College	Schenectady, NY	<b>69.3</b>	28.8	21.6	15.2	3.7	8.24	63,000	0.9	Private
93	Scripps College	Claremont, CA	<b>69.1</b>	24.5	22.4	15.6	6.7	7.60	48,000	1.0	Private
93	Texas A&M University-College Station	College Station, TX	<b>69.1</b>	30.9	14.6	17.9	5.8	9.03	53,000	4.1	Public
93	Trinity College	Hartford, CT	<b>69.1</b>	26.2	22.2	15.5	5.2	7.12	55,000	3.4	Private
96	University of Denver	Denver, CO	<b>68.6</b>	27.3	19.8	16.3	5.2	7.61	52,000	1.6	Private
96	Kenyon College	Gambier, OH	<b>68.6</b>	27.3	22.0	15.7	3.6	8.91	44,000	1.5	Private
98	Bentley University	Waltham, MA	<b>68.3</b>	29.3	17.3	15.9	5.8	8.51	76,000	1.6	Private
99	University of California, Santa Barbara	Santa Barbara, CA	<b>68.1</b>	30.0	14.0	16.5	7.6	8.30	52,000	2.4	Public
100	William & Mary	Williamsburg, VA	<b>68.0</b>	30.1	17.8	15.6	4.5	8.40	56,000	0.9	Public
101	Spelman College	Atlanta, GA	<b>67.9</b>	28.4	17.8	15.9	5.8	8.98	46,000	7.7	Private
102	Connecticut College	New London, CT	<b>67.8</b>	25.9	22.1	15.4	4.4	7.46	51,000	2.1	Private
102	Rhode Island School of Design	Providence, RI	<b>67.8</b>	26.6	20.6	14.9	5.7	8.94	46,000	1.0	Private
104	Howard University	Washington, DC	<b>67.5</b>	23.8	21.5	16.2	6.1	7.92	46,000	6.1	Private
105	University of Connecticut	Storrs, CT	<b>67.4</b>	27.0	18.0	16.5	5.9	7.45	54,000	2.2	Public
105	Saint Louis University	Saint Louis, MO	<b>67.4</b>	25.7	20.7	16.2	4.8	8.14	54,000	3.9	Private
105	The College of Wooster	Wooster, OH	<b>67.4</b>	26.6	19.7	16.4	4.7	7.92	45,000	1.2	Private
108	Syracuse University	Syracuse, NY	<b>67.2</b>	28.5	15.7	17.0	6.0	8.51	57,000	3.1	Private
109	DePauw University	Greencastle, IN	<b>67.1</b>	25.0	21.0	15.9	5.2	6.85	48,000	2.9	Private
110	Gettysburg College	Gettysburg, PA	<b>67.0</b>	26.6	21.4	15.8	3.2	7.90	52,000	1.5	Private
111	University of Illinois at Chicago	Chicago, IL	<b>66.7</b>	24.8	17.7	16.0	8.1	7.30	51,000	2.8	Public
111	Rose-Hulman Institute of Technology	Terre Haute, IN	<b>66.7</b>	28.9	18.8	15.2	3.9	9.35	79,000	0.5	Private
113	Brigham Young University-Provo	Provo, UT	<b>66.6</b>	33.7	12.9	17.9	2.1	9.16	57,000	1.1	Private
113	Dickinson College	Carlisle, PA	<b>66.6</b>	27.1	20.6	15.2	3.7	7.13	53,000	0.9	Private
115	Pitzer College	Claremont, CA	<b>66.5</b>	22.6	20.2	16.7	7.0	8.05	45,000	1.5	Private
115	Wheaton College (Massachusetts)	Norton, MA	<b>66.5</b>	23.7	21.5	16.1	5.2	8.32	45,000	1.5	Private
117	University at Buffalo	Buffalo, NY	<b>66.4</b>	23.5	19.7	15.8	7.4	7.47	49,000	3.1	Public
117	University of the Pacific	Stockton, CA	<b>66.4</b>	24.5	18.3	15.9	7.7	7.21	67,000	1.4	Private
119	Yeshiva University	New York, NY	<b>66.3</b>	25.0	23.8	13.8	3.8	7.66	56,000	1.5	Private
120	Colorado College	Colorado Springs, CO	<b>66.1</b>	22.1	22.0	16.2	5.8	8.23	40,000	0.9	Private
120	Villanova University	Villanova, PA	<b>66.1</b>	27.9	18.8	16.2	3.3	7.94	74,000	1.1	Private

### TOP SCHOOLS FOR OUTCOMES



122	University of Minnesota Twin Cities	Minneapolis, MN	<b>66.0</b>	28.4	15.5	17.0	5.1	8.39	48,000	2.2	Public
123	Babson College	Wellesley, MA	<b>65.8</b>	28.7	15.7	15.2	6.2	8.17	86,000	0.5	Private
123	Virginia Polytechnic Institute and State University	Blacksburg, VA	<b>65.8</b>	29.9	14	17.3	4.6	9.09	58,000	1.7	Public
125	Illinois Institute of Technology	Chicago, IL	<b>65.7</b>	26.2	17.4	14.1	8.0	6.85	69,000	2.1	Private
125	Pennsylvania State University	University Park, PA	<b>65.7</b>	25.4	17.9	17.0	5.4	8.86	48,000	4.9	Public
127	Seattle University	Seattle, WA	<b>65.6</b>	23.5	18.5	16.4	7.3	7.70	56,000	1.7	Private
128	Allegheny College	Meadville, PA	<b>65.5</b>	24.9	20.6	15.5	4.4	7.72	49,000	2.8	Private
128	Loyola Marymount University	Los Angeles, CA	<b>65.5</b>	22.2	19.3	16.7	7.4	8.65	55,000	1.7	Private
130	Furman University	Greenville, SC	<b>65.4</b>	26.2	20.4	16.2	2.7	7.97	47,000	3.1	Private
130	Reed College	Portland, OR	<b>65.4</b>	23.0	23.0	14.2	5.2	8.14	36,000	3.3	Private
130	Rochester Institute of Technology	Rochester, NY	<b>65.4</b>	25.2	1						

## JOURNAL REPORT | U.S. COLLEGE RANKINGS

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
166	Linfield College - McMinnville campus	McMinnville, OR	<b>62.7</b>	24.2	18.3	15.2	5.0	7.53	52,000	1.9	Private
166	Whitman College	Walla Walla, WA	<b>62.7</b>	21.1	22.7	16.2	2.7	8.22	43,000	0.4	Private
168	Santa Clara University	Santa Clara, CA	<b>62.6</b>	23.4	16.8	16.1	6.4	7.46	68,000	1.7	Private
169	Simmons College	Boston, MA	<b>62.4</b>	22.7	18.9	15.6	5.1	7.22	51,000	1.4	Private
170	Berea College	Berea, KY	<b>62.3</b>	19.4	19.9	16.5	6.5	9.07	34,000	10.4	Private
170	University of Tulsa	Tulsa, OK	<b>62.3</b>	19.1	20.7	17.1	5.4	8.74	43,000	2.9	Private
172	Susquehanna University	Selinsgrove, PA	<b>62.2</b>	24.9	17.5	16.1	3.6	7.72	50,000	2.9	Private
172	Washington & Jefferson College	Washington, PA	<b>62.2</b>	25.7	18.1	15.3	3.3	8.10	49,000	2.1	Private
174	Butler University	Indianapolis, IN	<b>62.1</b>	24.5	18.3	17.3	1.9	8.84	54,000	1.5	Private
174	University of Colorado Boulder	Boulder, CO	<b>62.1</b>	27.1	13.7	16.6	4.6	8.34	48,000	3.1	Public
174	Ohio Wesleyan University	Delaware, OH	<b>62.1</b>	21.4	20.0	16.8	3.9	7.80	42,000	5.1	Private
177	Chapman University	Orange, CA	<b>61.9</b>	26.0	14.5	16.4	5.1	8.31	51,000	2.7	Private
177	Sewanee-The University of the South	Sewanee, TN	<b>61.9</b>	21.9	21.1	16.1	2.8	8.52	39,000	2.9	Private
179	University of Arizona	Tucson, AZ	<b>61.7</b>	25.8	11.9	17.0	7.1	7.69	44,000	5.7	Public
179	Knox College	Galesburg, IL	<b>61.7</b>	22.2	18.5	15.3	5.8	7.57	42,000	2.6	Private
179	Lawrence University	Appleton, WI	<b>61.7</b>	21.6	20.5	15.3	4.3	7.88	42,000	2.3	Private
179	Texas Christian University	Fort Worth, TX	<b>61.7</b>	23.1	16.8	18.1	3.6	8.54	50,000	3.7	Private
179	Wofford College	Spartanburg, SC	<b>61.7</b>	26.2	17.6	15.8	2.1	8.69	48,000	3.7	Private
184	Bryant University	Smithfield, RI	<b>61.6</b>	27.1	14.4	15.8	4.3	8.50	63,000	1.7	Private
184	Drake University	Des Moines, IA	<b>61.6</b>	24.2	17.1	16.8	3.5	7.45	56,000	2.1	Private
184	Loyola University Maryland	Baltimore, MD	<b>61.6</b>	25.5	16.9	15.6	3.6	7.88	63,000	0.8	Private
184	Missouri University of Science and Technology	Rolla, MO	<b>61.6</b>	25.7	15.9	14.9	5.0	8.26	65,000	4.3	Public
188	Baylor University	Waco, TX	<b>61.5</b>	22.4	17.1	17.7	4.3	8.57	49,000	4.1	Private
188	Clemson University	Clemson, SC	<b>61.5</b>	27.2	14.1	17.0	3.1	8.88	50,000	3.0	Public
188	University of Detroit Mercy	Detroit, MI	<b>61.5</b>	21.6	18.6	16.0	5.3	8.18	44,000	3.3	Private
191	Colorado School of Mines	Golden, CO	<b>61.4</b>	26.5	15.5	15.1	4.3	8.59	75,000	2.1	Public
191	Hampton University	Hampton, VA	<b>61.4</b>	21.8	18.5	15.4	5.6	6.86	42,000	7.0	Private
191	Ursinus College	Collegeville, PA	<b>61.4</b>	25.9	16.3	15.6	3.6	7.80	52,000	3.3	Private
194	Loyola University Chicago	Chicago, IL	<b>61.3</b>	24.3	15.4	16.1	5.5	6.23	51,000	3.2	Private
194	Virginia Military Institute	Lexington, VA	<b>61.3</b>	26.0	18.3	14.7	2.2	9.02	58,000	2.7	Public
196	Embry-Riddle Aeronautical University, Daytona Beach	Daytona Beach, FL	<b>61.0</b>	23.2	16.9	14.6	6.3	8.08	61,000	4.9	Private
196	SUNY Binghamton University	Vestal, NY	<b>61.0</b>	27.1	10.9	15.6	7.4	6.91	58,000	1.9	Public
198	American University	Washington, DC	<b>60.9</b>	22.5	16.8	15.4	6.2	7.59	56,000	1.5	Private
198	Catholic University of America	Washington, DC	<b>60.9</b>	17.1	22.8	16.3	4.7	7.31	54,000	2.6	Private
198	Rutgers University-Newark	Newark, NJ	<b>60.9</b>	20.3	18.4	14.4	7.8	7.16	55,000	3.4	Public
198	Saint Mary's College	Notre Dame, IN	<b>60.9</b>	23.8	18.9	15.5	2.7	8.12	46,000	0.9	Private
202	Muhlenberg College	Allentown, PA	<b>60.8</b>	25.6	18.0	15.5	1.8	7.52	56,000	3.1	Private
203	Quinnipiac University	Hamden, CT	<b>60.6</b>	24.9	16.1	16.0	3.6	7.97	57,000	1.5	Private
203	Saint Mary's College of California	Moraga, CA	<b>60.6</b>	22.0	15.8	16.4	6.5	7.48	59,000	3.2	Private
205	Beloit College	Beloit, WI	<b>60.5</b>	20.2	19.3	16.0	5.0	6.07	38,000	1.4	Private
205	Drew University	Madison, NJ	<b>60.5</b>	19.5	19.4	15.2	6.4	7.53	51,000	3.9	Private
205	Molloy College	Rockville Centre, NY	<b>60.5</b>	24.8	14.6	15.8	5.3	8.36	57,000	3.3	Private
205	Washington College	Chestertown, MD	<b>60.5</b>	23.6	18.6	15.4	2.9	8.11	46,000	1.7	Private
209	Juniata College	Huntingdon, PA	<b>60.4</b>	24.6	15.9	16.5	3.5	7.56	45,000	2.9	Private
209	Siena College	Loudonville, NY	<b>60.4</b>	26.2	16.2	15.0	3.0	7.65	55,000	1.8	Private
211	Ithaca College	Ithaca, NY	<b>60.3</b>	23.3	16.7	17.2	3.2	8.30	50,000	2.0	Private
212	Fordham University	Bronx, NY	<b>60.2</b>	23.6	15.3	15.8	5.5	7.51	56,000	2.8	Private

### TOP SCHOOLS FOR ENGAGEMENT

**1. DORDT COLLEGE**  
Sioux Center, Iowa  
UNDERGRADUATE STUDENTS: 1,437  
TUITION AND FEES: \$28,280  
ROOM AND BOARD: \$8,350

**2. TEXAS CHRISTIAN UNIVERSITY**  
Fort Worth, Texas  
UNDERGRADUATE STUDENTS: 8,502  
TUITION AND FEES: \$40,720  
ROOM AND BOARD: \$11,800

213	Florida Institute of Technology	Melbourne, FL	<b>60.1</b>	15.7	21.2	15.7	7.5	8.08	54,000	11.0	Private
214	Fairfield University	Fairfield, CT	<b>60.0</b>	25.4	16.2	16.0	2.4	8.13	69,000	1.6	Private
214	University of Scranton	Scranton, PA	<b>60.0</b>	23.8	17.5	16.8	1.8	7.20	56,000	3.2	Private
216	Cornell College	Mount Vernon, IA	<b>59.9</b>	22.4	17.7	15.9	3.9	8.70	41,000	2.3	Private
216	Lake Forest College	Lake Forest, IL	<b>59.9</b>	22.6	15.8	15.1	6.5	8.03	48,000	4.1	Private
218	Saint John's University	Collegeville, MN	<b>59.8</b>	26.8	15.9	14.5	2.7	7.61	56,000	0.9	Private
218	University of the Sciences	Philadelphia, PA	<b>59.8</b>	18.5	21.9	13.9	5.5	7.57	91,000	2.9	Private
220	Mercer University	Macon, GA	<b>59.7</b>	19.2	16.7	16.9	6.9	8.25	47,000	4.4	Private
220	Otis College of Art and Design	Los Angeles, CA	<b>59.7</b>	19.4	18.0	14.5	7.8	7.45	44,000	3.4	Private
220	University of San Francisco	San Francisco, CA	<b>59.7</b>	20.7	14.8	15.7	8.4	7.31	61,000	2.4	Private
220	Xavier University	Cincinnati, OH	<b>59.7</b>	21.8	16.7	17.3	3.9	7			

## JOURNAL REPORT | U.S. COLLEGE RANKINGS

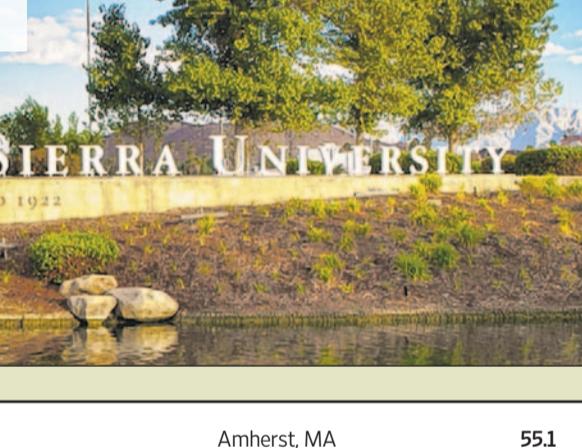
RANK	COLLEGE	CITY / STATE	OVERALL SCORE	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
			(Out of a possible 100)								
257	Hofstra University	Hempstead, NY	57.5	17.9	17.2	16.7	5.7	7.51	53,000	3.3	Private
257	SUNY University at Albany	Albany, NY	57.5	22.4	13.0	14.6	7.5	7.19	50,000	4.5	Public
257	Valparaiso University	Valparaiso, IN	57.5	20.7	15.5	17.1	4.2	8.12	49,000	3.6	Private
257	Westmont College	Santa Barbara, CA	57.5	21.9	16.0	15.2	4.4	8.45	48,000	1.5	Private
261	University of Georgia	Athens, GA	57.3	25.3	10.3	17.1	4.7	8.35	47,000	2.3	Public
262	University of Kansas	Lawrence, KS	57.2	18.5	16.4	17.0	5.3	8.32	45,000	4.3	Public
262	Pratt Institute	Brooklyn, NY	57.2	17.2	18.9	14.6	6.5	8.06	40,000	4.1	Private
264	Alma College	Alma, MI	57.1	20.4	18.4	15.6	2.6	8.52	44,000	2.3	Private
264	John Carroll University	University Heights, OH	57.1	24.4	14.3	15.6	2.8	7.44	51,000	2.7	Private
264	Sarah Lawrence College	Bronxville, NY	57.1	16.2	20.5	14.6	5.8	8.06	38,000	2.2	Private
264	Transylvania University	Lexington, KY	57.1	22.2	17.1	15.6	2.1	8.82	40,000	2.6	Private
268	University of Alabama at Birmingham	Birmingham, AL	57.0	18.8	15.9	15.7	6.6	8.13	40,000	5.4	Public
268	Concordia College at Moorhead	Moorhead, MN	57.0	21.7	15.8	17.6	1.9	8.83	41,000	1.4	Private
268	University of South Carolina-Columbia	Columbia, SC	57.0	23.6	12.7	16.2	4.5	8.18	42,000	4.6	Public
271	CUNY Bernard M. Baruch College	New York, NY	56.9	25.8	8.2	14.1	8.8	7.04	54,000	2.5	Public
272	CUNY City College of New York	New York, NY	56.8	15.5	17.9	14.6	8.8	7.04	45,000	5.0	Public
272	University of California, Riverside	Riverside, CA	56.8	18.9	13.5	16.0	8.5	8.00	48,000	2.8	Public
274	Augustana College (South Dakota)	Sioux Falls, SD	56.7	21.6	16.6	16.1	2.3	7.92	42,000	2.3	Private
274	George Mason University	Fairfax, VA	56.7	23.7	11.0	15.7	6.4	7.39	57,000	2.1	Public
274	Houghton College	Houghton, NY	56.7	21.7	16.4	15.8	2.8	8.09	40,000	1.0	Private
274	Southwestern University	Georgetown, TX	56.7	19.1	17.0	15.9	4.8	8.63	47,000	4.1	Private
278	Adelphi University	Garden City, NY	56.6	18.8	16.0	15.0	6.8	6.75	51,000	3.5	Private
279	Bard College	Annandale-On-Hudson, NY	56.4	16.2	22.2	14.0	4.1	6.74	37,000	2.8	Private
279	Goucher College	Baltimore, MD	56.4	18.8	18.2	14.5	4.9	7.20	46,000	3.7	Private
281	DePaul University	Chicago, IL	56.3	21.5	11.4	16.8	6.7	7.49	51,000	3.4	Private
282	Hendrix College	Conway, AR	56.2	18.6	18.8	15.8	3.0	7.81	40,000	3.8	Private
283	Moravian College	Bethlehem, PA	55.9	22.0	15.1	15.5	3.3	8.29	49,000	4.2	Private
284	Oklahoma City University	Oklahoma City, OK	55.8	14.2	18.7	17.5	5.5	8.51	40,000	3.8	Private
284	Suffolk University	Boston, MA	55.8	18.1	14.8	15.8	7.1	6.60	51,000	3.2	Private
286	University of California, Santa Cruz	Santa Cruz, CA	55.7	21.8	11.2	14.9	7.7	7.40	44,000	3.1	Public
286	University of Oregon	Eugene, OR	55.7	21.9	11.5	16.2	6.2	7.95	42,000	3.1	Public
286	Pacific Lutheran University	Tacoma, WA	55.7	19.6	15.2	15.7	5.2	8.13	46,000	3.4	Private
289	California College of the Arts	San Francisco, CA	55.6	14.7	18.0	14.6	8.3	8.05	34,000	5.6	Private
289	Rutgers University-Camden	Camden, NJ	55.6	16.9	17.9	14.1	6.7	7.52	55,000	3.4	Public
289	Western New England University	Springfield, MA	55.6	18.7	16.3	16.0	4.6	8.33	56,000	4.1	Private
292	Iowa State University	Ames, IA	55.5	23.3	10.9	16.7	4.6	8.26	48,000	3.5	Public
292	La Salle University	Philadelphia, PA	55.5	21.1	13.2	15.9	5.4	7.89	52,000	3.7	Private
292	University of Saint Joseph	West Hartford, CT	55.5	18.0	16.3	14.7	6.5	7.79	50,000	3.2	Private
292	Seton Hall University	South Orange, NJ	55.5	20.8	12.8	15.7	6.1	7.63	54,000	3.6	Private
296	California Institute of the Arts	Valencia, CA	55.4	13.6	19.9	14.7	7.2	8.83	32,000	4.1	Private
296	Whittier College	Whittier, CA	55.4	16.1	17.0	14.9	7.4	8.29	45,000	3.0	Private
298	Coe College	Cedar Rapids, IA	55.3	20.7	15.7	16.0	2.9	8.29	43,000	1.3	Private
298	Mount Saint Mary's University	Los Angeles, CA	55.3	20.1	12.2	15.3	7.8	7.04	50,000	6.1	Private
298	University of Portland	Portland, OR	55.3	24.9	11.4	15.3	3.7	7.93	53,000	1.1	Private
301	University of Evansville	Evansville, IN	55.2	18.7	15.3	17.3	3.8	8.42	40,000	2.1	Private
301	Wayne State University	Detroit, MI	55.2	14.6	16.7	16.2	7.7	7.42	40,000	6.3	Public
303	Calvin College	Grand Rapids, MI	55.1	18.6	15.7	17.4	3.4	8.21	41,000	2.7	Private

### TOP SCHOOLS FOR ENVIRONMENT

#### 1. LA SIERRA UNIVERSITY

Riverside, Calif.

UNDERGRADUATE STUDENTS: 1,901  
TUITION AND FEES: \$30,471  
ROOM AND BOARD: \$7,800



#### 2. CALIFORNIA STATE UNIVERSITY, NORTHRIIDGE

Northridge, Calif.

UNDERGRADUATE STUDENTS: 28,397  
TUITION AND FEES: \$6,569 (in-state)  
\$17,729 (out-of-state)  
ROOM AND BOARD: \$9,962

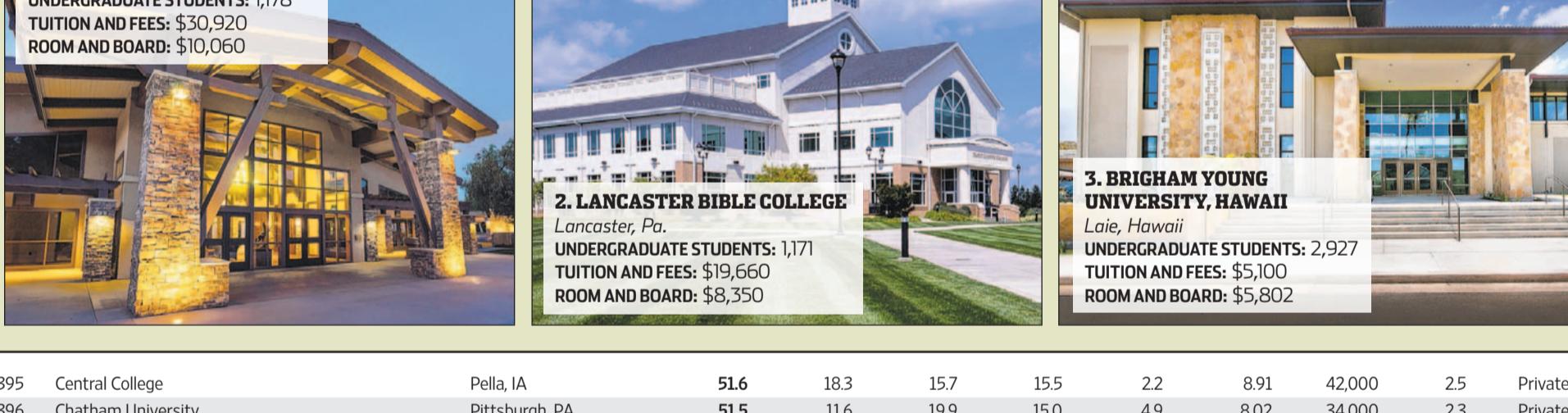


303	Hampshire College	Amherst, MA	55.1	13.6	19.9	16.3	5.3	7.92	32,000	3.6	Private
305	Lebanon Valley College	Annville, PA	54.9	20.9	16.6	15.3	2.2	8.21	46,000	3.2	Private
306	Auburn University	Auburn, AL	54.8	21.1	13.0	17.6	3.1	8.91	46,000	4.3	Public
306	Baldwin Wallace University	Berea, OH	54.8	20.8	13.6	17.2	3.2	7.99	44,000	4.1	Private
306	CUNY Hunter College	New York, NY	54.8	18.3	13.5	14.6	8.4	6.59	45,000	3.9	Public
306	Point Loma Nazarene University	San Diego, CA	54.8	21.6	11.0	17.4	4.9	9.10	49,000	2.3	Private
310	University of Hartford	West Hartford, CT	54.7	15.6	18.5	15.7	4.9	7.15	46,000	4.2	Private
310	Kettering University	Flint, MI	54.7	19.8	14.8	14.8	5.2	8.24	76,000	1.9	Private
312	Miami University	Oxford, OH									

## JOURNAL REPORT | U.S. COLLEGE RANKINGS

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
348	Merrimack College	North Andover, MA	53.2	22.1	12.3	15.9	3.0	7.48	56,000	3.9	Private
348	Rider University	Lawrenceville, NJ	53.2	17.4	15.6	15.2	5.0	7.07	49,000	4.8	Private
348	Springfield College	Springfield, MA	53.2	21.5	13.8	15.2	2.7	8.19	44,000	7.1	Private
348	University of St Thomas	Saint Paul, MN	53.2	19.7	13.7	16.6	3.3	7.90	55,000	1.9	Private
348	University of Washington-Bothell	Bothell, WA	53.2	16.5	14.3	14.8	7.7	7.73	53,000	2.6	Public
353	St John Fisher College	Rochester, NY	53.1	18.8	15.4	16.0	2.9	8.48	45,000	3.0	Private
353	St Norbert College	De Pere, WI	53.1	21.8	12.6	17.0	1.7	8.54	45,000	1.3	Private
355	Kansas State University	Manhattan, KS	53.0	18.0	13.3	17.3	4.3	8.76	43,000	5.0	Public
355	MCPHS University	Boston, MA	53.0	23.8	9.4	13.0	6.8	6.36	115,000	1.6	Private
357	Lawrence Technological University	Southfield, MI	52.9	18.0	14.7	15.2	5.0	8.38	54,000	3.7	Private
357	University of Maryland, Baltimore County	Baltimore, MD	52.9	21.6	9.4	15.0	6.9	7.35	54,000	3.7	Public
357	Xavier University of Louisiana	New Orleans, LA	52.9	18.1	12.9	15.4	6.5	6.38	47,000	8.5	Private
360	Albright College	Reading, PA	52.8	21.3	11.0	14.9	5.5	6.47	47,000	4.6	Private
360	Assumption College	Worcester, MA	52.8	22.9	12.3	15.4	2.2	7.27	53,000	2.8	Private
360	Azusa Pacific University	Azusa, CA	52.8	16.2	13.8	15.6	7.2	8.33	50,000	3.0	Private
360	Elmhurst College	Elmhurst, IL	52.8	21.9	10.5	16.6	3.9	7.49	48,000	1.8	Private
360	Hartwick College	Oneonta, NY	52.8	17.8	17.3	14.4	3.2	6.90	44,000	6.2	Private
360	University of Kentucky	Lexington, KY	52.8	19.3	13.0	16.8	3.8	8.07	42,000	4.5	Public
366	SUNY College of Environmental Science and Forestry	Syracuse, NY	52.7	19.0	15.2	15.7	2.7	9.06	43,000	2.5	Public
367	CUNY Queens College	Queens, NY	52.6	19.9	9.4	15.5	7.9	7.28	48,000	3.5	Public
367	Canisius College	Buffalo, NY	52.6	18.0	15.5	15.9	3.1	7.11	46,000	3.5	Private
367	Cedarville University	Cedarville, OH	52.6	21.1	12.0	17.9	1.6	8.70	41,000	2.0	Private
367	Marian University (Indiana)	Indianapolis, IN	52.6	19.2	15.1	15.0	3.3	7.37	41,000	5.3	Private
371	Messiah College	Mechanicsburg, PA	52.5	19.2	13.9	17.5	1.9	8.37	42,000	2.6	Private
371	New Jersey Institute of Technology	Newark, NJ	52.5	21.0	10.3	13.4	7.9	7.58	65,000	3.9	Public
371	Wartburg College	Waverly, IA	52.5	17.8	16.4	15.6	2.6	8.11	43,000	5.8	Private
371	University of Wyoming	Laramie, WY	52.5	16.3	15.8	17.3	3.2	8.65	46,000	4.3	Public
375	King's College	Wilkes-Barre, PA	52.4	20.8	13.6	15.9	2.1	7.49	48,000	5.5	Private
375	Milwaukee School of Engineering	Milwaukee, WI	52.4	21.7	11.9	14.7	3.9	8.28	66,000	3.2	Private
377	California State University Maritime Academy	Vallejo, CA	52.3	17.9	14.9	14.0	5.5	8.25	80,000	3.8	Public
377	Campbell University	Buies Creek, NC	52.3	16.7	13.8	16.9	4.9	7.25	43,000	5.8	Private
377	The Citadel, The Military College of South Carolina	Charleston, SC	52.3	22.2	12.1	14.5	3.5	8.81	52,000	3.0	Public
377	Georgetown College	Georgetown, KY	52.3	17.6	16.7	15.5	2.6	8.08	42,000	6.3	Private
377	San Diego State University	San Diego, CA	52.3	21.5	6.5	16.3	8.0	8.59	48,000	3.5	Public
377	St Catherine University	Saint Paul, MN	52.3	17.0	14.3	16.9	4.1	7.51	45,000	3.9	Private
377	West Virginia University	Morgantown, WV	52.3	19.7	12.5	16.2	3.8	8.30	44,000	7.5	Public
384	School of the Art Institute of Chicago	Chicago, IL	52.2	13.0	18.6	14.2	6.4	7.21	32,000	7.4	Private
385	University of Mount Union	Alliance, OH	52.1	19.4	12.6	17.0	3.1	8.56	41,000	4.3	Private
385	Philadelphia University	Philadelphia, PA	52.1	19.3	11.8	15.9	5.1	7.97	48,000	4.4	Private
387	Roger Williams University	Bristol, RI	52.0	17.7	15.1	16.3	3.0	7.56	47,000	2.9	Private
387	Union University	Jackson, TN	52.0	15.4	15.9	17.2	3.4	7.94	38,000	3.6	Private
389	Eckerd College	Saint Petersburg, FL	51.9	15.9	16.3	16.1	3.5	9.07	41,000	7.1	Private
390	University of Houston	Houston, TX	51.8	19.3	8.1	16.3	8.1	7.53	49,000	5.2	Public
390	The New School	New York, NY	51.8	13.7	15.4	15.4	7.3	8.18	40,000	4.3	Private
390	Rockhurst University	Kansas City, MO	51.8	22.9	11.4	15.5	2.1	7.95	47,000	2.7	Private
393	Dordt College	Sioux Center, IA	51.7	19.3	12.0	18.2	2.1	8.21	38,000	2.0	Private
393	Illinois State University	Normal, IL	51.7	20.8	10.4	16.5	3.9	7.68	45,000	2.9	Public

### TOP SCHOOLS FOR RIGHT CHOICE



395	Central College	Pella, IA	51.6	18.3	15.7	15.5	2.2	8.91	42,000	2.5	Private
396	Chatham University	Pittsburgh, PA	51.5	11.6	19.9	15.0	4.9	8.02	34,000	2.3	Private
396	University of Dallas	Irving, TX	51.5	16.4	16.3	15.2	3.6	8.72	45,000	1.6	Private
396	Wittenberg University	Springfield, OH	51.5	18.4	14.4	15.9	2.8	7.99	42,000	3.9	Private
399	Hiram College	Hiram, OH	51.4	14.9	16.6	15.5	4.4	7.10	38,000	8.0	Private
399	John Brown University	Siloam Springs, AR	51.4	22.0	9.5	16.7	3.2	9.29	46,000	3.9	Private
401	Capital University	Columbus, OH	51.3	17.4	14.2	16.6	3.1	8.01	41,000	4.7	Private
401	College of Idaho	Caldwell, ID	51.3	15.8	15.1	16.0	4.5	8.33	38,000	3.8	Private
401	University of Missouri-Kansas City	Kansas City, MO	51.3	13.8	16.3	14.8	6.4	7.57	43,000	7.7	Public
401	New York Institute of Technology	Old Westbury, NY	51.3	14.4	14.7	13.8	8.4	6.36	50,000	6.3	Private
401	Otterbein University	Westerville, OH	51.3	15.8	16.4	16.6	2.5	7.81	41,000	5.5	Private
406	University of Louisville	Louisville, KY	51.2	12.2	18.8	15.2	5.1	7.87	38,000	7.3	Public
406	University of Michigan-Dearborn	Dearborn, MI	51.2	17.4	11.3	15.7	6.8	8.12	46,000	4.6	Public
406	Virginia Commonwealth University	Richmond, VA	51.2	15.0	13.5	15.7	6.9	7.71	42,000	3.6	Public
409	James Madison University	Harrisonburg, VA</td									

## JOURNAL REPORT | U.S. COLLEGE RANKINGS

# State Schools Do Well Despite Budget Cuts

California boasts four campuses among the top 10 public institutions

BY MELISSA KORN

DESPITE LIMITED STATE support and more crowded classrooms, nearly two dozen public schools cracked the top 100 in this year's Wall Street Journal/Times Higher Education College Rankings.

These institutions proved they could offer a lower-cost option, often to a more diverse student body, and provide comparable outcomes to the private schools that dominate the top of the charts.

The University of California, Los Angeles was the highest-ranked state school, coming in at No. 25. It was followed by the University of Michigan, Ann Arbor at No. 27 and University of North Carolina, Chapel Hill at No. 33.

Twenty-one public universities made it into the top 100 of the WSJ/THE rankings, and eight reached the top 50.

The University of California system has four campuses among the top 10 public schools. Besides first-place UCLA, Berkeley comes in at fourth, followed by Davis, sixth, and San Diego, seventh.

Public universities get relatively little funding from state coffers these days.

Nationwide, state educational appropriations per full-time-equivalent student fell 15% between fiscal 2008

and fiscal 2016, according to the State Higher Education Executive Officers Association. In that same period, enrollment rose 8.5% and net tuition revenue for public higher education jumped 35%.

Funding challenges often lead schools to hold larger classes. The best student-faculty ratio for any public university in the top 100 was 12 to 1, at the University of Michigan, Purdue University (No. 43 overall) and William & Mary (No. 100). That ratio is in the mid-single digits for many elite private institutions.

At the other end of the spectrum, 21 of the more than 1,000 schools in the WSJ/THE rankings had a student-faculty ratio of at least 25 to 1, and they were all public schools, including much of the California State University system.

With minimal state support and, in many cases, caps on tuition increases, public universities tend to spend far less on academics than their private, nonprofit counterparts.

UCLA spent \$42,510 per student on instruction and academic services, adjusting for regional price differences with data from the Bureau of Economic Analysis. That is less than half the adjusted per-student academic spending at private schools Stanford University, Yale University, Washington University in St. Louis or Vanderbilt University, all of which landed higher in the overall



MARK BOSTER/GETTY IMAGES

UCLA, the top-ranked public school, came in at No. 25 overall.

WSJ/THE ranking.

UCLA's per-student academic spending is the highest of any public university in the top 100; the next highest is at the University of North Carolina, Chapel Hill, at \$34,760.

High spending doesn't necessarily lead to a strong education. Efficiency, the adoption of digital learning aids and online lectures can lower costs without hurting outcomes.

The University of Michigan spent \$26,840 per student on academics, but scored far better than UCLA on student engagement (No. 33 versus No. 119) and had a higher ranking for outcomes (No. 14 versus No. 22).

Several other top public universities also punch above their weight in terms of student outcomes, passing some exclusive private institutions.

The University of Florida, for instance, ranks 58th overall but notches the No. 30 spot for outcomes, thanks to a six-year graduation rate of 87% and low student-loan default rates.

The WSJ/THE ranking determines engagement by weighing the breadth of course offerings alongside student responses to survey questions about how challenging the curriculum is and real-world application of academic ideas.

Outcomes are calculated based on graduation rates, reputation, and salary and debt data for recent graduates.

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### THE TOP PUBLIC SCHOOLS

The state schools that achieved the highest overall ranking

1. University of California, Los Angeles
2. University of Michigan, Ann Arbor
3. University of North Carolina, Chapel Hill
4. University of California, Berkeley
5. Purdue University, West Lafayette
6. University of California, Davis
7. University of California, San Diego
8. University of Illinois, Urbana-Champaign
9. Georgia Institute of Technology
10. University of Texas, Austin

University of Virginia

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
437	East Carolina University	Greenville, NC	50.3	17.8	10.7	16.9	5.0	8.08	39,000	5.2	Public
437	Emerson College	Boston, MA	50.3	19.6	11.6	14.2	4.9	7.87	45,000	1.9	Private
437	Lincoln Memorial University	Harrogate, TN	50.3	15.5	16.5	15.0	3.3	8.26	37,000	4.0	Private
437	University of South Florida	Tampa, FL	50.3	18.3	8.0	16.4	7.6	7.98	41,000	5.2	Public
443	University of Indianapolis	Indianapolis, IN	50.1	14.6	14.4	16.7	4.3	7.78	42,000	6.7	Private
443	Louisiana State University	Baton Rouge, LA	50.1	18.7	10.5	16.3	4.6	8.20	46,000	5.0	Public
443	Loyola University New Orleans	New Orleans, LA	50.1	9.9	17.3	17.0	5.9	8.52	42,000	5.6	Private
443	University of New Hampshire	Durham, NH	50.1	21.1	9.8	16.5	2.7	8.53	47,000	2.1	Public
447	Eastern Illinois University	Charleston, IL	50.0	14.5	14.8	16.0	4.8	8.04	41,000	4.8	Public
447	Millikin University	Decatur, IL	50.0	15.4	15.1	16.1	3.3	8.24	42,000	6.8	Private
449	Southern Nazarene University	Bethany, OK	49.9	18.6	10.8	16.0	4.5	8.36	46,000	6.7	Private
449	Whitworth University	Spokane, WA	49.9	16.3	14.1	16.7	2.8	8.87	41,000	1.9	Private
451	Misericordia University	Dallas, PA	49.8	20.2	12.4	15.2	1.9	8.13	48,000	5.9	Private
451	Nebraska Wesleyan University	Lincoln, NE	49.8	19.5	12.1	16.5	1.8	8.24	45,000	2.2	Private
453	Gwynedd Mercy University	Gwynedd Valley, PA	49.7	19.1	12.2	14.3	4.1	7.82	52,000	5.3	Private
453	Martin Luther College	New Ulm, MN	49.7	21.1	12.4	15.0	1.3	8.83	40,000	0.6	Private
455	University of Alabama in Huntsville	Huntsville, AL	49.6	14.7	13.5	15.7	5.7	8.65	46,000	5.3	Public
455	McDaniel College	Westminster, MD	49.6	17.5	14.1	14.8	3.3	8.25	46,000	2.5	Private
455	Randolph-Macon College	Ashland, VA	49.6	15.7	16.4	14.9	2.6	7.22	45,000	4.4	Private
458	Hamline University	Saint Paul, MN	49.5	19.1	11.3	15.3	3.8	7.24	47,000	2.8	Private
458	University of New Mexico	Albuquerque, NM	49.5	14.0	12.3	15.6	7.6	7.08	35,000	12.7	Public
460	Clarke University	Dubuque, IA	49.4	15.5	16.7	15.3	1.9	7.60	41,000	3.3	Private
460	Maryland Institute College of Art	Baltimore, MD	49.4	13.5	15.8	14.6	5.5	7.20	32,000	3.9	Private
460	University of Massachusetts Boston	Boston, MA	49.4	14.7	11.9	14.2	8.6	6.52	46,000	5.4	Public
460	University of Texas at Dallas	Richardson, TX	49.4	17.2	9.9	14.9	7.4	7.23	50,000	4.7	Public
464	University of Alabama	Tuscaloosa, AL	49.3	18.0	11.0	16.3	3.9	8.79	42,000	5.2	Public
464	Christian Brothers University	Memphis, TN	49.3	16.9	10.3	16.3	5.7	7.72	46,000	7.2	Private
464	Hastings College	Hastings, NE	49.3	16.3	14.9	16.1	1.9	7.66	41,000	4.8	Private
467	University of Nebraska-Lincoln	Lincoln, NE	49.2	17.9	10.4	16.5	4.4	7.17	44,000	2.7	Public
468	Fairleigh Dickinson University	Tearneck, NJ	49.1	12.3	15.3	14.3	7.2	7.32	47,000	5.0	Private
468	Maryville University	Saint Louis, MO	49.1	20.1	8.4	16.8	3.8	8.15	45,000	4.4	Private
470	The University of the Arts	Philadelphia, PA	49.0	11.5	17.3	15.1	5.2	7.99	30,000	8.4	Private
470	California State University, Chico	Chico, CA	49.0	21.9	3.8	16.7	6.6	8.05	45,000	3.9	Public
470	Western Illinois University	Macomb, IL	49.0	13.0	13.7	16.4	5.9	7.82	41,000	7.1	Public
473	California State University, Long Beach	Long Beach, CA	48.9	19.2	4.1	16.8	8.8	8.01	47,000	3.5	Public
473	Eastern Nazarene College	Quincy, MA	48.9	18.8	9.1	14.5	6.4	6.63	45,000	6.2	Private
473	University of Toledo	Toledo, OH	48.9	14.3	12.3	16.5	5.8	7.54	40,000	9.9	Public
476	Arcadia University	Glenside, PA	48.8	13.9	13.6	16.2	5.1	7.63	43,000	3.5	Private
476	Marymount University	Arlington, VA	48.8	16.8	11.0	14.7	6.3	7.22	50,000	2.8	Private
476	University of Minnesota Morris	Morris, MN	48.8	16.0	12.8	14.6	5.5	7.11	39,000	6.3	Public
476	Morehouse College	Atlanta, GA	48.8	13.3	14.4	15.2	5.8	8.37	41,000	16.2	Private
476	Salem College	Winston-Salem, NC	48.8	14.7	13.7	14.5	5.9	6.54	33,000	5.1	Private
476	Truman State University	Kirksville, MO	48.8	20.8	9.6	15.6	2.8	7.92	43,000	3.1	Public
482	University of Central Florida	Orlando, FL	48.7	19.7	5.6	16.6	6.8	8.22	43,000	4.8	Public
482	University of Charleston	Charleston, WV	48.7	19.6	10.6	14.4	4.2	6.07	42,000	10.7	Private
484	Chestnut Hill College</										