2019 Building America Report

A report to communities on our social, environmental and economic sustainability progress.
About the Report

Union Pacific’s vision of Building America means we connect the nation’s businesses and communities to each other and the world by providing safe, reliable and efficient supply chain solutions that support sustainable economic growth. In doing so, we strive to serve our customers, enhance shareholder value, invest in our communities and provide promising careers, while operating in an ethical manner.

This report details progress in key areas supporting our environmental, social, and governance pillars: delivering an excellent customer experience, operating safely, strengthening communities, engaging employees and protecting the environment. We also summarize our 2019 financial performance.

We used the Global Reporting Initiative’s global sustainability reporting standards as a framework to report our most material social responsibility issues. This publication focuses on initiatives and accomplishments from the 2019 calendar year and includes 2019 data, unless otherwise noted. The impact of COVID-19 and our response occurred in 2020 and will be thoroughly detailed in the 2020 Building America Report. Information also is available at up.com.

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About the Report

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On the cover: A beautiful sunset over Union Pacific’s Yard in Phoenix, Arizona.
Letter to Stakeholders

As we close out the decade, I am more proud of the Union Pacific team than ever. Together, we celebrated the 150th anniversary of the transcontinental railroad’s completion, a moment that united our nation and the world, and enabled economic growth – roles our railroad still plays today. We took significant steps toward building a more sustainable future for everyone. And we implemented a new transportation plan that sets us up for long-term success as the safest, most efficient and most reliable railroad in North America.

Transforming our railroad wasn’t easy. As we implemented Unified Plan 2020, which incorporates Precision Scheduled Railroading principles, we found efficiencies and turned our focus to moving customers’ cars as quickly as possible. The end result is that we’re delivering a better customer experience. First Mile, Last Mile, which measures if we delivered and picked up cars to and from customer facilities as scheduled, is up 6 points to 91% from 2018. We’re driving down Freight Car Dwell to record levels, shaving off approximately 5 hours. Customers’ cars are moving 12 miles per day faster, meaning fewer cars are needed to move the same volume, and product is getting to market more quickly and reliably.

These results are even more impressive when we consider the battle with Mother Nature. Our employees performed herculean recoveries from record snowfall and sub-zero temperatures in the Midwest and Pacific Northwest, power outages in Northern California, and widespread flooding from Nebraska to Arkansas. We understand the changes in weather are real and significant, and that climate change is, in part, due to human activities.

We have a responsibility to act as environmental stewards, working to reduce fuel consumption and greenhouse gas (GHG) emissions. Moving freight by rail, instead of truck, is up to four times more fuel efficient, but we still have work to do. Union Pacific is looking for ways to reduce fuel consumption, investing in technology to improve locomotive fuel use and training employees to optimize train handling. We’re building longer trains, meaning fewer locomotives haul the same amount of freight, thus reducing emissions. Additionally, we’re setting targets through the Science Based Targets Initiative, providing us with an actionable plan to reduce emissions. We anticipate publishing our targets in the 2020 Building America Report.

There are 10 years left to meet the United Nation’s Sustainable Development Goals (SDGs); however, research reveals no country is on track to achieve success by 2030. Businesses need to get involved and take real action. The UN Global Compact dubbed 2020 as the launch of “the decade of delivery,” and Union Pacific is answering the call.

In this report, we outline our commitment to seven of the 17 SDGs – areas where we can make the most difference. We examined the top material issues our stakeholders identified in our 2019 preliminary materiality assessment, and we’re setting goals that will help us take measurable steps. The first is our commitment to a more diverse and inclusive workplace. To have the best employees, we can’t overlook any segment of the population, and our workforce must feel comfortable bringing their best selves to work every day.

I am proud to be among the more than 180 CEOs nationwide who signed the Business Roundtable’s updated Statement on the Purpose of a Corporation. It commits us to leading our companies for the benefit of all stakeholders, rather than giving one priority over another. The statement begins: “Americans deserve an economy that allows each person to succeed through hard work and creativity and to lead a life of meaning and dignity. We believe the free-market system is the best means of generating good jobs, a strong and sustainable economy, innovation, a healthy environment and economic opportunity for all.” We believe this wholeheartedly at Union Pacific.

Union Pacific has never wavered in its commitment to each of our stakeholders: employees, customers, shareholders and communities. We have a clear vision for our future – one built on safety, efficiency and reliability. Our railroad is ultimately a reflection of society. You can see it in the products we move. Society is concerned about climate change and it wants corporations to take action; it wants income equality, job creation and healthy, safe communities. In some cases, there aren’t ready-made solutions. We are designing our own roadmap, and we hope that our actions inspire others. Just as our predecessors did when they connected the nation by rail 150 years ago, we will drive real change together.

Lance Fritz
Chairman, President and CEO
Our Company

Union Pacific Railroad Company is the principal operating company of Union Pacific Corporation (NYSE: UNP). We are one of America’s most recognized companies, with a heritage of building the country and a vision to keep doing so.

Our rail network connects 23 states in the western two-thirds of the country, providing a critical link in the global supply chain. Over the last 10 years, from 2010 to 2019, Union Pacific invested $34.5 billion in our network and operations, supporting America’s transportation infrastructure and enabling economic growth.
VISION
We Build America for all generations by connecting our nation’s businesses and communities to each other and the world.

PURPOSE
The people of Union Pacific deliver North America’s safest, most reliable and most efficient supply chain solutions.

VALUES

Passion for Performance
Passion, determination and expertise drive our safety, customer experience and financial results.

High Ethical Standards
Our reputation will always be a source of pride for our employees and a bond with our customers, shareholders and communities.

Work as a Team
We work together, embrace diversity and create opportunity for all. We promote an inclusive environment where people from varied backgrounds can be their best, reflect the communities where we live and work, and deliver a competitive advantage.

FAST FACTS
32,340 ROUTE MILES IN 23 STATES
7 BORDER CROSSINGS
8.3 MILLION ANNUAL CARLOADS
7,700 LOCOMOTIVES
57,000 RAIL CARS
37,500 EMPLOYEES
30,000 RAILROAD CROSSINGS
18,000 BRIDGES
Corporate Strategy

Union Pacific’s goal is clear: Be the best freight railroad in North America. This means we’re the safest, the most reliable and the most efficient.

The “how” also is evident. Operational excellence and an engaged workforce with deep market knowledge and strong customer relationships will result in best-in-class safety, customer experience and shareholder returns.

We revised our strategy in 2018 and focused on its rollout and implementation in 2019. The six value tracks used in our previous strategy live on in our strategy wheel, providing employees a clearer picture of the railroad’s strategic intent. The following individual strategic elements work together to turn the wheel, driving Union Pacific forward:

- **Safest and Most Reliable Freight Rail Products and Services.** Everything we do must be done safely, or we don’t do it – that’s our promise to each other. We also must be reliable so customers trust we’ll deliver on our promises. Unified Plan 2020, our operating plan, accomplishes this by creating an achievable transportation plan customers can count on.

- **Highly Efficient Operations.** Driving down cost and removing waste helps us be more competitive, enabling us to enter new markets. The faster we turn our assets – whether it’s a locomotive or a freight car – the bigger the return on our investment.

- **Industry-Leading Customer Experience.** Continuously improving the customer journey provides higher levels of service and better transparency into customers’ transportation supply chains, helping them win in their markets.

- **Secure Appropriate Business.** Selling products that fit our business model versus developing boutique services builds a consistent, balanced network. We will continue finding solutions that customers value, but those services also must optimize our network.

- **Best-in-industry Cash Returns.** Each employee plays a role, from getting price on a contract to finding efficiencies in everyday work. This gives shareholders confidence in our ability to create financial returns, allowing us to invest in and grow our business.

- **Optimal Investment.** Every dollar spent must drive safe, reliable and efficient results. We invest in areas customers are willing to pay for, whether it’s improving car cycle time, updating track infrastructure on vital corridors or developing digital tools that help them plan their business.

- **Proud and Engaged Workforce.** The wheel turns when our employees work toward the same goals. It takes the best employees in the industry to become the best freight railroad in North America – we have that, and there is nothing stopping us from achieving our vision.

As we transform our railroad into the safest, most reliable and most efficient in North America, our values will continue guiding us: Our **passion for performance** will help us win; our **high ethical standards** will ensure we don’t win at the expense of any one stakeholder; and our **teamwork** will make sure we win together.
Unified Plan 2020

Union Pacific faced several headwinds in 2019, including international trade uncertainty and a 6% decline in carloadings from 2018. Despite that, we transformed our transportation plan and service product in a way that only happens once in a generation. Unified Plan 2020 is working, and it’s putting us in charge of our future. The plan implements Precision Scheduled Railroading (PSR) principles and is an important part of our objective to operate a safe, reliable and efficient railroad.

While PSR has been implemented at other North American railroads, we took a clean-sheet approach to develop our plan. We incorporated the experience and expertise of employees closest to the work, including those in the field. Unified Plan 2020 encompasses the following principles:

- Shifting the focus of operations from moving trains to moving cars.
- Minimizing car dwell, car classification events and locomotive power requirements.
- Utilizing general-purpose trains by blending existing train services.
- Balancing train movements to improve the utilization of crews and rail assets.

Our goal is to move cars faster and reduce the number of times each is touched. The end result is we’re delivering a better customer experience. First Mile, Last Mile, which measures if we delivered and picked up cars to and from customer facilities as scheduled, is up 6 points to 91% from 2018. We’re driving down Freight Car Dwell to record levels, shaving off approximately 5 hours. Customers’ cars are moving 12 miles-per-day faster, meaning fewer cars are needed to move the same volume, and product is getting to market quicker and more reliably.

Increasing train size remains one of our main areas of focus. By putting more products on fewer trains, we’re being smart with how we use our locomotives, meaning we’re using less fuel and reducing our overall greenhouse gas emissions. We’ve increased train length systemwide by 16%, more than 1,100 feet since the fourth quarter 2018.

The work our employees are doing as part of Unified Plan 2020 has been transformational and key to providing a safe, reliable and efficient service product to our customers. Their dedication to teamwork allows us to focus on high-value work and eliminate tasks that do not directly support Unified Plan 2020. We are pleased with the progress we made in 2019, and we expect to see continued improvement going forward.

WHAT DOES UNIFIED PLAN MEAN TO…

Train Crew
“Along with physically moving cars, I confirm they are on the right track and in the correct order on a mobile device. It takes time, but some rule changes make switching more efficient, and I’m proud of our team for working injury free.”
- Chris Brodigan, switchman, Portland, Oregon

Train Dispatchers
“We have the same goal as our field counterparts: Find the quickest way to move the car and keep it moving along the right path to destination. Previously, we would’ve waited for the scheduled transportation plan to do a certain pickup or set-out. Now, when there's an opportunity to move a block of cars onto a train, a request is made to stop the train to pick up those cars. We've had to expand our skill sets, constantly think ahead and be proactive. It's building a stronger team.”
- Sarah Vogel, corridor manager, Harriman Dispatching Center, Omaha, Nebraska

Engineering
“The focus on moving cars faster means we have shorter track curfews (the scheduled time when train traffic halts, allowing Maintenance of Way employees to safely work on the track). We're adjusting work schedules, collaborating with service units and being smart about time management. It takes a team effort – everyone helps each other to make the process as smooth as possible. The result is increased speed, but our biggest win is we're doing the work safely.”
- Jamie Becker, manager-Track Projects, Engineering, Columbus, Nebraska

Mechanical
“It’s all about people, parts and locomotives. If possible, we’ll do [repair] tasks outside of the shop to free it up for the heavy work. This provides space and crews, making us quicker. It's a team effort – we’re constantly communicating throughout the day.”
- Don Thomas Jr., senior manager – System Locomotive Facility, Livonia, Louisiana
Determining a Hump Yard’s Role

Unified Plan 2020 gave Union Pacific a blank slate, an opportunity to forgo precedent and design a network focused on safety, service reliability and efficiency. At the new transportation plan’s crux: sending cars deep into the network with the fewest possible touches.

“You should never touch a car more than you have to, from the customer releasing it to the car’s final destination,” said Jim Vena, chief operating officer. “When you remove touch points, you’re faster, you’re more efficient and you’re more reliable.”

This new philosophy, focusing on moving cars rather than trains, challenged the practice of routing manifest, or mixed commodity, traffic through hump yards.

FINDING THE NETWORK’S BEST FIT

It’s a common misconception that the first order of business for a Precision Scheduled Railroad is closing hump yards. The more accurate question should be: Does it make operational sense for the car to stop there?

Hump yards can serve an important purpose on Union Pacific’s network. Yards sorting upward of 2,000 cars daily are most efficient using a hump: Inbound rail cars are pushed up a hill (hump), uncoupled and rolled downhill into the bowl’s computer-controlled sorting tracks, consolidating into blocks of cars based on common destinations.

Originally built at natural traffic confluences, hump yards seem like logical pit stops. But each time a car touches a yard, it adds about 24 hours to its journey. The key to an efficient network is ensuring cars stop only when and where they need to. When a hump yard’s inbound traffic is reduced, it becomes more cost-effective for the yard to flat switch. Flat switching accomplishes the same outcome, without maintaining and using an expensive hump process.

Converting a hump yard to flat switching doesn’t physically remove the hump. Instead, inbound cars bypass the hump and are sorted by a switch crew on the yard’s trim lead or the track used to move cars from the sorting tracks to the departure yard.

Before converting switching operations, Network Planning & Operations uses modeling software to simulate transportation plan changes. This helps the team understand potential impact to mileage, transit time and train starts; visualize how many additional cars will flow into a terminal; and see how long trains coming out of those terminals will be.

Streamlining the transportation plan enabled Union Pacific to convert hump yards in Pine Bluff, Arkansas; Hinkle, Oregon; and Proviso, Illinois, to flat switching. Pine Bluff in particular is reaping the benefits. Since converting in February, the terminal steadily improved its Freight Car Productivity by reducing freight car dwell 30% in July alone versus last year.

In addition to converting some hump yards to flat switching, we stopped humping cars in Fort Worth, Texas, and Kansas City, Kansas. In some cases, we’re reducing switching at one yard and moving the work to a nearby facility.
Financial Performance

Freight railroads are the backbone of the U.S. economy, supporting the livelihoods of employees in most sectors. In fact, one job in the rail sector supports eight others across the economy. Union Pacific's diversified portfolio generates operating income and shareholder returns, further stimulating the economy.

For the full year, Union Pacific reported net income of $5.9 billion or $8.38 per diluted share, which represents a 1% decrease and a 6% increase, respectively, compared to 2018. Operating revenue totaled $21.7 billion compared to $22.8 billion in 2018, while operating income of $8.6 billion remained flat.

Freight revenue totaled $20.2 billion, a 5% decrease compared to 2018. The growth we experienced in industrial products was more than offset by fewer agriculture products, premium and energy shipments.

Given the challenging volume environment, we leveraged strong productivity to deliver solid financial results.

Risk Oversight Approach

We continuously monitor our dynamic risk management process to identify and address potential concerns, including those arising in the ever-changing economic, political and legal environments in which Union Pacific operates.

Management identifies and prioritizes enterprise risks and regularly presents them to our board of directors for review and consideration. Our chief compliance officer reports to the board on risk mitigation strategies, supported by senior executives responsible for implementing risk mitigation. We also report risk factors in our Annual Report Form 10-K.

The board's Audit Committee oversees internal audits of the company's enterprise risks. Internal auditors present their findings on mitigating controls and processes to the committee, which, in turn, reports to the board.
Board of Directors

Union Pacific works on behalf of our shareholders, employees, customers and communities to be among the best-governed companies in America. Our efforts begin with our board of directors, which is comprised of a majority of independent directors, including no more than two management directors at any given time. At year-end, our board consisted of 11 independent and one management director. Our board has four standing committees: the Audit Committee, Finance Committee, Compensation and Benefits Committee, and Corporate Governance and Nominating Committee. Each is comprised entirely of independent directors and operates under a written charter adopted by the board.

We expect directors to attend all regularly scheduled meetings, as well as their committee meetings and the annual board of directors meeting in May. In 2019, the board met six times. None of the directors attended fewer than 75% of the aggregate number of board meetings and the committees on which he or she served.

BOARD MEMBERSHIP CRITERIA

The Corporate Governance and Nominating Committee is responsible for developing and periodically reviewing the appropriate skills and characteristics required of our board members. The committee develops and recommends membership criteria to the board, including factors such as business and management experience; familiarity with the business; Union Pacific customers and suppliers; diverse talents; backgrounds and perspectives; as well as relevant regulatory and stock exchange membership requirements.

EVALUATION OF BOARD AND COMMITTEE PERFORMANCE

The Board and its Committees conduct self-evaluations annually to assess their performance. The evaluation process includes a self-assessment that invites comments on all aspects of the Board and each Committee’s process. These evaluations serve as the basis for a discussion of Board and Committee performance as well as recommended improvements.

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<tr>
<th>2019 BOARD OF DIRECTORS COMPOSITION</th>
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<tr>
<td>Number of Directors</td>
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<tr>
<td>Director Independence</td>
</tr>
<tr>
<td>Women</td>
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<tr>
<td>Minority</td>
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<td>Average Age</td>
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<td>Average Tenure</td>
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ESG Approach

Our business grows by understanding the needs of our communities and customers, and responding to those needs with dedication and commitment. Our environmental, social and governance (ESG) approach reflects this. We are committed to engaging employees in our mission, transporting products safely, providing family-supporting jobs, operating ethically, protecting and strengthening the environment, and investing in America’s communities.

Union Pacific’s chairman, president and CEO, and senior management oversee our corporate ESG strategy, and report progress to the board of directors. A cross-functional team is responsible for development and day-to-day sustainability management, while our approximately 37,500 full-time employees embrace and implement the strategy. We encourage employees to get involved and share their ideas on ways we can make a positive impact. Our stewardship is important — it’s a way to unify our diverse workforce around a single purpose.

OUR ESG GOALS

Union Pacific’s Building America Report details the company’s progress toward key pillars of our ESG strategy:

• Operating a safe, efficient, reliable and environmentally responsible rail network that delivers the best customer experience.
• Constantly improving employee and customer safety through training, education, innovation and investment.
• Developing programs and processes, making us an employer of choice.
• Growing our business profitably and responsibly so we can invest in the future and positively impact our stakeholders.
• Enabling a sustainable future by reducing our carbon footprint and helping our customers make meaningful change within their supply chains.
• Creating economic strength and improving quality of life in the communities where our employees live and work.

We track our performance toward these goals using the Key Performance Indicators (KPIs) shown in the table on page 13. Modeled after Global Reporting Initiative (GRI) standards, our KPIs align with our stakeholder groups’ priorities. Achieving success in each category directly impacts Union Pacific’s business. KPIs are updated annually in this report. Financial and safety performance results are presented during Union Pacific’s quarterly earnings calls.

BUSINESS AND INDUSTRY AFFILIATIONS

Union Pacific is a member of many national industry and business organizations, including:

• Association of American Railroads
• Business Roundtable
• GoRail
• GreenBiz Executive Network
• Intermodal Association of North America
• Midwest Association of Rail Shippers
• National Association of Manufacturers
• National Association of Rail Shippers
• National Business Group on Health
• National Freight Transportation Association
• National Grain and Feed Association
• National Minority Supplier Development Council
• National Rail Labor Conference
• National Safety Council
• Operation Lifesaver
• Pacific Northwest Association of Rail Shippers
• Produce Marketing Association
• Southwest Association of Rail Shippers
• Transportation, Elevator and Grain Merchants Association
• United Fresh Produce Association
• U.S. Chamber of Commerce
• Women’s Business Development Center
• Women’s Business Enterprise National Council
Material Issues

Union Pacific completed a preliminary materiality assessment with input from internal and external stakeholders, including customers, shareholders and community leaders. We asked respondents to rate 19 key issues on a five-point scale based on the significance of Union Pacific’s ability to impact the issue and each issue’s level of importance. The results were used to determine our highest ranking material issues. Internal and external stakeholder groups were strongly aligned on most issues. Both ranked Customer Service and Satisfaction, and Rail Safety and Maintenance as high priorities. Not surprisingly, talent issues, such as Engagement and Employment Practices ranked higher among the internal group. We are proud of our Community Ties Giving Program, which provides support to more than 3,000 nonprofit organizations; however, we were surprised that Community Involvement and Corporate Philanthropy were ranked slightly lower in importance by the external group than the internal.

The materiality assessment results help us understand what’s important to each stakeholder and allow us to align business strategy to address the most material issues. It’s clear these issues also are important to investors who want to understand where we stand on material issues. In some cases, we’re already achieving great results; however, we need to do better at sharing them with our stakeholders. We anticipate completing a full materiality assessment in 2021.
HIGHEST-RANKED MATERIAL ISSUES
A complete list of the key issues and their definitions can be found in the Appendix on page 85.

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<tr>
<th>MATERIAL ISSUE</th>
<th>DEFINITION</th>
<th>OUR APPROACH</th>
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<tbody>
<tr>
<td><strong>SAFETY &amp; SECURITY</strong></td>
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<tr>
<td>Rail Safety and Maintenance</td>
<td>Efforts to maintain quality rail infrastructure and prevent derailments, including track inspections and other measures.</td>
<td>• Our track inspection program customizes schedules and techniques to examine each rail line, mile by mile.</td>
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<td>• State-of-the-art equipment is used to regularly inspect rail lines, locomotives and cars.</td>
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<td>Emergency Preparedness</td>
<td>Measures taken to prepare for and reduce the impact of disasters, including but not limited to building relationships with emergency responders and preventing incidents involving hazardous materials.</td>
<td>• Union Pacific partners with customers, regulators and other stakeholders to conduct hazardous materials shipment inspections, sponsor training opportunities and actively participate in numerous industry initiatives focused on continuous improvement of hazardous materials shipments.</td>
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<td></td>
<td>• We provide fire departments and other emergency responders along our routes with comprehensive training on minimizing derailment-related impacts, including classroom and hands-on training.</td>
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<td>Digital and Physical Asset Security</td>
<td>Protecting the company’s critical physical infrastructure and data.</td>
<td>• Our Information Assurance team has robust processes and redundancies in place to prevent, detect and respond to potential threats.</td>
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<td>• We perform regular vulnerability scanning and system penetration testing to validate our security controls and assess our infrastructure and software applications.</td>
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<td>• Union Pacific uses Railway Alert Network materials for threat hunting and in our security awareness communications.</td>
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<td>• Employees receive annual training to identify phishing attacks and how to avoid being victimized.</td>
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<td><strong>BUSINESS OPERATIONS</strong></td>
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<td>Customer Service and Satisfaction</td>
<td>Efforts to meet or exceed customer expectations and build productive customer relationships.</td>
<td>• Our Customer Experience team uses regular surveys to track trends and analyze data.</td>
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<td>• A Customer Advisory Board is comprised of customers providing guidance on best practices.</td>
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<td><strong>TALENT</strong></td>
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<td>Employment Practices</td>
<td>Employee compensation and benefits, and the efficacy of policies and practices that maintain a healthy and safe work environment, and promote employee well-being.</td>
<td>• Comprehensive benefits program, including medical insurance, educational assistance and a 401(k). Benefits vary based on the applicable collective bargaining agreement or an employee’s non-union status.</td>
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<td>• Personalized health coaching, helping employees and their spouses manage stress, depression, smoking, diabetes, nutrition education and weight management.</td>
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<td>• Employee Assistance Program, offering all employees and their families counseling and referral services for personal or work-related problems.</td>
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<td>• System health facility program, giving employees access to gyms located near Union Pacific work sites.</td>
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<td>• A diverse mix of training to aid in retaining employees and helping them progress their career.</td>
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<tr>
<td><strong>COMMUNITY</strong></td>
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<tr>
<td>Infrastructure Investment and</td>
<td>Investing in and protecting our network infrastructure, and working with regulatory officials to align our business with the country’s infrastructure requirements and needs.</td>
<td>• Union Pacific’s 2019 capital program totaled $3.2 billion, supporting infrastructure replacement, locomotives and equipment, commercial facilities and innovation.</td>
</tr>
<tr>
<td>Protection</td>
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**Sustainable Development Goals**

These 17 Sustainable Development Goals provide a framework to achieve a sustainable future by 2030. Union Pacific has a role to play in all of them, with a focus on the seven highlighted.

**QUALITY EDUCATION**

We believe education is the essential foundation for improving quality of life. The Community Ties Giving Program supports programs that put youth on the right track. We invest in programming that emphasizes Science, Technology, Engineering and Mathematics-related careers, like those offered at Union Pacific. It’s equally important students learn soft skills that are essential for thriving in a business environment. Our funding covers educational programs for youth, middle and high school, and adult learners.

Union Pacific is the largest private donor to the National Park Foundation’s Open OutDoors for Kids program, which provides transportation, programming and free entry for students to national parks. The majority of schools served are Title I, representing minority and underserved populations. We believe it’s important for students to explore the world around them while learning about science, history, conservation and their role protecting national and local treasures.

**GENDER EQUALITY**

The treatment of others is important to us. We are taking aggressive steps to remove barriers for women in a predominantly male-dominated rail industry. We work with trade schools that encourage women to see themselves in transportation, engineering and mechanical fields, and we offer the training needed to succeed. Once in the workforce, we’re making sure they have the tools to find fulfillment at work and home, balancing the needs of their family. For example, we now offer all lactating employees free overnight shipping of breast milk through Milk Stork when they are traveling for work. The program allows employees to continue providing for their children without the added stress of getting the milk home.

**DECENT WORK AND ECONOMIC GROWTH**

Freight railroads are the backbone of the U.S. economy, supporting the livelihoods of employees in most sectors. One job in the rail sector supports eight others across the economy. We create economic opportunities for local communities through direct employment with Union Pacific, as well as prosperity created by local employee spending.

Union Pacific provides competitive compensation and benefits to approximately 37,500 employees across 23 states. We offer employment opportunities in many areas, from an office setting to working on or with trains. In some cases, a college degree or post-high school education is not required.

The Sustainable Development Goals (SDGs) were adopted by United Nations members with a target date for completion in 2030. They are aspirations aimed at all countries, governments and organizations, and with only 10 years to achieve these goals, world leaders are calling for action. Union Pacific recognizes that it’s our responsibility to act. Just as the railroad connects the nation, these goals connect the world, ensuring a better and more sustainable future for every person. We examined the SDG targets, identifying areas where we can align our business efforts to make the greatest impact.
The rail infrastructure Union Pacific maintains and operates enables growth and innovation. By helping businesses form new partnerships, provide cost-competitive solutions and source new types of raw materials, our network supports the transition toward a more sustainable economy.

INDUSTRY, INNOVATION AND INFRASTRUCTURE

Union Pacific’s capital investments represent our commitment to building a sustainable rail network that can support economic growth for generations to come. We believe the more we invest in building a safe and efficient railroad today, the better our infrastructure can serve communities going forward. By 2045, U.S. freight shipments will increase by more than 40% and America’s population will grow by 70 million.² Union Pacific has capacity to safely and reliably move additional goods, decreasing truck congestion on the nation’s already stressed highways and interstates.

From apps managing train systems to enhanced track inspection systems, we continually invest in new technologies that enhance safety, efficiency and service. We are also working to cut our carbon emissions, investing in locomotive upgrades that meet strict air quality standards and help us save fuel. Today, railroads are the most environmentally responsible way to move freight on land. On average, Union Pacific moves a ton of freight 444 miles on a gallon of diesel fuel, making us up to four times more fuel efficient than trucks.

REDUCED INEQUALITIES

Union Pacific employees have the fundamental right to fair treatment within a discrimination-free workplace. We create a work environment that respects and values differences, which is essential for employees to reach their fullest potential. We are committed to a work environment free of offensive behavior regarding a person’s race, color, national origin, religion, gender, sexual orientation, age, gender identity, veteran status or disability. This includes offensive behavior directed at employees, customers, visitors to company facilities and others who employees may contact during the normal course of work, and we hold our partners in the supply chain, as well as nonprofit organizations that we support to these same high standards.

We believe diversity, equity and inclusion is the right approach and also our responsibility. These core values must extend outside the walls of our business and into the community. We want employees to live and work in places where they feel inspired, and that means interacting with people who have different opinions, backgrounds and experiences.

SUSTAINABLE CITIES AND COMMUNITIES

Union Pacific moves the goods that families and businesses use every day, including the food we eat, the cars we drive, the chemicals to clean our water, and the steel and lumber to build our communities. We work with businesses to find solutions that decrease emissions and congestion on America’s already stressed highways and interstates.

Union Pacific generated an estimated 1.4 million tons of waste and diverted approximately 67% from landfills. We recycled about 485,000 tons of scrap metal in 2019, a higher volume than typical due to increased rail car scrapping. Metal is the second largest contributor — behind rail ties — to our success diverting recyclable materials from landfills. Steel, aluminum and copper are the most recycled materials on the planet and are found in a variety of unexpected products. From appliances to cell phones, buildings and highways, recycled materials are globally transforming construction and consumer products.

RESPONSIBLE CONSUMPTION AND PRODUCTION

Our footprint touches many diverse ecosystems, and we are committed to being a responsible steward of the land we own. We work to preserve our ecosystems, improve our resiliency and reduce our impact. This is fundamental to ensuring a healthy environment and supporting vibrant local economies.

Fuel efficiency is a critical part of Union Pacific’s sustainability approach. We have employees dedicated to finding ways to reduce consumption as diesel fuel accounts for approximately 16% of our operating expenses. Fuel efficiency and carbon emission reductions fluctuate based on business volumes and commodity mix. Fuel efficiency improves as loaded cars add weight to the overall train.

Many parts of the country experience water stress in local and regional watersheds. The U.S. Global Change Research Program notes widespread stress in much of the Southwest, western Great Plains and parts of the Northwest. Union Pacific helps protect water resources from our operations in these areas with Stormwater Pollution Prevention Plans, as well as Spill Prevention Control and Countermeasures plans at our facilities. Wastewater treatment facilities capture and treat water from equipment and consumer products.

Union Pacific used an estimated 905 million gallons of water, a decrease from 1.2 billion in 2018, and we continue exploring ways to conserve water by analyzing accounts, researching irregularities, and making changes and repairs to eliminate unnecessary use.

Union Pacific’s utility conservation projects reduced energy consumption by 2.7 million kWh, which is enough to annually power more than 247 U.S. homes. Many projects were employee-driven solutions, such as retrofitting lights with LED bulbs and upgrading air compressor systems. These solutions also provide guidance for future initiatives.

² Source: U.S. Federal Highway Administration
# Key Performance Indicators

**FINANCIAL**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported net income</td>
<td>$4.6 BILLION¹</td>
<td>$6 BILLION</td>
<td>$5.9 BILLION</td>
</tr>
<tr>
<td>Operating revenue</td>
<td>$21.2 BILLION</td>
<td>$22.8 BILLION</td>
<td>$21.7 BILLION</td>
</tr>
</tbody>
</table>

**OPERATING SAFELY**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail crossing accidents (per million train miles)</td>
<td>2.55</td>
<td>2.69</td>
<td>2.72</td>
</tr>
<tr>
<td>Reportable injury rate (per 200,000 employee-hours)</td>
<td>0.79</td>
<td>0.82</td>
<td>0.90</td>
</tr>
</tbody>
</table>

**STRENGTHENING COMMUNITIES**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital program (private funds, no taxpayer dollars)</td>
<td>$3.1 BILLION</td>
<td>$3.2 BILLION</td>
<td>$3.2 BILLION</td>
</tr>
<tr>
<td>Spend with minority- and women-owned businesses</td>
<td>$406 MILLION</td>
<td>$357 MILLION</td>
<td>$328 MILLION</td>
</tr>
</tbody>
</table>

**ENGAGING EMPLOYEES**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of unionized employees</td>
<td>89%</td>
<td>89%</td>
<td>89%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workforce diversity⁴</th>
<th>94% FEMALE</th>
<th>95% FEMALE</th>
<th>94.5% FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2% ASIAN</td>
<td>2% ASIAN</td>
<td>2% ASIAN</td>
<td></td>
</tr>
<tr>
<td>12% BLACK</td>
<td>12% BLACK</td>
<td>12% BLACK</td>
<td></td>
</tr>
<tr>
<td>72% CAUCASIAN</td>
<td>71% CAUCASIAN</td>
<td>71% CAUCASIAN</td>
<td></td>
</tr>
<tr>
<td>13% HISPANIC</td>
<td>14% HISPANIC</td>
<td>14% HISPANIC</td>
<td></td>
</tr>
<tr>
<td>1% NATIVE AMERICAN</td>
<td>1% NATIVE AMERICAN</td>
<td>1% NATIVE AMERICAN</td>
<td></td>
</tr>
</tbody>
</table>

**PROTECTING THE ENVIRONMENT**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy usage</td>
<td>41.9 MILLION MEGAWATT HOURS</td>
<td>44.5 MILLION MEGAWATT HOURS</td>
<td>40.4 MILLION MEGAWATT HOURS</td>
</tr>
<tr>
<td>Water usage withdrawals</td>
<td>1.14 BILLION GALLONS</td>
<td>1.2 BILLION GALLONS</td>
<td>905 MILLION GALLONS</td>
</tr>
</tbody>
</table>

**GHG emissions**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity per million gross ton miles</td>
<td>12.37 METRIC TONS</td>
<td>12.8 METRIC TONS</td>
<td>12.45 METRIC TONS</td>
</tr>
<tr>
<td>Locomotive fossil fuel emissions (Scope 1)</td>
<td>10,219,678 METRIC TONS</td>
<td>10,874,731 METRIC TONS</td>
<td>9,088,964 METRIC TONS</td>
</tr>
<tr>
<td>Fossil fuel emissions (Scope 1 and 2)</td>
<td>10,980,005 METRIC TONS</td>
<td>11,780,366 METRIC TONS</td>
<td>10,615,469 METRIC TONS</td>
</tr>
<tr>
<td>Employee travel (Scope 3)</td>
<td>18,406 METRIC TONS</td>
<td>17,138 METRIC TONS</td>
<td>15,405 METRIC TONS</td>
</tr>
<tr>
<td>Purchases from biomass sources</td>
<td>125,269 METRIC TONS</td>
<td>122,692 METRIC TONS</td>
<td>127,645 METRIC TONS</td>
</tr>
</tbody>
</table>

**Waste**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total waste generated</td>
<td>1.25 MILLION TONS</td>
<td>2.69 MILLION TONS³</td>
<td>1.43 MILLION TONS</td>
</tr>
<tr>
<td>Tonnage diverted from landfills</td>
<td>70%</td>
<td>71%</td>
<td>68%</td>
</tr>
</tbody>
</table>

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¹ Non-adjusted to exclude the impact of Corporate Tax Reform. See Union Pacific’s website, under Investors, for a reconciliation to GAAP.
² U.S. Population 2018 census estimates (permits reporting of more than one race): 9% Asian, 13% Black, 71% Caucasian, 18% Hispanic, 1% Native American.
³ 2018 exceeded a typical year due to rail tie and petroleum-contaminated soil disposal. We also moved to a new waste tonnage calculation process.
### Stakeholder Engagement

Union Pacific’s ESG approach requires engaging with our four key stakeholder groups to understand their evolving needs. Ultimately, we want to create competitive advantages for customers, job stability for employees, strong returns for shareholders and economic strength in communities.

<table>
<thead>
<tr>
<th>STAKEHOLDERS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMPLOYEES</strong></td>
<td>Union Pacific employees work 24/7 across our 23-state service area. We support and engage employees through the following channels:</td>
</tr>
<tr>
<td></td>
<td>• Communication from our CEO in many forms, such as online and in-person town halls with question-and-answer sessions; CEO videos covering key issues, including safety, Unified Plan 2020 and employee engagement; and a CEO blog highlighting observations from field visits and topics impacting the company.</td>
</tr>
<tr>
<td></td>
<td>• Information Television network.</td>
</tr>
<tr>
<td><strong>CUSTOMERS</strong></td>
<td>Union Pacific has strong relationships with its customers. At the heart of those relationships are multi-faceted communication efforts, enabling us to develop solutions that meet their changing needs and support growth. We engage customers through the following channels:</td>
</tr>
<tr>
<td></td>
<td>• Face-to-face, teleconference and virtual meetings.</td>
</tr>
<tr>
<td></td>
<td>• Our customer website and secure customer portal.</td>
</tr>
<tr>
<td></td>
<td>• Smartphone apps and mobile-friendly services.</td>
</tr>
<tr>
<td></td>
<td>• API integration.</td>
</tr>
<tr>
<td></td>
<td>• Track Record, our online magazine designed to help transportation and logistics professionals secure accessible, cost-effective and reliable solutions.</td>
</tr>
<tr>
<td><strong>COMMUNITIES</strong></td>
<td>Union Pacific’s business positively impacts communities by creating economic growth and development for local businesses, providing career opportunities and reducing road congestion. We seek to support communities and manage potential negative impacts through the following channels:</td>
</tr>
<tr>
<td></td>
<td>• Local public affairs representatives who regularly work with elected officials, economic development alliances, civic groups and other community organizations.</td>
</tr>
<tr>
<td></td>
<td>• Our national 24/7 emergency hotline.</td>
</tr>
<tr>
<td></td>
<td>• Event sponsorships and employee volunteerism.</td>
</tr>
<tr>
<td></td>
<td>• The Community Ties Giving Program.</td>
</tr>
<tr>
<td><strong>SHAREHOLDERS</strong></td>
<td>Clear communication with shareholders is important to Union Pacific. We engage them through the following channels:</td>
</tr>
<tr>
<td></td>
<td>• Annual reports, proxy statements and SEC filings.</td>
</tr>
<tr>
<td></td>
<td>• Our Investor Relations site, featuring upcoming events, public filings, industry reports, shareholder resources and answers to frequently asked questions.</td>
</tr>
<tr>
<td></td>
<td>• Annual Building America Report.</td>
</tr>
<tr>
<td><strong>OTHER KEY AUDIENCES</strong></td>
<td></td>
</tr>
<tr>
<td><strong>REGULATORY OFFICIALS</strong></td>
<td>Union Pacific works closely with federal and state regulatory officials to align our business with the country’s infrastructure requirements, shaping a responsible and sustainable operating environment through the following channels:</td>
</tr>
<tr>
<td></td>
<td>• Transparent compliance reports, voluntary agreements and in-person meetings.</td>
</tr>
<tr>
<td></td>
<td>• Ongoing dialogue via staff in Washington, D.C., and across our network.</td>
</tr>
<tr>
<td></td>
<td>• Participation in the Association of American Railroads (AAR) and U.S. Environmental Protection Agency’s (EPA)’s SmartWay Transport Partnership.</td>
</tr>
<tr>
<td><strong>SUPPLIERS</strong></td>
<td>Suppliers are an important part of Union Pacific’s business, helping us serve our customers and provide quality materials. We manage suppliers through our Supplier Code of Conduct and Quality program, engaging them through the following channels:</td>
</tr>
<tr>
<td></td>
<td>• Electronic commerce capabilities.</td>
</tr>
<tr>
<td></td>
<td>• Supplier performance tracking system.</td>
</tr>
<tr>
<td></td>
<td>• Supplier diversity program.</td>
</tr>
<tr>
<td></td>
<td>• Face-to-face supplier meetings.</td>
</tr>
</tbody>
</table>

### Key Awards and Recognition

Union Pacific is proud of the work we do delivering the goods Americans use every day, building a diverse and inclusive workforce, and strengthening communities. Our efforts were recognized with the following awards:

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>• Fortune’s most admired company among trucking, transportation and logistics.</td>
<td>• 2019 HIRE Vets Gold Medallion Award winner, honoring investments in recruiting and employing American military veterans.</td>
</tr>
<tr>
<td>• Ranked among the world’s largest transportation companies on the Forbes Global 2000.</td>
<td>• Selected by Texas Monthly as an inaugural “Texan by Nature 20,” recognizing 20 top Texas companies dedicated to conserving natural resources.</td>
</tr>
<tr>
<td>• Included on the inaugural list of Forbes’ Best-in-State Employers 2019 for Nebraska.</td>
<td>• Named one of Inbound Logistics’ Green Supply Chain Partners.</td>
</tr>
<tr>
<td>• Executive Vice President and Chief Human Resource Officer Beth Whited listed on Fairygodboss’ 19 Gender Equality Superheroes in 2019.</td>
<td>• Loop Logistics, a Union Pacific subsidiary, recognized with Fiat Chrysler Automobiles’ Outstanding Performance – Intermodal Carrier award.</td>
</tr>
<tr>
<td>• Named a Top Veteran-Friendly Company by U.S. Veteran’s Magazine.</td>
<td>• TRANSCAER® National Achievement Award recipient.</td>
</tr>
<tr>
<td>• Recognized as a Military Friendly Employer by GI Jobs Magazine.</td>
<td></td>
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</tbody>
</table>
The Great Race: 150th Anniversary Celebration

At noon on May 10, 1869, the “Golden Spike” ceremony began with approximately 600 people in attendance. Positioned nose-to-nose at the end of the last rail were Central Pacific’s Jupiter locomotive and Union Pacific’s No. 119. A bottle of champagne was broken over the ceremonial laurel tie while a telegraph went out across the nation with the simple message: “Done.” The transcontinental railroad was complete.

Union Pacific marked the 150th anniversary with a celebration that paid homage to our past and the remarkable achievements that connected the nation, while reminding us of the enormous responsibility we have for the country’s future. The May 9, 2019, ceremony was held at Ogden Union Station a day ahead of Utah’s celebration at Promontory Summit where the Golden Spike was originally tapped into place. Union Pacific no longer has tracks near Promontory Summit. They were removed to support the scrap metal projects during World War II.

The ceremony featured Union Pacific’s iconic steam locomotives, Living Legend No. 844 and Big Boy No. 4014. The two met, recreating the historic image taken at Promontory Summit on May 10, 1869. The Big Boy is the world’s largest steam locomotive and one of eight still in existence. It’s newly refurbished and the only one in operation, restored to celebrate this anniversary. Following the steam meet, Union Pacific Chairman, President and CEO Lance Fritz, Utah Gov. Gary Herbert and Rep. Rob Bishop were joined by Margaret Yee and Sandy Dodge to tap a ceremonial spike. Yee’s ancestors were among thousands of Chinese immigrants who forged the transcontinental railroad for Central Pacific. Dodge is a descendant of Gen. Grenville Dodge, Civil War veteran and Union Pacific’s chief engineer during construction.

Following the May festivities, the Big Boy and its Steam team spent three months touring Union Pacific’s system. Crowds gathered along the tracks, climbed trees and camped out for hours to see No. 4014. We estimate more than 1.1 million people experienced this piece of history. While some in the crowd relived memories of days gone by, a new generation fell in love with steam locomotives. It was remarkable to meet rail enthusiasts from all over the world who planned vacations just to see a Big Boy in action.

Thousands of videos and photographs captured the Big Boy on its cross-country journey. We created the Union Pacific Steam Club, which climbed to more than 44,000 members, giving enthusiasts a place to interact with the Steam team and share memories and experiences.

WHAT’S AHEAD

Union Pacific is a stronger, more agile railroad following 2019 and the work we did to change how we operate. 2020 is all about building on that strength for each of our stakeholders: employees, customers, shareholders and communities. We will continue to work toward being the safest, most reliable and consistent railroad by leveraging technology and the strengths of our employees.

We connect American businesses and communities to each other and the world, putting us in a unique position to help support the UN’s Sustainable Development Goals. Union Pacific plans to further refine our alignment, setting goals and tracking our progress to help provide a more sustainable future for every person on the planet.
Our Economic Impact

Union Pacific exists to build America. Our positive economic impact is more than just a by-product of our business; it’s central to our vision and purpose.

Our railroad connects communities and resources, generating opportunity and supporting growth in the 23 states where we operate and across the country. We create economic value not only through returns generated for shareholders, but also employment for approximately 37,500 employees, the business we give suppliers, and every business opportunity, commercial relationship and innovative idea our network makes possible.
Investing in Infrastructure

Union Pacific’s capital investments create economic opportunity through employment and supply chain activity. They also represent investments in building a rail network that supports sustainable economic growth for generations to come.

Union Pacific’s capital program totaled $3.2 billion. The more we invest in building a safe and efficient railroad today, the better our infrastructure can support communities going forward. By 2045, U.S. freight shipments will increase by more than 40% and America’s population will grow by 70 million. Union Pacific has capacity to safely and reliably move additional goods, decreasing truck congestion on the nation’s already jammed highways and interstates.

Our capital investment efforts combined with our Unified Plan 2020 initiative provide customers the opportunity to grow, boosting the local, regional and national economy. The chart on this page shows the level of capital investments Union Pacific made in 2019.

**INNOVATION**

From apps managing train systems to enhanced track inspection programs, we continually invest in new technologies enhancing safety, efficiency and service.

**NEW SIDINGS EXPAND SUNSET CAPACITY**

Five new siding extensions support smooth sailing for our customers’ goods across the Sunset Route. The line carries roughly 20% of Union Pacific’s traffic, serving as a gateway from Los Angeles, California, to the east through Arizona and New Mexico. Engineering crews installed 6,500 concrete ties and 950 track panels, and made 2,500 welds to complete the siding projects. A siding is like a passing lane; the track runs parallel to the main line with switches at both ends, allowing trains to meet and pass. Each extension averaged 7,000-7,500 feet in length, accommodating longer train lengths to support Unified Plan 2020 and efforts to reduce greenhouse gas (GHG) emissions by operating fewer locomotives. Longer sidings allow us to be more strategic with train meets, reducing main line congestion and delays. For our customers, it means service reliability.

**INTERMODAL FACILITY GETS LA-STYLE MAKEOVER**

The Los Angeles Transportation Center (LATC) Intermodal Facility is undergoing a multi-million-dollar facelift, modernizing the yard. The updates, which include reconfiguring thousands of feet of track, will significantly improve fluidity, capacity and production. While new track is going in, contractors grade the area and work on lighting and building construction. We’re also making it easier for our customers to get into the facility through an automatic gate system, and we’re adding more than 200 parking spots. These updates will help customers pick up containers faster, reducing dwell. The project is expected to be finished in fall 2020.

**INFRASTRUCTURE REPLACEMENT**

Our largest form of capital investment strengthens our rail network through track, signal and bridge replacement projects.

**LOCOMOTIVES AND EQUIPMENT**

New and upgraded locomotives, rail cars and equipment investments meet customer needs, enhance safety and reduce our environmental impact.

**CAPACITY AND COMMERCIAL FACILITIES**

New commercial facilities and network expansions increase our capacity to support economic growth and opportunities to serve new locations.

**POSITIVE TRAIN CONTROL (PTC)**

This advanced system of technologies is designed to automatically stop a train before certain accidents occur, such as train-to-train collisions and incidents caused by excessive speed or unauthorized movements.
Connecting People, Markets and Economies

Trade with Canada and Mexico supports more than 12 million jobs in the U.S. economy. It drives U.S. export growth, as Canada and Mexico buy one-fifth of everything manufacturers make in America and more U.S.-made goods than our next 11 trading partners combined.

Congressional passage of the USMCA provides the long-term certainty Union Pacific, and other U.S. businesses, need in order to leverage new opportunities in cross-border movements. It also modernizes rules to reflect technological progress and higher standards to level the playing field for job creators in the U.S. It includes enforcement for all issues, including market-opening commitments, stronger protections for our nation’s innovators, and new labor and environmental standards.

There is no doubt Union Pacific’s relationship with and support of pro-rail lawmakers, coordinated with lobbying efforts by the entire business community, played a role in ratification. Chairman, President and CEO Lance Fritz has long been a champion of modernizing our nation’s trade deals. In June, he joined JPMorgan Chase CEO Jamie Dimon, UPS CEO David Abney, Steelcase CEO James Keane and Business Roundtable CEO Joshua Bolten for a meeting with President Trump at the White House, to discuss a number of key policies and economic priorities.

The “Phase One” agreement between the U.S. and China is a step in the right direction. It includes new commitments from China to increase purchases of U.S. agricultural, energy and manufactured goods over the next two years by $200 billion in exchange for a reduction in tariffs imposed on China over the last two years. Most importantly, China agreed to end long-standing unfair trade practices, such as intellectual property theft, forced technology transfer, currency manipulation and discriminatory regulatory barriers that have historically disadvantaged U.S. companies. We’re hopeful that as negotiations continue our nation’s farmers and businesses will benefit and the additional volume will travel by rail.

IN THE NEWS

Many national news publications featured comments from Chairman, President and CEO Lance Fritz discussing USMCA, tariffs and trade with China.

Fox Business, May 2019
“USMCA is a better deal, modernizing many aspects of NAFTA. That’s a great thing, and at this point, we need to move forward.”

CNBC, June 2019
“The president’s used them [tariffs] as an effective tool to get China to the table, but I think we need to use caution as to how deep and long we use that as a tool because it will definitely create a problem with our economy.”

Yahoo Finance, June 2019
“This is something we can’t screw up. While I know our economy is largely driven by consumers, it is tightly linked to our trading partners. If you think about it this way, we represent 5% of the world’s population, 25% of the world’s wealth. A lot else is happening outside, and we must have markets available to us.”

Bloomberg, October 2019
“The industrial economy feels like it is slowing down a bit. There is a little more risk aversion, and I think a trade deal would help that; both ratifying USMCA and getting certainty in a comprehensive trade deal with China would help tremendously.”

MSN Money, December 2019
“Free and fair trade agreements are vital to economic prosperity for American workers, families and communities.”

1 Source: Chicago Region Environmental and Transportation Efficiency Program
Creating Local Economic Opportunity

Union Pacific owns and operates more than 32,000 track miles in 23 states across the western two-thirds of the U.S. We create economic opportunities for local communities through direct employment with Union Pacific, as well as prosperity created by local employee spending. Our capital investments create additional jobs and business opportunities through our supply chain. The following chart shows Union Pacific’s economic impact in the states where we operate.

<table>
<thead>
<tr>
<th>STATE</th>
<th>EMPLOYEES</th>
<th>PAYROLL*</th>
<th>ROUTE MILES</th>
<th>CAPITAL INVESTMENT*</th>
<th>IN-STATE PURCHASES*</th>
<th>COMMUNITY TIES GIVING PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARIZONA</td>
<td>1,049</td>
<td>95.1</td>
<td>691</td>
<td>226.7</td>
<td>22.8</td>
<td>135,600</td>
</tr>
<tr>
<td>ARKANSAS</td>
<td>2,243</td>
<td>208.2</td>
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*IN MILLIONS
Enabling Growth, Innovation and Sustainability

The rail infrastructure Union Pacific maintains and operates enables growth and innovation. By helping businesses form new partnerships, provide cost-competitive solutions and source new types of raw materials, our network supports the transition toward a more sustainable economy.

**IF THERE’S RAIL, CUSTOMERS WILL COME**

Two new logistics parks in Texas are providing growth opportunities for businesses that may not have benefited from rail in the past. RCR Hempstead Logistics Park, served exclusively by Union Pacific, is in Northwest Houston and opened in February 2020. Most of the city’s rail business was focused on the east side; however, more than 5 million people live within 100 miles of the new terminal. The developer believes the new park will spur business development, divert thousands of trucks off the road and provide much-needed employment in the region.

In Eagle Pass, Texas, Maverick Industrial Park abuts Union Pacific’s Clarks Park Yard, serving customers on both sides of the border. We planned for the future and, during the yard expansion, built an industrial lead that serves the new industrial park without impacting main line traffic. The facility is a cost-effective solution for customers who are looking for a facility with infrastructure already in place.

**IOWA INTERMODAL TERMINAL OFFERS GLOBAL OPPORTUNITY**

The new decade comes with a new opportunity for Iowa shippers, connecting them to the global marketplace. Valor Victoria teamed up with Union Pacific, Iowa Northern Railway Company (IANR) and Watco Companies to launch intermodal service through the newly developed Butler Intermodal Terminal in Shell Rock, Iowa. The service began in December, offering an alternative to larger Midwest rail hubs that reduces long-haul truck miles and associated GHG emissions. Union Pacific transports eastbound intermodal shipments from the ports of Los Angeles and Long Beach, and interchanges with the IANR for final delivery to the Butler Intermodal Terminal. Upon arrival, Watco manages drayage services to meet customer needs.
Generating Opportunity through our Supply Chain

Each year, Union Pacific spends billions of dollars across our network of more than 8,000 suppliers who support our operations with fuel, engineering services, construction materials and more in every one of the 23 states in which we operate. This spending represents a significant portion of the economic impact our business generates.

Union Pacific was the first U.S. railroad to establish a supplier diversity program in 1982. We recognize that strengthening and using businesses owned by minorities, women, LGBT, and veterans contributes to the economic growth and expansion of communities we serve. Union Pacific offers these businesses the maximum opportunity to compete with other suppliers and contractors in the marketplace. We assist in developing and strengthening these business relationships by maintaining active efforts to seek, identify and encourage their participation in our procurement processes.

Union Pacific purchased about $328 million in goods and services from more than 400 diverse suppliers in 37 states. Our spending with diverse suppliers grew an average of 1.3% annually from 2010 to 2019. Approximately 83% of our strategic suppliers reported purchasing goods and services from diverse suppliers, demonstrating their support for our diversity initiative.

FUELING DISASTER RECOVERY EFFORTS

Kathy Lehne was 23 years old when she started Sun Coast Resources Inc. in 1985 with just $2,000 and two employees. She wanted to purchase premium petroleum products directly from refiners and provide proven solutions to her customers. Today, Sun Coast is one of the largest woman-owned businesses in Texas and one of the nation’s largest wholesale petroleum marketers.

Headquartered in Houston, Sun Coast is licensed in more than 40 states and operates 18 offices and bulk plant facilities in Texas, Oklahoma and Louisiana. The bulk of its business is focused on providing fuel for disaster relief efforts, which included responding to almost every major hurricane in the U.S. over the past decade. Union Pacific was Sun Coast’s first fuel customer, and we are proud to continue our long-standing relationship purchasing locomotive and non-locomotive fuel. We rely on Sun Coast for delivery services to our facilities across Texas’ major cities.

WHAT’S AHEAD

Spending to harden our infrastructure, replace older assets and improve safety will be the focus of our 2020 capital investment program. We anticipate spending $2.95 billion, with an additional $150 million for strategic siding extensions, allowing us to operate longer trains and reduce GHG emissions. These sidings will support our efficiency initiatives to increase the number of long trains we can operate in each direction. Union Pacific will continue investing in capacity projects that improve productivity and operational efficiency, including investments to support intermodal operation consolidation in Chicago. PTC spending will focus on interoperability testing and an enhancement to our Energy Management System to help reduce fuel consumption.
Delivering an Excellent Customer Experience

Union Pacific moves the goods families and businesses use every day, including the food we eat, the cars we drive, the chemicals to clean our water, and the steel and lumber to build our communities. Our roughly 10,000 customers, large and small, depend on us to deliver their products in a safe, reliable, fuel-efficient and environmentally responsible manner.

In an era when making a purchase is as simple as one click and shipments can be tracked in near real-time on a phone, we are working to provide an excellent customer experience that meets these demands. Union Pacific regularly asks customers to provide feedback, which, in turn, helps us meet their evolving needs.
What We Carry

Our railroad directly serves many of the fastest growing cities in the U.S. and connects the country’s global supply chain at all major West Coast and Gulf Coast ports to Canada, Mexico and the country’s eastern gateways. Approximately 40% of our freight originated or terminated outside of the U.S.

OUR DIVERSIFIED COMMODITY MIX

Agricultural Products
If it’s on your table, chances are it traveled by train to get there. Beer, flour, tomato paste, potatoes, cheese – we transport the food that feeds the nation and many other parts of the world.

Energy
We transport the energy products that power homes, schools and businesses – coal, LPG, petroleum products, renewable energy products, wind turbines and sand for drilling.

Industrial
We carry a variety of raw materials and finished goods, including the lumber, steel, cement, pipe and plastics used to construct communities and build roads.

Premium
Our wide range of multi-modal transportation solutions offer truck-competitive rates and service schedules for domestic and international intermodal shippers, moving products such as electronics, toys, furniture and clothing. We also deliver finished vehicles and automotive parts.

Mexico Markets
We are the leading freight transportation service provider between the U.S. and Mexico, and the only railroad serving all six major Mexico gateways. Cross-border traffic with Mexico comprised about 11% of Union Pacific’s total 2019 volume.

FREIGHT REVENUE

<table>
<thead>
<tr>
<th>Commodity</th>
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<tr>
<td>Agricultural Products</td>
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</tr>
<tr>
<td>Energy</td>
<td>18%</td>
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<tr>
<td>Industrial</td>
<td>29%</td>
</tr>
<tr>
<td>Premium</td>
<td>31%</td>
</tr>
</tbody>
</table>

As the needs of our customers evolve, we rise to meet them. Effective Jan. 1, 2020, Union Pacific consolidated its business groups from four to three: Bulk, Industrial and Premium. Bulk, formerly Agricultural Products, added coal, petroleum coke markets and renewables to its portfolio. Industrial added sand, petroleum and LPG markets. Premium remained unchanged. The new structure allows us to better serve customers while remaining agile to market conditions.¹

¹ A freight revenue breakdown based on the three business groups, effective Jan. 1, 2020, is available at up.com.
LOUP LOGISTICS EXTENDS RAIL'S REACH

From left, Loup Logistics Managers Diane McPherson and Jeff Richardson pride themselves on finding new solutions that improve service and reliability.

Loup Logistics Company provides innovative transportation logistics services that help connect shippers to rail. A Union Pacific subsidiary, the company provides door-to-door transportation services, including transloading, warehousing, cross-border expertise, shipment visibility and supply chain optimization.

Why Transload?

Transloading means freight is transferred between truck and train along its journey from origin to destination. A single rail car can carry the same amount of product as three to four truckloads — and trains are up to four times more fuel efficient, meaning freight travels even further on a single gallon of gas. These efficiencies are built into the customers' transportation costs, allowing them to ship heavier loads without having to lease warehouses and equipment or be located next to the tracks.

WHAT PRODUCTS CAN BE TRANSLOADED?

- **HOUSEHOLD GOODS**
  - Floor tiles, boxes, parcels, shoes, clothing, toys, furniture, appliances, electronics

- **BUILDING MATERIALS**
  - Lumber, pipe, metals, paper, rebar, metal coil, bricks

- **OVERSIZED ITEMS**
  - Transformers, wind turbine blades, machinery, military vehicles

- **FOOD**
  - Packaged food, canned goods, frozen food, produce, seafood, cheese, chocolate

- **BEVERAGES**
  - Beer, wine, tequila, orange juice

- **LIQUIDS**
  - Ethanol, biodiesel, diesel exhaust fluid (DEF), corn syrup, petroleum, LPG

- **SMALL ITEMS**
  - Sand, plastic pellets, soda ash, flour

- **JUST ABOUT EVERYTHING ELSE**
  - Paper, solar panels, waste, feed products, Christmas trees, paint, carpet, irrigation equipment, fibers, grains, minerals and so much more
Responding to Customer Needs

Developing customer loyalty takes hard work – these relationships are built on open dialogue and regular feedback. Our Customer Experience team is dedicated to understanding what’s important to our customers and responding to those needs, whether by improving a business process or finding an innovative solution.

Customer surveys allow us to track trends and analyze data. Every month, we receive evaluations from customers who interact with local Union Pacific operations through the daily management of their rail inventory. These surveys show the direct impact of achieving operational KPIs, such as First and Last Mile performance. These metrics measure whether we arrived when we said we would and left with a customers’ goods on time.

We ask the top decision-makers of companies, representing approximately 90% of Union Pacific’s book of business, for their assessment through biannual surveys; approximately 20%-30% are returned. These surveys give customers an opportunity to provide Union Pacific perspective in areas such as operational consistency, local service, sales team effectiveness, rate comparison and service issue resolution. The scores and comments are analyzed in-house to create a Net Promoter Score that helps guide our decision-making. For example, we are laser-focused on improving our response time to customers requesting pricing options. We listened to their feedback and deployed process enhancements that improved our response speed by nearly 40%. This channel is important in helping us understand how changes in our service product, as a result of Unified Plan 2020, are being experienced by customers.

In mid-2018, we developed a Customer Advisory Board, comprised of 10-15 members representing large and small businesses and a variety of commodities. We invite board members who are leaders in their industry, and can advise us on best practices and innovative ideas that, ultimately, help enhance our service product and our customers’ supply chains.

Customers asked for increased communication. We responded with additional email communications from Executive Vice President – Marketing and Sales Kenny Rocker, providing service updates and customer announcements. We also created Track Record, an online magazine, to help transportation and logistics professionals achieve accessible, cost-effective and reliable solutions. From big ideas to the basics, Track Record helps industry leaders gain the know-how to improve their supply chain’s performance. A new edition is published weekly and pushed directly to email inboxes and on social media.
Unified Plan 2020’s Customer Impact

Union Pacific customers quickly adapted to change as we implemented Unified Plan 2020, an operating plan designed to move cars faster, increase asset utilization and improve service reliability. For our customers, it means more reliable, consistent and faster rail service that, in turn, strengthens their overall supply chain, as well as reduces transit time and costs.

Customers who operate unit trains were most impacted as we shifted those cars into manifest service. Manifest trains move different types of rail cars carrying a variety of freight from multiple shippers. Unit trains do not depart until every car is ready, and while this model may benefit some customers, the unscheduled nature and dwell time could require more resources and capital than the new model. Now, loaded cars can be billed and shipped without waiting for an entire train to be ready for departure. The same goes for unloading at destination. This first-in, first-out model keeps inventory, and supply chains, moving.

We know change can be difficult, but we are committed to up-front customer communication. In many cases, we had collaborative discussions resulting in innovative solutions that created mutually beneficial efficiencies.

HARVESTING UNIFIED PLAN 2020’S BENEFITS

As Union Pacific focuses on moving cars rather than trains and blends existing train services, several ethanol customers are reaping the benefits. For example, a terminal in Southern California now has a constant flow of cars moving in and out. In the past, customers encountered temporary outages while the facility waited for the next unit train to arrive. A unit train carries a single commodity. This created a trickle-down effect with occasional product outages further into the supply chain.

"With manifest service, we can maintain a consistent and reliable amount of inventory in the area to significantly reduce the number of outages," said Chris Kankousky, general director, Marketing and Sales. "With greater reliability, they’re engaging their customers for more business."

MAXX-IMIZING OUR IMPACT

TJX Companies, an international off-price apparel and home goods retailer, is a longstanding Union Pacific customer. Leveraging Unified Plan 2020 principles to move cars faster and reduce the amount of time they wait for departure, we enable TJX stores, such as TJ Maxx, Marshalls, and Home Goods to turn over inventory every three weeks. As a result, intermodal on-time performance improved 59% from October 2018 to October 2019. During the peak season in November and December, Union Pacific actively consolidated resources to prevent container shortages.

"We really try to understand our customers’ needs so we can create a mutually beneficial game plan," said Nick Smith, senior manager, Marketing and Sales. "We believe our resourcefulness and creativity set us apart from our competitors."
Leveraging Technology to Support Customers

Part of offering a more reliable service product is improving the customer experience, so they know what to expect and when. We’ve made excellent progress enhancing our technology to provide proactive notifications that allow customers to plan better and improve their shipping experience.

Our User Experience team meets with customers to analyze their supply chain from beginning to end, gaining an understanding of their processes and identifying gaps Union Pacific can fill with our Customer Experience tools. The team also is on hand to explain new technology and look for ways to further innovate the customer journey.

UPGO HELPS DRIVERS ACCELERATE

Two years in the making, the UPGo app is now available at all 32 Union Pacific intermodal facilities. The app is designed to expedite the intermodal terminal experience for truck drivers, helping streamline access and eliminate congestion. Drivers access the app on their mobile device before terminal arrival, confirming required information — such as the waybill — is submitted.

More than 26,000 drivers are registered to use UPGo, with 67% of high-frequency drivers (those with five or more monthly gate visits) actively using the app. We’ve also added it to our 15 Automated Gate System facilities to further expedite service for truck drivers at gates with higher volumes.

EMPOWERING CUSTOMERS ONE API AT A TIME

Union Pacific understands our customers use data to make decisions and manage their supply chains. We’re the first in the rail industry to invest in Application Program Interfaces (APIs), which allow our systems to connect, integrate and interact with our customers. They’re similar to travel advisor apps that allow you to track your flight, car and hotel reservations.

Beginning in late 2018 and through 2019, we piloted APIs that reduce manual work and streamline business transactions. For example, customers can integrate an API directly into their systems, which allows them to release rail equipment without having to log into our website. The idea is to put flexibility into our customers’ hands.

Each API is a building block, and we continue to work with customers to add API services. Whether customers interact with us on our website or through APIs that connect to intelligent personal assistants like Alexa, our goal is to ensure customers receive the same answers in easily digestible formats.

WHAT’S AHEAD

We plan to conduct third-party benchmarking to help us understand how customers perceive Union Pacific, and why they use our competitors or other transportation modes. This data will help us create a short- and long-term commercial and customer experience strategy.

We’re working with our IT Department to launch an additional suite of APIs. These services will tell customers more about their shipments — account information, location and equipment details — and help us continue growing our supply chain data integrations.
Safety is Union Pacific’s No. 1 priority. As a company, we continuously look for innovative approaches to enhance the safety of our employees, our communities and the customers we serve. Our success is measured by reportable injury and derailment rates, which are provided to the Federal Railroad Administration. We invest in training, research and development, and public education – all with the goal of increasing rail safety awareness and, ultimately, creating an incident-free environment.
Rail Safety Maintenance

Rigorously maintaining quality rail infrastructure is foundational to our ability to safely operate. It helps prevent derailments, provides a safe path for train crews and avoids shipment delays for our customers.

Union Pacific continuously inspects railroad tracks, locomotives and other equipment. Our track inspection program customizes schedules and techniques to examine each rail line, mile by mile. We inspected more than 2.5 million track miles, enough to cover our 32,000-mile network more than 79 times.

Despite efforts to strengthen our rail infrastructure, Federal Railroad Administration (FRA) reportable derailments worsened 12.7% from 363 in 2018 to 409 in 2019. A derailment occurs when at least one wheel comes off the track. In many cases, the impacted cars and locomotives remain upright. The majority of these incidents are attributable to human factors. We are targeting additional training and resources in the affected areas of our network to provide employees the necessary tools to complete their tasks. We also continue to monitor and revise train make-up and handling rules, as appropriate.

SAFETY INSPECTION FLEET

We use state-of-the-art equipment to regularly inspect rail lines. Geometry cars use an optical gauge measuring system, consisting of lasers and cameras under the rail car, to produce real-time track geometry images. The system evaluates track structure wear and tests for defects to help prevent derailments, maintain track health and increase track longevity. Union Pacific’s two evaluation cars, featuring military-grade navigation systems, cover a combined 70,000–80,000 track miles per year – enough to annually traverse our main lines at least twice.

We have four Gauge Restraint Measurement System (GRMS) vehicles positioned across our system to identify signs of wear or potentially weak spots in the track. Each vehicle is capable of testing up to 60 miles of track daily, specifically focusing on curved sections. To simulate the force generated by a locomotive, the GRMS vehicle applies 9,000-10,000 pounds of lateral force to the track. Its operator verifies and addresses any potential defect. We used GRMS vehicles to aid inspection of more than 12,500 track miles.

Union Pacific’s Precision Measurement Vehicle (PMV), designed and built by employees, is among the most advanced truck-based survey platforms in the industry. The PMV captures high-definition, 360-degree video and acquires data using an advanced inertial navigation system and under-vehicle mounted cameras. The data collected is integrated into employee training simulation models, helping familiarize train crews with territories. It also helps with system mapping by transmitting GPS locations of critical facilities, such as control points and road crossings, to Union Pacific’s Positive Train Control system. We currently use two PMV units, which together measure more than 8,000 track miles per year.

Currently in pilot testing, our Locomotive Track Geometry System attaches to a regular locomotive hauling freight. This system is capable of detecting track abnormalities, communicating in near-real time the type, severity and location to a data facility for verification and potential remediation. Using locomotives to test track geometry allows us to cover a larger footprint while evaluating conditions with an actual train. We believe this technology has the potential to cover up to 150,000 track miles per year.

AUTONOMOUS BOXCAR IMPROVES TRACK HEALTH

Union Pacific’s Engineering Department proved you don’t have to think outside of the box(car) to have an ingenious idea. In collaboration with a vendor, it created the Autonomous Track Geometry Measurement System (ATGMS) to aid in track inspection. The ATGMS is housed in a regular boxcar and powered by solar panels. It consists of GPS, a camera and laser system positioned underneath the body, and an inertial measuring pack that senses movement left, right, up and down.

Attached to a train hauling freight, the ATGMS looks for track abnormalities, communicating the severity and location to a data facility for verification. If validated, an email and voicemail go to the appropriate field manager to start the process of visual inspection and potential remediation.

Testing track more frequently makes it possible to compile data that Union Pacific’s Engineering Department can use to build predictive track models. These models help predict what may happen in different track areas in the short- and long-term, allowing maintenance and track programs to be more efficient and drive Unified Plan 2020.
Innovation at Work

At Union Pacific, we believe innovation is any change making us better. It can be a big idea leading to large-scale improvement or something smaller that impacts an employee's day-to-day activities. We leverage both high- and low-tech approaches. That can mean tweaking a process by leveraging continuous improvement tools or using an existing technology for a new purpose.

Just as important as embedding innovative thinking into our culture is understanding that not all ideas will be successful. We know some solutions take more time to develop and require multiple iterations.

DRONE INSPECTIONS

Unmanned Aerial Systems (UAS), or drones, are part of Union Pacific's safety tool kit, collecting valuable information at derailment sites and natural disaster incidents. This allows us to assess our infrastructure and respond while keeping employees out of harm's way. While we use live feeds, we also utilize drone data to create 3-D images. This helps our team find an incident's root cause and, ultimately, mitigate future issues.

Union Pacific employees with a Federal Aviation Administration (FAA) Part 107 certificate, a government requirement to commercially operate drones, are stationed in all 14 service units across our network. Through 2019, more than 250 employees received training specific to FAA regulations and Union Pacific policies, and were equipped with drones.

Union Pacific began training and supplying its police officers, known as special agents, with drones equipped with a loud speaker and thermal technology. They allow special agents to observe and speak with people trespassing along our right of way, often in remote areas. For example, a trespasser was spotted in the middle of the San Jacinto River Bridge in Channelview, Texas. In the past, the special agent had to temporarily close the track and walk on the bridge, over the water. Now, they can speak to the trespasser through a drone. The technology is also used for crowd control, general train and right-of-way inspections, as well as crime prevention and control. At year's end, 49 special agents, representing approximately 39% of the team, were using these customized drones.

CRystal Ball? No, Thanks – We Have UP Vision

The aptly named UP Vision is giving Union Pacific a glimpse into the future, arming our employees with the insight needed to proactively manage systemwide train performance. Built in-house by our IT team, the platform incorporates data from numerous sources into one easy-to-read display, color coding by performance every active train on the network.

The map loads at the system level, but employees can use filters to drill deeper and view by criteria such as location, train length, train category and stop duration. Data is automatically updated every 1.5 minutes, providing a real-time snapshot. For example, a local Operating manager can look at incoming trains in danger of becoming behind schedule and create a solution that protects the corridor's traffic flow.

“When we're reacting, the problem is often over; the cost is sunk and we don't have a chance to fix it,” said Hunt Cary, vice president-Harriman Dispatching Center, Operating Services. “Seeing it early provides an opportunity to make decisions, correcting the situation or limiting the exposure to further issues.”
TRACK REPAIR INVENTORY GOES MOBILE
Not every car traveling Union Pacific’s track carries our shield, but our employees still do their best to ensure each one operates safely and reliably. That’s where mobile billing (MoBi) comes into play. It’s an app designed to increase efficiency, allowing carmen to more easily track repairs.

The carmen use tablets or small hand-held devices to enter detailed descriptions of the maintenance performed on each car. In the past, another employee copied work notes into the computer system. Carmen say MoBi saves them time and ensures customers are accurately billed for the work Union Pacific employees do on foreign rail cars.

LEVERAGING TECH TO CHECK TRAIN PLACEMENT
Children playing at a train table mix and match cars, often putting their favorite up front, but for railroads, there’s a science to building trains. It’s called train makeup, and Union Pacific is leveraging technology already in place to ensure cars are in the correct order, so they can safely move from origin to destination. When building trains, we consider three things: operational efficiency, federal regulations (such as hazmat car placement), and the placement of loaded and empty cars (heavy and light) that could affect train handling. Taking these factors into consideration, computer modeling is used to build the roughly 700 trains that traverse our system every day.

AEI is a system used to keep track of rail equipment. Each rail car has an AEI tag – a small radio transponder located on its side containing equipment information. Employees working in railroad yards use handheld AEI devices to ensure trains are assembled in the proper order. As they travel the system, trains pass AEI readers located throughout our network and train dispatchers receive an alert if there is a placement error. He or she can then validate the error and make plans for remediation.
Positive Train Control

Union Pacific installed and implemented Positive Train Control (PTC) on 100% of required rail lines, including required passenger train routes. PTC is a complex, nationwide system of newly developed technologies that continuously relays critical information such as speed limits, train movement authorization, switch positions, work zone locations and other operational data. Visit up.com to watch a video showing how the technology works.

One of the most challenging parts of PTC implementation is ensuring system interoperability among all U.S. rail lines and locomotives. Given the various readiness levels of North American freight and passenger railroads, including publicly funded commuter lines and short lines, it is important that all railroads continue working together to maintain the health, safety, resiliency and fluidity of the rail network during PTC implementation.

Union Pacific hosts 25 freight and passenger railroads that must also achieve PTC interoperability by December 2020. Sixteen of these railroads are already compliant, accounting for 85% of Union Pacific’s interoperable PTC train miles. While our infrastructure is PTC-ready, we are working to be PTC-interoperable with the remaining partner railroads. Our expectation is that they will take necessary steps to reach interoperability on our network by mid-2020.

PTC OPERATION STATUS

With the FRA’s conditional approval of Union Pacific’s PTC safety plan on April 26, 2017, Union Pacific is running PTC operations in Arizona, Arkansas, California, Colorado, Idaho, Illinois, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, Tennessee, Texas, Utah, Washington, Wisconsin and Wyoming.

Union Pacific completed required employee training for 26,610 employees, a 100% completion. PTC education is ongoing as we retrain employees and introduce the system to new employees. Training materials are tailored to a variety of roles, including engineers, conductors, dispatchers, Maintenance of Way/Engineering, Mechanical, Signal, Telecom and IT employees.
Safely Handling Hazardous Materials

Union Pacific is obligated to transport hazardous materials by federal law, while trucks are not. Our commitment to safely haul this material is reflected in our 99.99% success rate delivering without incident.

Union Pacific focuses on accident prevention, preparedness, response and recovery. Our Hazardous Materials Management group consists of highly trained experts in hazardous material transportation safety who work with customers and inspect tank cars, ensuring products are properly secured.

PREVENTION
Through our prevention efforts, Union Pacific partners with customers, regulators and other stakeholders to conduct hazardous materials shipment inspections, sponsor training opportunities and actively participate in numerous industry initiatives focused on continuous improvement of these shipments.

PREPAREDNESS
While we work to prevent incidents, Union Pacific’s Hazardous Materials Management group regularly prepares for such an event. We do this by building strong relationships with first responders and other stakeholders throughout the communities where we operate.

Union Pacific provides fire departments and other emergency responders along our routes with comprehensive training on minimizing derailment-related impacts. We provided classroom and hands-on training to roughly 5,400 local, state and federal first-response agencies.

We also sponsored 75 emergency responders from 13 states to attend a rail-specific hazmat training center in Pueblo, Colorado. The five-day tank car safety training course focused on tank car assessments and repairs, and safely controlling hazardous material spills. Training also included a large-scale simulation of a hazardous material incident, providing emergency responders hands-on experience.

Over the last 10 years, Union Pacific trained more than 50,000 emergency responders throughout our network. We are a charter member of TRANSCAER® – a voluntary national outreach effort focused on assisting communities to prepare for and respond to a possible hazardous materials transportation incident. Union Pacific has won the TRANSCAER® National Achievement Award for 12 consecutive years.

We partner with stakeholders at the local, state, tribal and federal levels to establish geographic response plans. Conducting drills and exercises is another vital tool in preparedness. We regularly exercise our emergency response plans within our facilities, as well as with local, state, tribal and federal agencies.

Using our unique training tank cars and boxcars, we teach first responders on our system and provide various coaching opportunities and drills.

RESPONSE
If an incident involving hazardous materials occurs, Union Pacific’s Hazardous Materials Management group responds to safely and quickly mitigate any potential hazards to public health, environment and property. We do this by working with emergency response agencies and our network of specialized contractors, and by using internal resources, such as firefighting trailers and waterway spill containment systems.

All hazardous materials professionals are trained thoroughly in hazardous materials response and in the National Incident Management System. This allows for safe and effective response operations while working together with our public partners.

RECOVERY
Once an incident is under control, our hazardous materials professionals continue ensuring the communities, environment and Union Pacific’s network have properly recovered. We do this through environmental remediation and proper product handling practices. Union Pacific is capable of removing product from a damaged container and placing it into non-damaged containers. We accomplish this with our state-of-the-art transfer trucks and equipment, as well as numerous smaller transfer trailers that can safely and effectively remove liquid products. This creates a safer and more effective option for communities and reduces costs to our customers.

Union Pacific’s Hazmat team held a training exercise in Brownsville, Texas, with local fire departments, as well as Mexican firefighters.
Safety through Security: Union Pacific’s Police Department

The Union Pacific Railroad Police Department is a team of highly trained special agents dedicated to maintaining the railroad’s security and integrity. The department holds accreditation from the Commission on Accreditation for Law Enforcement Agencies (CALEA), which is considered the gold standard in law enforcement accreditation and recognizes agencies meeting the highest law enforcement standards.

The police department uses security monitoring technology to protect critical infrastructure from intruders around the clock, coordinating with U.S. Customs and Border Protection (CBP), the U.S. Coast Guard, the Federal Bureau of Investigation, the Department of Homeland Security and the Transportation Security Administration, as well as state and local law enforcement. Union Pacific was the first U.S. railroad named a partner in CBP’s Customs-Trade Partnership Against Terrorism.

Technology permeates our security program, including at international gateways, where safety and fluidity is critical. All rail cars entering the U.S. are inspected by VACIS gamma ray inspection devices. This technology is similar to an X-ray and can detect trespassers or hidden items. Additionally, cars are inspected by Union Pacific Police K-9 teams. In one case, a K-9 located more than 130 pounds of methamphetamine hidden in a rail car, which was confiscated and turned over to CBP.

Union Pacific’s special agents are an important part of the communities where we operate, educating the public about railroad safety. This occurs through joint efforts with local law enforcement agencies and at various community events, such as Back to School fairs and neighborhood gatherings.

NEW CRIME-FIGHTING TOOL

A camera mounted on a mobile trailer and flanked by solar panels may not sound high-tech, but this new crime-fighting tool is providing special agents the intelligence they need to detect and deter crime. The trailers are equipped with Thermal Radar™ that can track thermal images in rail yards and on trains without a special agent on-site to operate it. They capture images and send an alert, via email and text, to the assigned special agent in near-real time. Union Pacific police can assess the situation and, if necessary, notify local authorities to help resolve the issue. For example, train crews in Stockton, California, were noticing petty theft and vandalism. The thermal trailers provided the intel Union Pacific police needed to catch the suspects in action.
Cybersecurity

Union Pacific is committed to maintaining web users’ confidence and trust. In general, they can visit our website without telling us who they are or revealing personal information; however, customers and other users can, if they choose, participate in additional secured applications. We may use cookies, tracking pixels and IP addresses to collect information to complete business transactions, enhance our services, better meet the needs and preferences of our customers and other visitors, and enhance the security of our online and digital properties. Our detailed privacy policy is available at up.com.

DATA SECURITY

Our Information Assurance team is responsible for the confidentiality, integrity and availability of Union Pacific’s infrastructure and assets. The team has robust processes and redundancies in place to prevent, detect and respond to potential threats. We also perform regular vulnerability scanning and system penetration testing to validate our security controls and assess our infrastructure and software applications. Like many organizations our size, we are continuously probed by malicious computers around the world. In 2019 alone, the Union Pacific network was probed 355 billion times. None was successful. Extensive incident response, disaster recovery and business resumption plans are in place and tested annually, ensuring the computing environment can withstand a wide range of scenarios.

Following the Sept. 11, 2001, terrorist attacks, the rail industry developed a security plan that includes a comprehensive blueprint for security enhancement and risk mitigation actions. It applies a unified, risk-based and intelligence-driven approach to rail security. In coordination with our industry partners, we regularly exercise and enhance cybersecurity prevention and incident response plans.

DATA PROTECTION

Union Pacific is committed to protecting the security and confidentiality of our data and that of our customers, employees and contractors. Although the U.S. has not enacted widespread regulation, such as the European Union’s General Data Protection Regulation, a patchwork of state laws and regulations govern personal data collection and use. Union Pacific developed a program to comply with the California Privacy Act, the most comprehensive state law, which took effect Jan. 1, 2020. Specifically, Union Pacific worked to increase transparency around our data collection and use procedures to enhance our ability to respond to inquiries and requests regarding a person’s data.
Keeping Employees Safe

Our safety performance did not measure up to the last three years’ record-setting performances. The employee reportable injury rate, measured by the number of injuries for every 200,000 employee-hours worked, increased nearly 11% to 0.90 compared to 2018, despite the decrease in the number of personal injuries due to reduced volume. Half of the injuries were sprains and strains. We are committed to engaging with employees to talk about being attentive to risks they may encounter in their daily work.

Two of our employees did not return home, and that is unacceptable. Their deaths impacted their families, communities and our Union Pacific family. We honor their memory by working toward an injury-free railroad. Union Pacific continues to improve technology, enhancing processes and fostering a culture focused on operating safely.

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SAFETY FIRST: WHAT WOULD YOUR FAMILY DO WITHOUT YOU?

In September, we asked employees systemwide to stop their work and have candid, thoughtful discussions about how to make their workplace safer. The Safety Stand Down began with a powerful video featuring employees who felt firsthand the impact of losing a team member. For some, their words were tough to get out. Others were on a mission, hoping their message – what would your family do without you – compelled employees to change behavior. One thing was true for all: they never thought it would happen to someone they knew.

“Familiar environments can reduce the perception of risk,” said Tom Lischer, executive vice president-Operations. “While we understand there is no intent to be unsafe, we must get back to the fundamentals, eliminate distractions and focus on the job at hand, preventing ourselves and our co-workers from getting hurt.”
COURAGE TO CARE AND TOTAL SAFETY CULTURE

Our employees are our eyes and ears – they identify risks, initiate action to mitigate those risks and work to keep each other safe. Courage to Care, a voluntary commitment made by Union Pacific employees since 2012, empowers each person to look out for their peers and “stop the line” on any operation that could result in an incident. We encourage employees to have candid safety discussions and share experiences to learn from each other.

Total Safety Culture complements these efforts. The employee-owned, voluntary process includes training, observations and feedback. Employees recognize each other for safe behaviors while intervening in a positive way to address at-risk actions.

WHO YOU GONNA CALL? OPCC

Ever need to “phone a friend” to ask a work-related question? Rather than going through a manual, Operating employees can now call a 24/7 help desk to receive immediate, job-specific answers from their experienced co-workers. The Operating Practices Command Center (OPCC) provides employees with accurate and consistent information, and ensures that safety protocol complies with local, federal and companywide standards across all 23 states where we operate.

OPCC members also are responsible for monitoring operating practices from both a technological and safety standpoint. From Union Pacific's headquarters building in Omaha, Nebraska, they’re able to connect remotely to onboard systems and contact train crew members via radio, as a standard field manager would do. When there are issues, such as a derailment, the OPCC can use incident reports to help determine if mechanical issues played a role and help mitigate future risk.

MONITORING PERFORMANCE AND EMBEDDING SAFE BEHAVIOR

Union Pacific uses video technology across our locomotives and vehicles to monitor engineers’ and drivers’ performance, ensuring safety, security and situational awareness. On the vast majority of occasions, this proactive performance sampling validates and confirms our employees’ professionalism. It also increases our in-depth understanding of people’s response to different situations, enabling us to improve coaching and embed safe behaviors.

Most of our locomotives are equipped with in-cab cameras. We installed in-cab cameras inside approximately 600 locomotives, increasing the total number of equipped locomotives to more than 6,300. These complement external-facing cameras, providing a complete view of incidents. We also capture event recorder data such as train speed, throttle position, brake settings and horn use.

Many Union Pacific vehicles are equipped with DriveCams positioned below rearview mirrors to record 12-second video clips triggered by driving events such as hard braking, swerving or excessive speed. DriveCam captures images from eight seconds before an incident occurs to four seconds afterward, enabling trained, third-party personnel to analyze root cause of unusual driving behaviors.
Public Safety

Keeping our communities safe involves proactive outreach to raise awareness and prevent risky behavior near railroad tracks, but we can’t do it alone. We rely on our employees to be safety ambassadors in the communities where they live and work, and we collaborate with local law enforcement partners.

Approximately 95% of nationwide rail-related fatalities and injuries occur at railroad crossings or as a result of people trespassing on or near the tracks. Nearly all are preventable.

ENGAGING COMMUNITIES THROUGH UP CARES

Risky behavior near railroad tracks has sobering consequences, and the devastating outcome is something no one should witness. Our UP CARES program recognizes that the most compelling arguments for staying safe are often those delivered face-to-face. Our employee volunteers deliver rail safety presentations to pedestrians, motorists and professional truck drivers across our 23-state network. To request a safety presentation, visit up.com.

In 2019, 55% of crossing incidents occurred at crossings with active warning devices, and 22% of incidents were the result of drivers going around or through the crossing while warning devices were activated. Investigations reveal risky or distracted driving was the cause. UP CARES addresses this by partnering Union Pacific’s special agents with local and state police departments to observe driver and pedestrian behavior. Our goal is not to write tickets, but to have meaningful conversations that change behavior.

NATIONAL RAIL SAFETY WEEK

In celebration of National Rail Safety Week Sept. 22-28, Union Pacific partnered with several law enforcement agencies and communities across our 23-state system to share life-saving messages, reminding drivers and pedestrians to use caution every time they cross the tracks.

We joined forces with National Transportation Safety Board (NTSB) member Jennifer Homendy, Safe Kids Worldwide, Metra, DuPage Railroad Safety Council and the City of Elmhurst to hold a safety event at the Metra Station in Elmhurst, Illinois, encouraging parents to talk to their children about rail safety. Illinois, along with Texas and California, has the greatest number of fatal and nonfatal injuries for pedestrian and vehicle-related incidents at railroad crossings. We believe teaching children about rail safety should go hand in hand with educating them about how to look both ways before crossing the street. Parents are encouraged to share and model these five behaviors:

- Only cross the tracks at a designated railroad crossing, marked by a sign or lights and gates.
- If lights are flashing or the gate is down at a railroad crossing, wait for the train to pass completely and the gate to go back up before crossing. It is never ok to try and beat the train.
- Don’t be tempted to walk on or along the tracks. Trains are at least 3 feet wider than the tracks on either side.
- A train can take up to a mile to stop. By the time the locomotive engineer sees someone or something on the tracks ahead, it is too late to stop.
- If you are using a cell phone, headphones or playing a game, remember: heads up, devices down when you cross the tracks.

From left, Lisa Stark, assistant vice president—Public Affairs, Union Pacific; Jennifer Homendy, National Transportation Safety Board member; Bruce Marcheschi, chief operating officer, Metra; Dr. Lanny Wilson, DuPage Railroad Safety Council; and Torine Creppy, president, Safe Kids Worldwide, share important safety messages at a news conference.

1 Source: Association of America Railroads
RESPONDING TO INCIDENT REPORTS

Union Pacific’s Response Management Communications Center (RMCC) processes emergency and non-emergency calls from communities across our 23-state network. The RMCC team operates 24/7, responding to emergencies, reports of vehicles stuck on railroad tracks, criminal activity and other concerns. On average, a single dispatcher may take 70-plus calls in an eight-hour period. Drivers and pedestrians can contact the RMCC by using the phone number posted near railroad crossings, 888-UPRR-COP (877-7267).

In addition to working with citizens, employees and public officials, RMCC dispatchers occasionally take unusual calls, such as requests from the Secret Service motorcade teams when transporting the president on or near Union Pacific property. The RMCC team also plays an integral role in tracking and coordinating inspections of military shipments across the network. When dispatchers aren’t taking calls, they are responsible for compiling and auditing reports, and providing notifications to state and federal regulatory agencies.

In 2016, the CALEA awarded a second distinguished accreditation to our RMCC team, recognizing an advanced standard of compliance across policy and procedures, administration, operations and support services. We are in a four-year cycle of accreditation maintenance and will qualify for our third distinguished accreditation in 2020. RMCC is one of only 100 public safety communications centers worldwide recognized for emergency response and professional excellence in this way.

HOMELESS SAFETY AWARENESS

Union Pacific owns and operates more than 32,000 track miles, many of which are in communities that have experienced a significant increase in their homeless populations. Despite our efforts, unlawful encampments are set up on our right of way, along with dumping, graffiti and other illegal activities by third parties. Homelessness is a growing social problem that state and local governments are struggling to get their arms around.

Our highest priority is the safety of our employees and the communities we serve. Trespassing on railroad property is unsafe and creates a hazard for the public, as well as for Union Pacific employees. On Nov. 13, Union Pacific and the City of San Jose, California, launched a safety awareness and citywide cleanup effort that ran for several weeks, focusing on areas along our tracks. This joint effort with the city was a pilot approach to address homeless encampments on our right of way with the goal of reducing illegal activity and improving public safety. In Santa Ana, California, we added another layer to our efforts by partnering with a nonprofit outreach group to offer community services to the people displaced by our encampment strategy. Following these successful partnerships, we implemented similar clean-up and assistance efforts in a number of communities across California.

Our special agents periodically patrol Union Pacific property and work with local contractors to prevent recurrence of encampments and illegal dumping. We also work with local authorities to enforce criminal trespass laws on our property and to deter other illegal activities. We are aware these enforcement efforts may further displace homeless individuals; however, we work collaboratively with local communities and service organizations to connect displaced individuals to existing services that can help them find a safe place to go away from active railroad tracks.

WHAT’S AHEAD

Union Pacific will continue leveraging technology as we work toward our ultimate goal – operating in an incident-free environment. For example, Union Pacific is studying emerging technology to determine the best future use of drone technology for safety, security and efficiency across the railroad.

We continue to encourage community leaders to work with us to identify long-term solutions to solve the homelessness crisis. We are coordinating with local California agencies to find safe housing and are launching partnerships with City Net, a street outreach organization in the Los Angeles area, and Mercy House, a nonprofit organization that provides rapid response rehousing services and individualized plans for long-term success to support those experiencing homelessness.
Communities are one of Union Pacific’s key stakeholders, and we are committed to serving and investing in their futures. We take tremendous pride in our relationships and efforts to improve the communities where we operate through the Community Ties Giving Program and volunteer efforts. We supported more than 3,000 nonprofit partners, donated $22 million to community efforts, and our public affairs representatives are members of more than 170 local civic organizations, such as chambers of commerce and economic development organizations. The results are safe, prosperous and vibrant communities where people want to live and work. In the two years since we redefined our philanthropic pillars to focus on safety, workforce development and community spaces, we’ve served 36 million people, 13 million of which are in underserved populations. We believe our impact has a ripple effect and the potential to change future generations.

Union Pacific’s lines of communication are open to local and state agency officials, neighborhood groups and local citizens. Our public affairs representatives facilitate resources and address operations-related concerns reported directly through our 24/7 community line and website.
The Community Ties Giving Program

Union Pacific's charitable giving programs have helped thousands of nonprofit organizations achieve their missions since 1959. Funding allocated by the Community Ties Giving Program ranges from $2,500-$25,000 for organizations receiving local grants, and up to $3 million for multiyear key partnerships.

The ethical treatment of others is important to Union Pacific. We updated our Anti-Discrimination Policy, reflecting our dedication to work only with nonprofit organizations that do not discriminate based on a person's race, color, sex, ethnicity, national origin, age, disability, religion, past or present military service, sexual orientation, gender identity and/or expression, genetic information, pregnancy, political affiliation, marital or familial status, or any other status protected by law. Organizations must be willing, if asked, to attest that they prohibit discrimination on these grounds.

Union Pacific understands each community has its unique challenges and opportunities. The programs we support align with one or more of our social impact goals related to safety, workforce development and community spaces. Together, our work in these areas builds safe, prosperous and vibrant communities—places people want to be.

SAFETY

Communities thrive when residents feel safe. Union Pacific is committed to helping communities prevent and prepare for accidents and emergencies, helping everyone go home safely at the end of each day. This reflects our commitment to employee safety and the communities through which our railroad passes. We prioritize funding for programs that achieve the following objectives:

- Encourage safe behaviors and prevent accidents through education and awareness, particularly projects focused on rail, driver, bike and pedestrian safety.
- Eliminate risks and improve safe access to community spaces through infrastructure improvements. Examples include signage, proper lighting and public trail upgrades.
- Prepare and equip residents and emergency responders to effectively respond to incidents and emergencies, if or when they occur.
- Prevent crime and violent incidents through efforts addressing the root causes and seeking to mitigate their occurrence.
- Provide homeless and at-risk populations access to safe shelter and services that ameliorate and prevent homelessness.

SAFETY SPOTLIGHT

Safety Messages Transcend Language Barriers

Union Pacific is bringing rail safety to St. Paul and Minneapolis, Minnesota, with a multilingual campaign designed to make rail safety a universal language. In partnership with Twin Cities Public Television (TPT), 16 different safety messages related to pedestrians, drivers, truckers and the community, broadcast at least twice every 30 minutes on TPT NOW, a 24/7 TV broadcast, and on a live web stream. The English message is immediately followed by the same information translated into Spanish, Hmong and Somali. TPT NOW is a regional channel reaching about 1 million households in the Twin Cities, where for many, English is a second language. We will continue building on our partnership in 2020, creating rail safety videos in English, Spanish, Hmong and Somali encouraging parents to have these important conversations with their children.

One of the campaign's safety messages translated into Spanish, reminding drivers to always expect a train and never go around the crossing gate.
WORKFORCE DEVELOPMENT
For nearly 160 years, Union Pacific has helped stimulate growth in cities and towns across the nation by training and providing employment to thousands of workers. We believe a skilled workforce and access to jobs paying good wages are essential elements for a prosperous community. We prioritize funding for programs that seek the following objectives:

• Put youth on the right track by creating awareness of family-supporting jobs, such as those offered by Union Pacific, and building foundational skills, specifically in Science, Technology, Engineering and Mathematics-related fields, as well as necessary technical and life skills to begin a trajectory toward these careers.

• Raise awareness of, educate and prepare young adults for middle-skills jobs through community colleges, vocational and career training programs, workforce readiness initiatives and programs assisting with job placement and/or on-the-job experience.

• “Up skill” the existing workforce by providing training and resources enabling workers to reach the next level in their careers.

• Provide training and mentorship for nonprofit professionals, helping them grow and advance their organizations.

COMMUNITY SPACES
Vibrant communities attract businesses, tourists and skilled workers. We seek to ensure residents within our communities have access to special places celebrating cultural diversity, artistic expression, our natural environment and the social interactions enriching their lives. We believe such community spaces contribute to the distinct identity of cities and towns. We prioritize funding for programs and projects that meet the following objectives:

• Create, sustain or expand upon artistic and cultural experiences offered to a broad and diverse audience. For example, museums, theaters, libraries, concerts and lectures.

• Preserve and share a local community’s unique history, including projects related to trains and/or Union Pacific history.

• Provide clean, safe and positive outdoor recreational and/or educational opportunities fostering an appreciation for our natural environment.

• Beautify neighborhoods and main street areas to improve livability, promote commerce and, ultimately, attract more residents, businesses and visitors.

• Plan for, create or enhance unique spaces reflecting a community’s character, and diverse needs and desires.

WORKFORCE DEVELOPMENT SPOTLIGHT
Database Aims To Stop ‘Brain Drain’
It’s a problem many states face – youth leaving for high-tech jobs on the coast. The Missouri Chamber of Commerce created Missouri Internship Connect in an effort to stop this so-called “brain drain.” It’s a free, statewide internship-matching software program connecting employers to high school and college students. The idea is to help young people recognize the powerful opportunities that exist in their home state. It also gives students, especially under-served and minority students, a way to connect with future employers, learn valuable business skills and get a head start toward achieving their career goals.

COMMUNITY SPACES SPOTLIGHT
Young Artists Orchestra
It’s a program that began with 22 students playing Mozart’s “Adagio and Fugue in C minor.” Today, the Young Artists Orchestra in Las Vegas, Nevada, is home to more than 130 artists under the age of 22. The only tuition-free music program in Nevada, students make up a string orchestra and symphony orchestra, playing over 15 concerts and events per season. Thanks to funding from the Community Ties Giving Program, the program can expand, offering additional tuition-free, after-school programs for local youth through a newly created percussion ensemble and chamber orchestra while also offering mentorship and collaborative opportunities with professional local and guest artists.
Our Impact

$22.2M Community Investment

- 1,750 Community buildings constructed or enhanced.
- 300 Green spaces created or enhanced.
- 800 Public spaces cleaned.

$6M Community Spaces

- 728,000 Trained in job skills.
- 11,000 Job placements.
- 664,000 Hours of career-related classroom training provided.

$4M Workforce Development

- 2,000 Emergency services equipment procured.

$2.9M Safety

- 90,000 Trained in safety procedures.
- 29,000 Hours of safety training.
- 2,000 Emergency services equipment procured.

$5.6M Local Community Support

- Corporate Sponsorships, Memberships and local needs grants.

$3.7M Matching Gifts

- GivePlus and FFEG

3,000 Organizations Reached

19M Individuals Served

6M Individuals served from underserved populations

19M Individuals Served

3,000 Organizations Reached

6M Individuals served from underserved populations
Key Partnerships

From local grants to key partnerships, our philanthropic outreach aligns with Union Pacific's long-standing commitment to Building America. Key regional and national partnerships provide large-scale, targeted grants intended to achieve significant, measurable and sustainable impact in our communities while supporting Union Pacific's key areas of giving in safety, workforce development and community spaces.

NATIONAL PARTNERS

Following a nationwide search in 2017, Safe Kids Worldwide, Local Initiatives Support Corporation (LISC) and the National Park Foundation were selected as national key partners, each receiving $1 million annually in 2018 and 2019. Our partnership with these world-class nonprofit organizations continues into 2020 with an additional $1 million in funding for each group. Together, we empower communities to create a safe place for children and families, bring economic prosperity and well-being to our neighborhoods, and encourage exploration of our country’s greatest treasures – national parks.

SAFE KIDS WORLDWIDE

Safe Kids Worldwide is a nonprofit organization working to prevent childhood injury, the No. 1 cause of death for children ages 0-19 in the U.S. Our partnership with Safe Kids Worldwide is designed to reach a full continuum – from preschoolers to K-12 youth, and parents – with research-based education and messaging designed to reduce risky behaviors that lead to rail-related incidents.

We funded new research, Railroads: An Often-Overlooked Danger to Children, that found the majority of parents do not talk to their children about rail safety despite data that shows a child dies every five days in a rail-related incident. The research served as a foundation for a social media campaign and National Rail Safety Week initiatives designed to raise awareness and provide parents with the lifesaving information they need.

Building on the success of our book launch in 2018, Clifford the Big Red Dog made several appearances at schools and community events across Union Pacific’s system, including events in Chicago, Illinois, and San Antonio, Texas, when Big Boy No. 4014 – the world’s largest steam locomotive – made its historic visit. Safe Kids Worldwide and Union Pacific employees discussed rail safety with children, teachers and parents, and copies of “Clifford and the Railroad Crossing” were available. The big star was Clifford himself, who took photos with fans of all ages.

LISC

Union Pacific is partnering with LISC to invest in American workers and an economic future based on quality jobs. This collaboration is an important tool to help build pathways for diverse, underserved individuals to find family-sustaining careers, as well as build a skilled pipeline for in-demand jobs in the rail industry and beyond.

Our partnership is fueling the Bridges to Career Opportunities (Bridges) program, which helps participants build foundational literacy, math and technical skills that allow them to qualify for training and credentialing programs that can lead to living-wage jobs. The curriculum is tailored to local growth industries and includes “soft skills” that are necessary for success in a work environment. The Bridges program is part of an integrated set of services offered by LISC Financial Opportunity Centers (FOCs), a network of career and financial coaching service centers across the country. Union Pacific is specifically focused on FOC programs in Chicago, Illinois; Kansas City, Missouri; Houston, Texas; and Los Angeles, California.

We worked with LISC to develop a contextualized curriculum focusing on careers in the Transportation, Distribution and Logistics industry, including rail. The new curriculum will be deployed in 2020 and exposes participants to industries and career paths they may not have known about otherwise, and is designed to advance students’ reading, writing and math skills. Our employees participated in several panel discussions with local LISC chapters, discussing topics ranging from financial independence to the importance of public-private partnerships. We also participated in networking events with students, helping them make connections and giving our employees a chance to volunteer in their communities.
NATIONAL PARK FOUNDATION

Our history with the national parks started when the railroad provided access to pristine landscapes that were otherwise virtually impossible to visit, giving way to iconic places including Yellowstone, Zion Grand Canyon and Death Valley. We were pleased to renew our partnership under the theme “Explore America’s Backyard,” encouraging younger and more diverse populations to visit national parks and bring awareness to lesser-known parks – the ones in our own backyards.

Approximately half of our funding supports the National Park Foundation's Open OutDoors for Kids (OOK) program. We supported approximately 41,400 students with visits to 25 national parks in 12 states. We believe it’s important for students to explore the world around them while learning about science, history, conservation and the role they play in protecting national and local treasures. Union Pacific’s contribution constituted 21% of the total OOK budget, making us the program’s largest private donor for the second consecutive year.

For more than a century, national parks have served as the backdrop for family photos. Between Memorial Day and Labor Day, Union Pacific and the National Park Foundation invited park-goers to recreate a vintage park photo as part of the Wonder + Wander Photo Challenge, highlighting the timelessness of adventures enjoyed in America’s national parks. Of the more than 1,700 entries, 10 winners were selected to receive an America the Beautiful National Parks and Federal Recreational Lands Pass.
REGIONAL PARTNERS

Regional partnerships are granted by invitation only and, like our national partnerships, are often multiyear commitments designed to provide long-term impact in our communities. We want to work with organizations with whom we can explore big ideas, build powerful momentum within our communities and achieve significant, lasting impact across Union Pacific’s network.

TEXAS A&M TRANSPORTATION INSTITUTE

Teen and young adult drivers experience the highest rate of transportation-related fatalities. In an effort to change the statistics, Union Pacific is working with the Texas A&M Transportation Institute’s Youth Transportation Safety (YTS) program, which focuses on promoting safe driving habits. We worked together to create new materials focused on rail, bicycle, and pedestrian safety. The new YTS program reached students in nearly 70 schools, encouraging students to put their device down and pay attention to their surroundings. An updated “Teens in the Driver Seat” app is under development to improve and encourage these safe behaviors. A teen driver starts the app before a trip and – as long as they don’t access their phone while driving – logs undistracted miles at the end. Points are awarded based on safely driven miles and prizes are offered.

CITY NET

Safety will always be Union Pacific’s top priority. At the invitation of Union Pacific employees, Union Pacific launched a partnership with City Net, a street outreach organization in Los Angeles, California. City Net professionals assist vulnerable populations experiencing homelessness through a set of Continuum of Care programs. With our support, City Net will reach out and engage those living on or near Union Pacific property, safely connecting them with housing, medical and other services. These clients will be enrolled in an individualized program tailored to their needs, with the ultimate goal of helping them secure a safe, permanent residence. We believe this partnership will help prevent rail-related incidents while encouraging the health and safety of vulnerable populations.

Teens in the Driver Seat held its annual Safe Driving Summit in San Marcos, Texas, bringing youth together for a weekend of leadership workshops, expert presenters and educational exhibits.

City Net provides help and transportation for those needing temporary shelter and other services.

1 Source: Youth Transportation Safety Program
ASSOCIATED INDUSTRIES OF ARKANSAS

For years, graduating high school seniors have been encouraged to pursue a college degree, which, in part, contributes to a decline in the number of talented people considering skilled technical professions as a viable career path. In September, Union Pacific joined the Arkansas State Chamber and Associated Industries of Arkansas Foundation to unveil the updated Be Pro Be Proud Mobile Workshop, designed to inspire and create the next generation of skilled professionals. The new, 53-foot mobile unit gives students hands-on exposure to 12 in-demand professions that do not require a college degree, such as welder, machinist and electrician. It features a mini locomotive, equipped with a simulator that puts students in the locomotive engineer’s seat traveling a stretch of track in Arkansas. Union Pacific is sponsoring the new trailer as it tours the state visiting schools, companies and events that showcase skilled trade professions.

Since its launch, Be Pro Be Proud has reached more than 80,000 students. The new workshop allows the program to access 29% more students every day. We anticipate Be Pro Be Proud expanding into other states across the U.S.

CHICAGO COOK WORKFORCE PARTNERSHIP

Union Pacific is working with the Chicago Cook Workforce Partnership’s Opportunity Works program in Chicago, Illinois, giving young adults the resources they need to find a family-supporting job. For the second year, we hosted a group of interns, providing job shadow opportunities with our Engineering, Mechanical, Transportation and Workforce Resources employees. Interns helped replace a railroad tie, test gauges and perform locomotive maintenance. They also participated in mock interviews and received valuable feedback on their performance and skills. Prior to spending time at Union Pacific’s facilities, the interns attended an intense program that included fundamental skills training such as money management, scheduling and personal hygiene, as well as OSHA and forklift instruction. Career exploration with Union Pacific was followed by a second intern experience at another company in the Transportation, Distribution and Logistics industry, further showcasing careers in high-growth, high-demand sectors that serve as Cook County’s economic engine.
JUNIOR ACHIEVEMENT OF UTAH

In this digital era, a skills gap is making it difficult for some students to enter the workforce. Junior Achievement of Utah and Union Pacific are working together to put youth on the right track, enhancing foundational skills in finance, STEM, life skills and career awareness through gaming. JA City is an interactive, hands-on learning facility with the feel of an actual community, featuring 25 businesses. New to JA City is an exciting new Union Pacific installation. The locomotive holds two monitors where JA students can try their hand at three interactive safety inspection videogames. Those who succeed will become a JA City certified Union Pacific Safety Engineer.

WESTSIDE COMMUNITY SCHOOLS FOUNDATION

Interactions or experiences in our youth often drive future career selection. Westside High School students in Omaha, Nebraska, are experiencing what a career in welding means. The Westside Community Schools Foundation’s newly expanded, state-of-the-art welding, fabrication and manufacturing lab allows 240 students per year to participate in the program and have flexible space for lectures and group activities. They also receive access to mentorships and hands-on experience through strategic partnerships with local businesses, including Union Pacific. The purpose is to create awareness about trade positions that lead to family-supporting jobs.

THE UNION PACIFIC DIVERSITY SCHOLARS PROGRAM AT CREIGHTON UNIVERSITY

Union Pacific and Creighton University are teaming up to create a diverse and inclusive culture and build Omaha’s future workforce. Launching in 2020, the Union Pacific Diversity Scholars Program at Creighton University will create access to academic merit scholarships and professional development opportunities for minority students over a four-year period. During their freshman year, students will be paired with Union Pacific mentors. As the scholars advance, they will engage in peer-to-peer mentoring, connecting with community partners to grow their professional networks. Junior and senior students will apply to Union Pacific’s internship program for a chance to explore career opportunities at the railroad. At the conclusion of their college education, 32 Union Pacific Diversity Scholars will be uniquely prepared to enter Omaha’s workforce.
BOYS & GIRLS CLUB OF PLACER COUNTY

Union Pacific believes that building prosperous communities includes ensuring the safety and wellbeing of children. The Boys & Girls Club of Placer County in Roseville, California, works to empower young people to unlock their full potential as productive, responsible and caring citizens. Together, the Boys and Girls Club and Union Pacific are building a new clubhouse where up to 3,700 vulnerable students can participate in after-school programming. The Union Pacific Railroad Clubhouse will host a variety of programs geared toward developing the mind, body and soul of the kids and teens the Boys and Girls Club serves. The neighborhood clubhouse is expected to be completed in December 2020.

DENVER ZOO

Like Union Pacific, Denver Zoo is a central chapter in Colorado’s story. It is one of America's oldest public zoos and still features structures dating back to the early 20th century. Denver Zoo’s train station is at the historic heart of its campus, offering rides to more than 270,000 train riders each year. In addition to fun facts about animals such as Asian elephants, rhinos and gorillas, the train's conductor shares important rail safety reminders with passengers. Signs at the train depot and across the park encourage visitors to consider how they interact with trains and tracks, and practice safe behavior at the park’s rail crossings.

OREGON MUSEUM OF SCIENCE AND INDUSTRY

Union Pacific and the Oregon Museum of Science and Industry (OMSI) unveiled the newly transformed Turbine Hall, home to Innovation Stations, offering hands-on learning experiences that empower youth to solve some of modern society’s biggest challenges through science, technology, engineering, art and math (STEAM). Innovation Stations are designed to inspire people of all backgrounds and abilities. Visitors can try unique design challenges, searching for solutions to global issues. These challenges directly translate to meaningful careers the next generation of STEAM professionals may hold. Union Pacific partnered with OMSI to design a challenge where visitors can build and test bridges to see whether they can withstand an earthquake. The exhibit also teaches visitors about commodities moved by rail and the benefits of rail transportation, especially in emergency situations, such as those caused by natural disasters.
HEMISFAIR

Union Pacific is making a splash at one of San Antonio, Texas', well-known attractions – Yanaguana Garden at Hemisfair – with the Union Pacific Splash Pad. The park itself is lauded for its social and economic equity, providing play spaces and accessibility for all abilities and ages. We funded splash pad operations and maintenance, as well as improvements to the park’s lighting, and security and sun safety around the play area. Hemisfair sees more than 650,000 visitors annually, making it one of the busiest per-acre parks in Texas.

MOSAIC TEMPLARS CULTURAL CENTER

Union Pacific believes a community’s identity is rooted in artistic and cultural experiences unique to that community. The Mosaic Templars Cultural Center (MTCC) in Little Rock, Arkansas, is working with Union Pacific to renovate its educational museum exhibit, focusing on the notable African Americans from Arkansas’ history, as well as those who are paving the way now. The exhibit’s theater will feature an orientation film depicting the successes, oppression and culture of the African American community throughout Arkansas’ history. This experience will allow citizens of all demographics to learn and appreciate the contributions of African Americans across the state.

STREET SOCCER USA

Recreation and sports teach youth life skills, from health and wellness to sportsmanship and teamwork. Street Soccer USA assists minority and underserved populations by providing free youth street soccer clubs and leagues designed to improve quality of life and community engagement. We are working with the organization to build a new Union Pacific Street Soccer USA Park in Sacramento, California. The facility will provide a safe, healthy atmosphere for youth and those experiencing homelessness. The soccer park will include two mini street soccer courts, providing a space for after-school and adult programming. We anticipate the new park will open in June 2020.
Making a Difference in our Communities

Union Pacific's business is inextricably linked with communities, and we strive to make positive impacts. Every partnership is important to us, and the work we do has the potential to change a life.

LOCAL SUPPORT SPOTLIGHT

We supported hundreds of local organizations through our Local Grants program. The recipients were selected through an open application process, and their work aligns with our Community Ties Giving Program goals. Some of those organizations include the following:

SAFETY
- Clinica Tepeyac in Denver, Colorado, provides culturally-competent health care and preventive health services for the medically disadvantaged.
- Tenaha Volunteer Fire Department invested in new equipment to support emergency services in Tenaha, Texas.
- Westlake, Louisiana, purchased a new digital information sign that shares important public safety, traffic information and other community event messages.

WORKFORCE DEVELOPMENT
- Illinois Legislative Latino Caucus Foundation of Chicago, Illinois, provides scholarships for young Latino men and women throughout Illinois to help further their education.
- Celebrate! Maya Project of Little Rock, Arkansas, is committed to Maya Angelou’s legacy, offering a writing and history immersion workshop for youth.
- NewView Oklahoma in Oklahoma City provides training for those who have low vision or are blind, helping them leverage technology in the workplace, providing them greater independence to support their families.

COMMUNITY SPACES
- Snack Shack KC is a youth-led social enterprise that repurposed an empty storefront in a blighted area, creating a safe, fun place for youth to hang out and receive job training and adult mentorship.
- Aritztlan Inc. offers art programs and workshops for veterans, as well as documents, produces and shares art across Arizona, including creation of a mural at the Phoenix Veterans Hospital.
- Plaza de la Raza’s School of Performing and Visual Arts in Los Angeles, California, provides quarterly arts training and experiences through classes and workshops to over 5,200 local children and at-risk youth, in a variety of disciplines, at low tuition or no cost.

CAREER EXPO DESIGNED TO SPARK STUDENTS’ FUTURES

More than 4,500 eighth grade students from the Greater Peoria, Illinois, area attended CareerSpark, an interactive, multi-industry career expo free of charge thanks to grants from Union Pacific and other area businesses. Students from 76 schools explored hands-on activities linked to 85 careers, ranging from healthcare and manufacturing to business and agriculture. The Greater Peoria Economic Development Council and Junior Achievement of Central Illinois say eighth grade is a critical year when many students identify their career interests. The expo helps spark their interest as they prepare to select high school classes, building a strong foundation for their future career.

LUNCH AND LEARN HONORS DECORATED WAR HERO

In Northeastern Texas, the Harrison County Historical Museum hosted a “lunch and learn” highlighting Perry Bonner, the region’s second most decorated World War II soldier from his branch of service. The only regional hero more decorated, by one medal, was Audie Murphy. The luncheon, titled “Days of Glory, Days of Fear: War Hero Perry Bonner,” served as a kickoff for the museum’s permanent military exhibit and featured local historian Sam Moseley, former City Attorney and retired lawyer. Union Pacific supports the museum’s educational programming through its local grant program.
A NEW USE FOR RETIRED RAILROAD EQUIPMENT

Union Pacific understands support comes in many forms, and sometimes it extends beyond a monetary donation. Every year, rail cars and other assets that are at the end of their life span are removed from service. In some cases, rather than scrapping these materials, we donate them to organizations that benefit from their use. For example, we donated a rail car to the Excelsior Springs Job Corp. in Excelsior Springs, Missouri, giving students enrolled in the trade program an opportunity to practice what they’ve learned from textbooks on an actual rail car. In total, we donated assets worth $46,000 to various organizations.

PRESIDENTIAL LOCOMOTIVE RETURNING TO TEXAS

The UP No. 4141 George Bush Locomotive traveled to a trackside celebration in November near the George H.W. Bush Presidential Center at Texas A&M University in College Station, Texas. Union Pacific announced it’s working with the George & Barbara Bush Foundation to donate the engine for permanent display next to the library, museum and burial site of the 41st U.S. president. On Dec. 6, 2018, Union Pacific was honored to participate in President Bush’s funeral train, led by No. 4141, from Spring to College Station.

Students at the Excelsior Springs Job Corp. can practice their skills on a real rail car, donated by Union Pacific.

A rendering shows the permanent display where UP No. 4141 will greet visitors at the George H.W. Bush Presidential Center.
SUPPORTING THE UNITED WAY
The Community Ties Giving Program proudly supports local United Way organizations across our operating regions. Union Pacific has a long-standing partnership with United Way, an organization we support as a vital resource and contributor to communities across the country.

GIVING BACK IN OUR COMMUNITIES
Butler, Wisconsin, Locomotive Engineer Gary Nath firmly believes educational opportunities shouldn’t be limited by zip code. He gives back to Word of Life Lutheran Grade School and Wisconsin Lutheran High School, schools that shaped his future and where his children are now students, supporting programs such as Project Lead the Way, a STEM program for students pre-K through 12th grade.

In addition to financial gifts, Nath donates his time assisting the drama club, working in the IT closet, fixing desks and installing projectors, among other things. Nath encourages all Union Pacific employees to get involved.

“What you do as a volunteer is important, but your involvement might also inspire someone else,” Nath said. “Collectively, we can help make our neighborhoods better places to live.”

MATCHING OUR EMPLOYEES’ GENEROSITY
Union Pacific’s GivePLUS program matches employee donations to nonprofit organizations and supports employees who volunteer their personal time by providing matching grants. Monetary donations to nonprofit organizations are matched dollar for dollar, while those made to educational institutions carry a 2:1 match. In total, we matched our employees’ generosity and donated nearly $3.7 million to nonprofit organizations improving our communities. Additionally, Union Pacific matches dollar-for-dollar employee contributions to its Fund for Effective Government by donating to charities of employees’ choosing.

WHAT’S AHEAD
2020 is the final year of our 3-year commitments with our national key partners: Safe Kids Worldwide, LISC and the National Park Foundation. We will continue collaborating with Safe Kids Worldwide to find new ways to educate parents and children about rail safety. We will work with LISC to deploy new curriculum focusing on careers in Transportation, Distribution and Logistics, building our nation’s future workforce. We look forward to our continued Open OutDoors for Kids partnership with the National Park Foundation. In 2020, the one millionth child will visit a park as part of this program, instilling environmental stewardship and a passion for nature.

Our Regional Partnership program expanded in 2019, and we look forward to continued growth as these relationships mature, specifically projects with Creighton University, Junior Achievement of Utah, Boys & Girls Club of Placer County, Street Soccer USA and City Net.
Engaging Employees

Union Pacific’s employees are passionate about their role Building America. We believe the work that every employee does matters, and how the work is accomplished is just as important as producing results and achieving goals. Every employee’s career path is unique, from an office setting to working on or with trains. At Union Pacific, we help employees develop skill sets enabling them to grow, move into positions across the company and become experts in their role, leading to fulfilling careers.

The work we do moving customers’ goods and providing shareholder value is not possible without the hard work and dedication of our employees. As we implemented Unified Plan 2020, we found efficiencies that resulted in a workforce reduction, impacting management and union employees. Union Pacific does not make these decisions lightly, but we know they are critical to our company’s vibrancy in future generations.
Embracing Employee Needs

Union Pacific is a company that is always moving, advancing and building. We have the best employees in the industry, and we are dedicated to engaging them and motivating them to unlock new levels of passion and dedication while leveraging their diverse talents.

When we launched Unified Plan 2020, we indicated there would be workforce reduction initiatives, which would likely continue through 2020. Uncertainty with trade contributed to volume decline of approximately 6% for the year compared to 2018, requiring us to further reduce our workforce to align with customer needs. Although difficult, these changes are critical to ensure Union Pacific remains a strong and competitive company.

Providing employees with fulfilling, family-supporting careers is important to us. We offer competitive compensation to our employees and leadership. Our board of directors evaluates our compensation plans and reviews recommendations from the Compensation and Benefits Committee. The median annual total compensation for all our employees who were employed as of Dec. 31, 2019, was $79,446. The annual total compensation for Chairman, President and CEO Lance Fritz was $15,018,400, resulting in a pay ratio of 189:1. Additional information about our executive compensation structure is available in the 2020 Proxy Statement.

EXECUTIVE STAFF

Lance Fritz
President and Chief Executive Officer

Printz Bolin
Vice President – External Relations

Rhonda Ferguson
Executive Vice President, Chief Legal Officer and Corporate Secretary

Jennifer Hamann
Executive Vice President and Chief Financial Officer

Thomas Lischer
Executive Vice President, Operations

Scott Moore
Senior Vice President – Corporate Relations and Chief Administrative Officer

Clark Ponthier
Senior Vice President – Supply Chain and Continuous Improvement

Kenny Rocker
Executive Vice President, Marketing and Sales

Jim Vena
Chief Operating Officer

Beth Whited
Executive Vice President and Chief Human Resource Officer

1 Senior management covers approximately 100 employees with an assistant vice president, general manager or general superintendent title or higher.

2 Jennifer Hamann succeeded Rob Knight, who retired in 2019 following 39 years of service at Union Pacific.
Building Employee Engagement

When employees are empowered and respected, they feel connected to the company. Union Pacific believes every employee needs to be engaged in making his or her work safer and more productive.

Employees had an opportunity each quarter to provide internal feedback through anonymous online surveys. Participation rates and Union Pacific’s Employee Engagement Index, our measurement of the current engagement level, dropped every quarter. Given the workforce reduction and changes implemented with our new operating strategy, a drop in scoring was not unexpected. We know we have work to do, and we are committed to listening to our employees’ feedback and finding solutions. All employees, regardless of craft, location or title, want to be shown appreciation by their managers, understand how they fit into the company’s strategy and be kept in the loop by local leadership.

As a direct result of engagement survey feedback, we worked with employees to implement a new field testing program called COMMIT for Train, Engine and Yard (TE&Y) employees. COMMIT, which stands for Coaching, Observing, Mentoring and Motivating with Integrity and Trust, focuses on results-based, in-person coaching interactions instead of discipline. The modernized program simplified our rules structure, focusing on 30 critical rules compared to the previous 3,000.

"During our research, we discovered 80% of safety incidents occur within only six types of activities," said Erin Batt, assistant vice president and chief safety officer. "By shifting our focus to what is actually happening and not what could potentially happen, we help eliminate our highest risks and drive our safety numbers to the ultimate goal of zero incidents."

Field managers believe COMMIT is making a positive impact. One element is "On the Job Engagements," allowing managers and employees to interact one-on-one and address issues beyond safety. For example, when an employee identifies a hard-to-throw switch that needs attention, they work together to solve the problem.

"We're treating others the way we want to be treated – with respect," said Mike Santa Maria, general manager-Transportation, Great Plains Service Unit. "After spending an hour with someone switching, it's amazing how quickly you find common ground you may not have otherwise experienced. We’re building relationships, trusting one another and having respectful conversations."

UNVEILING NO. 1111 – THE EMPLOYEE PRIDE LOCOMOTIVE

In our nearly 160 year history, we’ve only created 17 commemorative locomotives. Some pay homage to our predecessor railroads that merged to create today’s Union Pacific, while others recognize important organizations in American society. As we celebrated the 150th anniversary of the transcontinental railroad’s completion in May, we wanted to honor the one thing that remains the same – our employees, who are the heart of the railroad. The Employee Pride Locomotive is the first commemorative locomotive dedicated to honor the men and women of Union Pacific. UP No. 1111 represents our goal to be the No. 1 railroad with the No. 1 employees who have the No. 1 dedication to safety with 1 vision – Building America. The locomotive’s design was selected by employees. It represents various crafts and departments, as well as the diverse community landscapes employees serve each day. No. 1111 was officially unveiled at an employee celebration in Omaha, Nebraska, and is now traveling the system pulling customer freight.
PROVIDING MEANINGFUL BENEFITS

We offer a comprehensive benefits program, including medical insurance, Railroad Retirement and 401(k), as well as niche benefits employees may find useful at various life stages. Benefits vary based on the applicable collective bargaining agreement or an employee’s non-union status. As our company and workforce continue to evolve, so must our practices and policies.

At a Southern Region employee town hall meeting early in the year, Beth Whited, executive vice president and chief human resource officer, was asked how Union Pacific can better support employees and their family life. A special project team was created, made up of Workforce Resources and members of our women’s Employee Resource Group, LEAD. The team decided to focus on women in Operating after looking at employee engagement survey data. A follow-up survey of approximately 1,000 female employees found nearly half plan to start a family; however, many don’t believe they can do so and continue their current job. Feedback centered around 24/7 child care options and early parenthood support.

We made some immediate changes. For example, all lactating agreement and nonagreement employees are now provided free overnight shipping of breast milk when traveling for work through Milk Stork. The program allows employees to continue providing for their children without the added stress of getting the milk home. Union Pacific also implemented an enhanced maternity leave benefit. Women now receive six weeks of paid leave in addition to the existing short-term disability benefit for normal delivery or eight-week benefit for cesarean section delivery.

“We are not trying to solve ‘mom’ problems, but create solutions for the whole family,” said Carrie Jensen, manager-Training Delivery, Workforce Resources. “The ultimate goal is to provide a healthy balance for all employees, building an inclusive workplace that is thriving with diverse, engaged employees.”

We are proud of our benefit offerings; however, work schedules required to operate our railroad’s 24/7 operations can be challenging, and employees often need extra support caring for loved ones. The Bright Horizons Care Advantage™ database refers employees to supportive care providers and services, such as:

- Center-based and in-home child care.
- Elder care.
- Pet care.
- Housekeeping.
- Tutoring and homework help.
LABOR AGREEMENTS

Union Pacific works with 15 major rail unions representing approximately 85% of our roughly 37,500 full-time employees.

In November, the National Railway Labor Conference announced that its members, including the nation’s largest freight railroads, launched a new bargaining round with 13 labor unions representing more than 142,000 unionized employees industry-wide. In delivering Section 6 bargaining notices to the labor unions, the railroads stressed that reaching new, modernized labor agreements can ensure railroad employees remain one of the nation’s best-compensated workforces.

Key issues being negotiated include wages, health care benefits and work rules. New agreements will allow railroads to leverage transformational technologies, including developments in automation and safety to help manage an uncertain economy and long-term structural changes in transportation and rail traffic.

The majority of unions and more than 45 railroads participate in negotiations on a national multi-employer basis. The National Carriers Conference Committee (NCCC) of the National Railway Labor Conference, consisting of the top labor officers of Class I railroads, is the bargaining committee for the carriers.

Railroads are governed by the Railway Labor Act (RLA), a federal statute enacted in 1926 to bring the railroads and unions to agreement without disruptions to rail transportation. The RLA includes numerous safeguards to help overcome bargaining stalemates.

Under the law, collective bargaining agreements remain in force indefinitely until the parties agree to change them. Without contract expiration dates, negotiators don't work against a fixed deadline. Instead, they proceed through a structured and regulated process.

AUXILIARY WORK AND TRAINING STATUS

Shifts in business demand resulted in temporary reductions to train and yard service (TE&Y), causing employee furloughs. A furloughed employee is placed on an inactive board and not subject to call, unless the union agreement they work under has specific stipulations. In approximately 75% of Union Pacific's work locations, furloughed TE&Y employees were eligible to be covered under Auxiliary Work and Training Status (AWTS) agreements providing limited benefits. These agreements must also be approved by local unions.

AWTS agreements provide up to eight work or training days per month, and continue full health care benefits and service months contributing to Railroad Retirement. Employees continue training to sharpen their skills and prepare for full-time employment when customer demands increase.

**Diagram:**

Collective Bargaining Under the Railway Labor Act

- **Section 6 Notices**
  - Agreement
  - Direct bargaining between parties
  - Either party requests NMB mediation or NMB offers mediation
  - Mediation
  - Agreement
  - Arbitration Board issues binding award
  - Parties agree to arbitrate
  - NMB declares mediation efforts have failed and offers binding arbitration
  - Either party refuses to arbitrate
  - Self-help (strike or lockout)
  - 30-day cooling-off period
  - Agreement
  - If dispute threatens interstate commerce, NMB notifies the president
  - The president may establish a PEB to investigate and make recommendations in 30 days
  - Agreement
  - Thirty days after the PEB report, parties are free to exercise “self-help”
  - One or both parties reject recommendations
  - Congressional action to intervene, preventing service disruptions

**NMB** – National Mediation Board  
**PEB** – Presidential Emergency Board
Developing Employees

The work of building, maintaining and operating a railroad is challenging. Union Pacific’s commitment to employee training and development is vital for cultivating the high-quality workforce we need. It also plays a critical role keeping our employees safe, ensuring we operate ethically and retain an engaged workforce.

UNION PACIFIC RECOGNIZES 50-YEAR EMPLOYEES

1969 was quite the year. The first human landed on the moon, the famous Woodstock Festival attracted nearly half a million people and the nation celebrated the 100-year Golden Spike anniversary. It also was the year Alma Hill and Bruce Rice became railroaders.

Hill joined the railroad as a file clerk in Houston, Texas. Over her career, she moved more than seven times, working as a file clerk, utility clerk, dispatcher clerk, assistant chief clerk and revenue accountant, among other positions. Her co-workers describe her as hard-working, dependable and positive. She currently works in Kansas City as a utility clerk and mentors younger employees.

Rice was hired out by the Missouri Pacific as a fireman. The Missouri Pacific later merged with Union Pacific, and Rice spent the majority of his career in the cab of a locomotive, traveling from Salem, Illinois, to Poplar Bluff, Missouri, or Salem to Dexter, Missouri. The locomotive engineer’s co-workers say his knowledge was extensive, and he could run a train by feel. Rice retired in July.

The honorees were recognized by Chairman Lance Fritz, senior executives and their peers at a May celebration at Union Pacific Center in Omaha, Nebraska. They also toured Heritage Park and the Union Pacific Museum in Council Bluffs, Iowa, reliving some of the railroad history they witnessed firsthand.

Bruce Rice, left, and Alma Hill visit Heritage Park in Council Bluffs, Iowa.

EMPLOYEE RETENTION*

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<th>2015</th>
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<th>2016</th>
<th>33%</th>
<th>2017</th>
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<th>FIELD MANAGEMENT TRAINEE</th>
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<th>58%</th>
<th>2016</th>
<th>59%</th>
<th>2017</th>
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<th>2018</th>
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* This chart reflects end-of-year retention numbers. As employees leave the company over time, statistics for previous years are updated. For example, 36% of the OMTs hired in 2015 are still with Union Pacific.
DEVELOPING SKILLS

Our training and development focus on setting goals and achieving great results. We invested approximately $34.5 million to develop and deliver a wide range of training to our employees. Of our 37,500 employees, 100% participated in training activities.

Our core competencies foster a culture of performance and growth supporting our vision, purpose and values. In addition to work-related skills, we develop employees’ capabilities in eight core competencies:

- Building relationships and influencing others.
- Handling adversity.
- Confronting problems with courage.
- Leading teams.
- Embracing change.
- Making effective decisions.
- Acting strategically.
- Focusing on customers.

We offer skill development opportunities for employees at all levels. These include:

- New Employee Onboarding Program – Courses on communication and industry-specific training through interactive experiences.
- Skill Development – Technical, communication, safety and environmental courses.
- Managerial and Leadership Development – Management and leadership courses helping employees grow and develop.
- Transitioning Managers – Courses helping newly promoted managers lead teams.
- Transportation Operations Training – Operational excellence courses strengthening employee skills and training for superior service.
- Field Management and Operations Management Training Programs – Programs preparing employees for frontline management positions within the Operating Department.

ENHANCING SKILLS THROUGH SIMULATOR TRAINING

Imagine taking control of a 200-ton locomotive, pulling dozens of cars loaded with lumber, cheese and consumer products, and navigating across changing terrain. Our locomotive engineers take the throttle and succeed in many scenarios just like this before actually stepping inside the cab.

Union Pacific uses 39 full-size locomotive simulators to replicate the experience of operating a locomotive along our tracks. It gives employees an opportunity to experience multiple terrains and react to different scenarios.

We have three mobile training trailers, each equipped with 13 workstation simulators and 25 laptop simulators. This equipment supports Positive Train Control implementation. Although we've completed required employee training, we continue to use these trailers to train new employees and provide any refresher training our current staff may want or need.

Union Pacific uses Remote-Controlled Locomotive (RCL) simulators to provide hands-on training for licensed remote-control operators. In their daily work, these employees use a small computer console to direct locomotives inside rail yards. We plan to continue using simulators for new hire conductor and RCL classes.

Instructors provide hands-on RCL training in St. Paul, Minnesota.

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<th>2017</th>
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<td>20,000 hours</td>
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<td>Mobile PTC simulator</td>
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<td>RCL simulator</td>
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1 Union Pacific completed its required training; however, PTC education is ongoing as we retrain employees and introduce the system to new hires.
A MODERNIZED APPROACH TO TRAINING

Without laying a track, it’s impossible to operate a train. Similarly, without laying a foundation of knowledge, it’s impossible to advance and diversify one’s skill set. We centralized our departmental training functions, combining them into one team within Workforce Resources and, at the same time, found ways to modernize training based on employee feedback. We're emphasizing training in the field, rather than a classroom, and offering it when employees need it so it will be top of mind. We're using more simulators and bite-sized resources to solve real-world issues in real time. We're also leveraging “Go and See” activities and cross-functional discussions, as well as offering certification programs for employees to refresh their skills.

Teamwork Starts on Day One
We redesigned our Operations Management Training (OMT) and TE&Y new hire programs. TE&Y employees are responsible for building and moving trains. OMT graduates become the managers who oversee this work. Following orientation, the two groups join forces for an eight-week, field-focused training class, learning side by side in a mock Operating environment.

“We are showing participants that railroading is a partnership,” said Lydia White, manager-Training Delivery, Workforce Resources. “To be the best freight railroad and practice excellent customer service, we need to work together.”

The redesigned training programs reduce TE&Y new hire cycle time (from hire date to application of training principles), from 17 weeks to eight weeks, and OMT cycle time from about 10 months to five months. Nearly every participant in the pilot gave positive feedback on the new training program, saying it better prepared them to immediately start work in the field.

Engineering Receives Trackside Training
As technology evolves, so does the work our Engineering staff performs, requiring continuous education. We’re sending instructors into the field to provide onsite training for positions such as track foremen and inspectors, tamper and crane operators, work equipment mechanics and Signal employees.

“Structured field training provides employees an opportunity to receive immediate feedback, giving them a clear picture of how to safely and successfully complete their jobs,” said Ron Speer, manager-Technical Training, Workforce Resources.

Workforce Resources also uses mobile simulation for cranes, boom trucks and those working with air brakes and hotbox detectors. Simulation allows employees to learn or improve a skill, and then perform specific testing or inspections on their own with an instructor present for reinforcement, if necessary.

More than 12,000 employees have attended one of 65 classes on topics ranging from crossing warning and cutover to coded track circuits, hotbox detectors and Positive Train Control (PTC). From Baton Rouge, Louisiana, to Hermiston, Oregon, one- to three-day training classes have been conducted in all 23 states where we operate.

Dispatchers with Excellence
Dispatchers control train movement across our network, coordinating hundreds of trains every day. One train stopping or reducing speed increases potential safety risks and slows down customers’ goods. However, dispatchers can't solve this problem alone. We piloted a new program, Dispatching with Excellence, focusing on ways dispatchers can better communicate with locomotive engineers. They rely on dispatchers to look ahead, give warnings and serve as a guide on their trip. By better communicating any foreseeable issues with train crews, we expect to reduce unplanned stops and slowdowns, and improve reliability and network fluidity.

Mastering GE AC4400 Locomotives
General Electric’s (GE) AC4400 locomotives have been a staple in our fleet for years, and now we're retrofitting them with new control systems, creating the need for experienced machinists and electricians to become experts on the new technology. Union Pacific worked with GE to design a certification program that incorporates online classes, classroom instruction and on-the-job training with a GE-technical advisor and one of our certified trainers. More than 50 Union Pacific machinists and electricians have graduated from the program, receiving a GE4400 Certification jacket, hard hat sticker and certificate.

Emerging Leaders
We launched a new program designed to inspire early-career employees by investing in their development and positioning them for career progression. The hand-selected employees participate in an eight-week program designed to teach them how to effectively manage change, build relationships, influence their peers and manage conflict. After learning these skills, participants select a volunteer opportunity to hone their abilities and a mentor from outside their department to help them practice long-term relationship-building skills.

From left, Workforce Resources Senior Instructor Archie Niebres provides signal training to three Engineering signal maintainers: Andrew Cerda, Jack Juanillo and Gerardo Monge.
An Embedded Ethical Approach

Union Pacific's reputation and success are determined by the decisions we make as employees and as a company, and by the people with whom we choose to do business. Providing the training and tools needed to help employees make the right decisions is a priority.

Our policy on Ethics and Business Conduct, The How Matters, explains our expectation of ethical conduct, prohibiting offensive remarks and sexual harassment, among other violations. We have a zero tolerance policy on inappropriate behavior involving Equal Employment Opportunity (EEO) and retaliation, encouraging employees who witness behavior they believe violates EEO policy to report the incident.

Union Pacific employees operate under the following high ethical standards:

- **Honesty** – Being truthful when dealing with customers, suppliers, shareholders and fellow employees.
- **Fairness** – Treating everyone fairly.
- **Integrity** – Voicing concerns when we believe our company or colleagues are not acting ethically or complying with the law.
- **Respect** – Maintaining a foundation of trust and respect with colleagues, customers, regulators, suppliers and other stakeholders.
- **Loyalty** – Ensuring no employee is, or appears to be, subject to influences, interests or relationships that conflict with the company’s best interests.
- **Accountability** – Holding ourselves, peers and customers to the company’s high ethical standards.
- **Adherence to the law** – Complying with all laws.
- **Compliance with policies** – Complying with the letter and spirit of company policies.

ETHICS AWARENESS

Union Pacific educates employees about ethics and our expectation of high ethical conduct throughout the year. We focus on The How Matters and the premise that how we do our jobs is as important as what we accomplish. Published articles on our employee news website, regular ethics bulletins and mandatory training modules remind employees of Union Pacific's high ethical standards.
CONTINUOUS IMPROVEMENT THE UP WAY

The UP Way engages all employees to continuously improve safety, service and efficiency by providing methods, tools and processes to standardize work, eliminate variability and waste, and solve problems at the root cause. We use the following primary UP Way tools to achieve continuous improvement (CI):

• **Standard Work** – Operations are performed in a consistent manner and are regularly improved by employees doing the work, improving engagement and reducing variability.

• **Leader Standard Work** – The audit function of the UP Way suite of tools; utilized to ensure improvement is sustained by engaging and developing employees.

• **5S (Sort, Straighten, Shine, Standardize and Sustain)** – The workplace is cleaned and organized in a systematic process, improving our work areas and increasing efficiency.

• **Value Stream Mapping** – A map-like illustration that shows the flow of the process, information, materials and cycle times, allowing us to process constraints and eliminate waste.

• **Problem-Solving** – A process for analyzing problems to determine the root causes in order to solve the problem for the last time.

• **Visual Management** – Work cues that indicate process performance for all employees, providing opportunities to improve and understand processes.

Employees who have a passion for improvement may apply for our UP Way Certification Program. This nine-month program pairs the employee with a mentor while they are trained in CI and gives them an opportunity to use their skills to complete improvement projects within their department. Since it began in 2013, more than 245 employees have earned a UP Way certification through the program.

IDENTIFYING THE ROOT CAUSE

Union Pacific locomotives are running more reliably thanks to UP Way graduate Mary Pistillo, senior engineer-Locomotive, Mechanical, who used problem-solving tools to find and address the root cause of the C44 fleet's fuel injection pump failures. Pistillo worked with the locomotive maker, discovering the problem that led to most of the fuel injection pump issues. She instituted a new maintenance procedure to catch the problem in the shops. At the same time, the locomotive maker redesigned the pump and developed new software that Union Pacific is systematically installing. Digging into this project helped Pistillo achieve her goal of zero failures or service interruptions after locomotives leave the shop.

“If you find and fix the true root cause, then a problem can be solved once, allowing you to move on,” Pistillo said.

STANDARDIZED SAFETY CHECK

Occupational Health Nurses (OHNs) are located across Union Pacific’s 23-state system. They are responsible for preventing and responding to injury and illness, as well as promoting health and safety. OHN Jessica Carson created Standard Work that is now used systemwide by OHNs participating in monthly leadership site visits, helping them take a strategic and proactive approach to employee health and wellness. For each visit, OHN Standard Work includes promoting wellness programs, conducting health screenings and completing a Safety Audit Checklist. The checklist means OHNs know the status and location of critical items, such as AEDs, First Aid kits and Personal Protection Equipment supplies, preparing them to handle any situation.

“When you go to an emergency room, you want every staff member to know exactly where everything is,” Carson said. “For Union Pacific’s OHNs, increased efficiency means improved employee safety.”
Diversity, Equity and Inclusion

Union Pacific is committed to improving and strengthening performance through an inclusive workforce that reflects the diverse markets and communities we serve. Recognizing we still have work to do, we continue to focus on building an inclusive culture, and a talented workforce and marketplace.

Our diversity council, chaired by our chairman, president and CEO, provides frontline insight and reports quarterly to senior management. We also have an Employee Resource Group (ERG) Steering Committee that oversees our nine ERGs. These groups are critical to supporting the company’s diversity and inclusion strategy by raising awareness and providing an environment where all employees can realize their potential.

Attracting, acquiring and maintaining a diverse workforce provides access to the skills and character we need to foster innovative ideas and drive optimal business growth. Drawing on different experiences and expertise is critical for strategic decision-making, problem-solving, leadership development and creativity.

We recruit talented individuals dedicated to our mission of service and passionate about performing to the best of their abilities while working as one team. We recognize and value that people come from all backgrounds and walks of life, and embrace those with cognitive diversity. Union Pacific wants employees from all groups to launch and grow their career within the company.

Fostering Equality

Union Pacific employees have the fundamental right to fair treatment within a discrimination-free workplace. We create a work environment that respects and values differences, which is essential for employees to reach their fullest potential.

We are committed to a work environment free of offensive behavior regarding a person's race, color, national origin, religion, gender, sexual orientation, age, gender identity, veteran status or disability. This includes offensive behavior directed at employees, customers, visitors to company facilities and others who employees may contact during the normal course of work.

The Human Rights Campaign Foundation publishes a Corporate Equality Index (CEI), identifying America’s most and least LGBTQ-inclusive companies. Scores, from zero to 100, measure the treatment of LGBTQ employees and are based on a company’s non-discrimination policies, employment benefits, efforts to support an inclusive culture and responsible citizenship. We enhanced our benefit offerings for same and different-sex partners, expanded our anti-discrimination policy to the Community Ties Giving Program, and added LGBTQ to our Supplier Diversity program’s anti-discrimination policy. We are proud of the work we did in 2019 to improve our score from 80 to 95 on the newly released 2020 CEI.

Inclusive Leadership

Diversity and inclusion aren’t just values to live by; they have real impact on business outcomes. According to a McKinsey study, 33% of ethnically diverse companies have industry-leading profitability, and companies in the top quartile for gender diversity are 27% more likely to outperform their peers on value creation.

Understanding the significance of these potential impacts, we created an unconscious bias training course called Inclusive Leadership. The four-hour class helps employees better understand unconscious bias and the impact it can have, as well as empowers them to see it and take action. Our goal is for Union Pacific employees to lead by example and demonstrate inclusive behavior at work and in their communities.

More than 2,400, or approximately 93%, of required managers completed the in-person Inclusive Leadership class. The training is required for executives, senior managers and anyone with direct reports. An online version was deployed late in the year, giving us an opportunity to equip additional employees with this critical training.

Leading by Example

At Union Pacific, diversity, equity and inclusion are more than a goal – they are a responsibility. These values are core to who we are, and employees must lead by example in our communities, ensuring they extend beyond the rail yard and office. We want employees to live and work in communities where they feel inspired, and that means interacting with people who have different opinions, backgrounds and experiences.

We’ve called Omaha, Nebraska, home for nearly 160 years, and we’re building our future here – one that’s based on equal opportunity. We are proud to work with the Greater Omaha Chamber on collaborative efforts to engage the business community on advancing diversity, equity and inclusion in the workplace. Commitment to Opportunity, Diversity and Equity (CODE) is a call to action. As a participant and lead sponsor, Union Pacific is committed to implementing comprehensive strategies, appointing a full-time diversity and inclusion leader and measuring success through assessment. Chairman Lance Fritz helped promote the Chamber’s inaugural CODE Conference with a video testimonial encouraging other CEOs and executives to attend. The end result was 425 attendees. Fritz engaged in discussions at the conference’s CEO session, which focused on addressing diversity, equity and inclusion as business imperatives, and working collaboratively to take action in the workplace and our community.

*Source: Delivering through Diversity, McKinsey & Company
Union Pacific was among roughly 75 businesses that assembled in Washington, D.C. for the Business Roundtable’s (BRT) Forum on Advancing a Culture of Conscious Inclusion. It was an opportunity for us to interact with other business leaders who are shaping diversity and inclusion initiatives and to create actionable recommendations for the CEO members. Topics discussed included effective ways to hold leaders accountable and to track progress against goals, as well as drafting policy positions and leveraging advocates who work in Washington.

**EMPLOYEE RESOURCE GROUPS**

Union Pacific’s Employee Resource Groups are nurturing networks that promote a diverse workplace where everyone does their best work. Each ERG has an executive sponsor directing the leadership team’s attention to concerning issues. ERGs support their members, educate other employees and embrace the communities we serve.

In the fall, we brought officers from each ERG together for an ERG Development Workshop. It was an opportunity for the groups to discuss the challenges and rewards they experience, as well as brainstorm and plan for the upcoming year. Each ERG’s executive sponsor participated in the workshop, which also included opening remarks from Chairman Lance Fritz, an update on company strategy and recognition.

More than 2,200 employees across Union Pacific are involved in one or more ERGs, which include:

- Asian Employee Resource Organization (AERO).
- Black Employee Network (BEN).
- LGBT Employee Network (BRIDGES).
- Council of Native American Heritage (CONAH).
- Educate, Advocate, Support and Encourage (EASE).
- A Women’s Initiative – Lead, Educate, Achieve and Develop (LEAD).
- Latino Employee Network (LEN).
- Emerging Professionals Network (UP Ties).
- Union Pacific Veterans Network (UPVETS).

**INTRODUCING OUR 9TH ERG**

Disability impacts everyone – 61 million U.S. adults live with a disability, and one in every 26 American families report raising children with a disability. To address this, we launched our ninth ERG – EASE, which stands for Educate, Advocate, Support and Encourage. The group aims to develop a community of employees impacted by disability by facilitating awareness and understanding, and encouraging integration of employees impacted by disability into our culture.

“Employees joining EASE will come away with a stronger awareness of people with special needs and abilities,” said Kenny Rocker, executive vice president – Marketing & Sales. “We need to better celebrate people with special abilities, and EASE will teach us to be more accepting of these individuals.”

**GIVING BACK IN OUR COMMUNITIES**

In addition to building a support structure and networking resource, ERGs give back in the communities where employees live and work. Employees work together to hold donation drives for clothing, backpacks, food, blankets and toys. The sense of camaraderie is rewarding in more ways than one.

“Service to others in the community is good for the soul and it feels good to help those in need,” said Derwin Davis, senior recruiter-Workforce Resources. “We have great people working within our ERGs who understand the importance of giving back to the community. It’s not about self-promotion, but simply giving back selflessly.”

**ENCOURAGING WOMEN TO SEE THEMSELVES AT UNION PACIFIC**

Women make up approximately 5.5% of Union Pacific’s total workforce, a percentage that represents one of the company’s biggest diversity opportunities. We are working to double the representation of women to 11% by 2030.

Businesses such as ours face a growing shortfall of skilled trade workers due to fewer people choosing to learn a trade. We’re looking at potential barriers for women in this line of work and finding solutions to these roadblocks. For example, we’ve already addressed an important issue for nursing mothers through Milk Stork, a service that provides free overnight shipping of breast milk for women traveling for work. We also are taking steps to engage women who are furloughed, due to business volume, to make sure they’re ready to come back to work as soon as demand returns.

It’s important all employees have development opportunities and understand their career potential, and the many paths it can take. We’re examining each department to understand what the work looks like. If there are lower proportions of women within the group, we want to understand why. In some cases, this could mean redesigning the work to better support employees balancing work and family.

Just as important as retaining our employees is building a robust pipeline to recruit the very best and encourage women to see themselves succeeding at Union Pacific. Our careers website features stories of women working in Transportation, Engineering, Mechanical and Technical teams. We partner with skilled trade organizations, veterans groups, technical and trade schools, and affinity groups at multiple universities, sharing opportunities with women interested in pursuing a fulfilling career.

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4 Source: Centers for Disease Control and Prevention
5 Source: M&L Special Needs Planning
Union Pacific launched a partnership with Fairygodboss.com, the largest career community for women. The website provides free expert career advice, job openings and company reviews written by women for women. We are just beginning this partnership, and we are excited to see how it develops.

‘QUEEN’ DAVIS SPREADS POSITIVITY

For Mechanical Service Operator Andrea Davis, the goal of each and every day at Union Pacific is to spread positivity. While carrying out her duties as a maintenance shop cleaner at Jenks Locomotive Shop in North Little Rock, Arkansas, she regularly checks in with railroaders of all trades, from management to craft employees.

Davis wanted to be a railroader since childhood, thanks to time spent watching trains with her father, and she wanted a “hands-on” job. She started her career as a locomotive mover before transferring to Jenks Locomotive Shop five years ago. Her service track skills come in handy, allowing her to fill in at the washhouse, polishing locomotives and engines to perfection before they undergo maintenance and inspection.

“I feel like a queen among kings, a mama hen,” Davis said. “There aren’t many women at Jenks, so I do my part by answering questions and mentoring others.”

Davis is an active union member, serving as the 15-year secretary for Chapter 718 of the National Conference of Firemen and Oilers. Her responsibilities include taking and reading minutes, answering questions, connecting members, and standing in for the local chairman, as needed. She also is an active Peer Support volunteer, providing friendship and support to peers experiencing a disabling injury, family illness, death or other crisis.

HELPING YOUNG GIRLS MOVE FULL “STEAM” AHEAD

If we want to see more women on the railroad, we have to expose them to career opportunities at any early age and show them what success looks like. Union Pacific joined forces with the Urban League of Nebraska and its Whitney M. Young, Jr. Academy to host a one-day workshop for the Girls Summer STEAM Academy. The academy exposed up to 20 girls of color in ninth through 12th grade to careers in Science, Technology, Engineering, Agriculture, the Arts and Mathematics through hands-on experiences. The workshop at Union Pacific gave participants a chance to try programming, bridge building and mechanics – careers offered at the railroad – while interacting with current female employees.
Keeping Employees Healthy and Well

We are determined to help employees stay healthy. Our wellness programs help employees take charge of their well-being with tools to manage physical and mental health. Available resources include coaching, access to fitness centers, health education programs and screenings, and flu shots.

The System Health Injury Protocol program assists employees who may be at risk for injury because of low fitness levels. It provides access to personal training and nutrition consultations, helping employees achieve their fitness goals. When employees sustain injuries, Union Pacific’s Return to Work program offers meaningful work within their physical capabilities. We also provide education and assistance to help with substance abuse, staying alert and stress-related conditions.

Other employee wellness programs include:

- Personalized health coaching, helping employees and their spouses manage stress, depression, smoking, diabetes, nutrition education and weight management.
- Employee Assistance Program, offering all employees and their families counseling and referral services for personal or work-related problems.
- System health facility program, giving employees access to more than 5,000 gyms located near Union Pacific work sites.
- Incentives encouraging annual wellness assessments and physicals for non-union employees.

SHARING BEST PRACTICE ON PEER SUPPORT

A central role in Union Pacific’s approach to well-being is filled by Peer Support networks, with trained employees offering confidential advice and guidance to their colleagues. This strengthens bonds and builds a sense of community within Union Pacific, providing support from those with an inherent understanding of the rail industry.

‘I VOWED TO MAKE A DIFFERENCE’

David Sullivan, a Tucson, Arizona-based locomotive engineer, became an Operation RedBlock and Peer Support volunteer in 2012 after a friend died from suicide. Unbeknownst to Sullivan, his friend and co-worker was a veteran suffering from post traumatic stress disorder.

“He reached out to me a few times, under the influence, and I didn’t know how to handle it,” Sullivan said. “After he died, I vowed to make a difference and be there for the next person. I would prevent it the next time.”

Union Pacific supports World Suicide Prevention Day – Sept. 10 – each year, spreading awareness and reminding employees of the importance of taking action to prevent suicides. Volunteers and occupational health nurses speak with employees systemwide about warning signs and resources for employees and their families.

Those in crisis or who know someone at risk should contact the National Suicide Prevention Lifeline at 800-273-TALK (8255).

EMPLOYEE ASSISTANCE PROGRAM

We operate a 24/7 Employee Assistance Program helpline, providing access to trained employee volunteers. These volunteers are equipped to help colleagues work through the emotional impacts of life-changing events. Support is entirely confidential – and can provide a bridge to professional support services, where needed.

EMPLOYEES ACTIVELY SERVING

Some of Union Pacific’s first employees were Civil War veterans, and through our nearly 160-year history, we’ve consistently supported the military – whether by moving troops and supplies, or by providing good jobs for veterans and reserve-duty soldiers. We recognize that members of the U.S. military are dedicated individuals who bring unique experience and skills to Union Pacific. More than 17% of employees have military experience, with some still active in the National Guard or Reserves. In the last five years, 22% of new hires were veterans.

Union Pacific complies with the Uniformed Services Employment and Reemployment Rights Act (USERRA), which provides leave and reemployment rights for veterans, reservists, National Guard members and others serving in the armed forces. Every month, approximately 75 agreement and 10 nonagreement employees are deployed. We have a military liaison who serves as a point of contact for employees and their families during deployments, answering questions and handling any concerns.

Union Pacific’s Support our Troops initiative encourages employees to send messages to our railroad’s uniformed soldiers on active duty around the world. For the 16th year in a row, our employees sent an American flag, messages and care packages to colleagues stationed overseas on Memorial Day.
SCOOPS FOR TROOPS

Scoops for Troops, a fundraiser hosted by our UPVETS and UP Ties ERGs to support troops at home and abroad, is a summer tradition at Union Pacific Center in Omaha, Nebraska. Denver Broncos captain Andy Janovich helped kick off the 10th annual event. His father recently retired from Union Pacific, and both of his sisters are current employees. In total, 15 gallons of ice cream and 30 pounds of toppings were consumed by 275 employees, raising nearly $2,000 in donations.

SECRETARY OF DEFENSE EXECUTIVE FELLOWS PROGRAM

Every year, military officers from each branch of service are selected to receive senior service college credit by training with corporations, companies and commercial enterprises through the Secretary of Defense Executive Fellows Program. With 21 years in the Marine Corps, Lt. Col. Jamey Stover selected Union Pacific for his fellowship to broaden his logistics experience. Stover served as a logistics officer on 13 assignments in six states and five naval ships. During his year at Union Pacific, he worked in Loup Logistics, familiarizing himself with carload and intermodal transportation, and even experiencing military marketing. Stover appreciated seeing strategy for military movements and recruiting from the other side. As we implemented Unified Plan 2020, Stover learned about asset utilization and efficiency - strategies he plans to take back to his Marine Corps logistics community.

Other companies hosting fellows in 2019 included Amazon, Google, Microsoft and Boeing.

WHAT'S AHEAD

Improving employee engagement continues to be among our top priorities. We are redefining how our work is done by consolidating our eight core competencies into four, providing consistent development opportunities for every employee. We also plan to update our performance management system, encouraging feedback on a regular basis rather than only at mid-year and year’s end. This gives employees the opportunity to note and celebrate wins with their supervisor as they occur.

Effective Jan. 1, 2020, all nonagreement employees will receive an enhanced vacation benefit. Previously, our “use it or lose it” vacation policy limited vacation carryover at year's end to a maximum of five days and required it be taken by March 31. Unused vacation will now carry over without an expiration date. The new policy also provides more frequent vacation increments. Rather than occurring at 10 and 20 years of service, the enhanced policy for nonagreement employees provides added vacation days at 7, 10, 15 and 20 years of service.

Union Pacific will continue to ask for employee feedback via surveys and focus groups. Through this work, employees requested additional voluntary benefit offerings. In 2020, we plan to launch a marketplace that leverages group purchasing power to provide discounted rates and convenient payment options for things such as auto, home/renters and pet insurance, as well as identity theft protection.

We plan to host a Peer Support leadership conference, bringing regional volunteers together to network, share best practices and build momentum for an important part of our well-being support structure. Peer Support provides invaluable resources to those facing crises at home or work.
Protecting the Environment

A healthy environment is an essential foundation for a strong country and a vibrant economy. Our vision of Building America involves protecting and strengthening this foundation.

Railroads are one of the most fuel efficient means of transportation. On average, trains are up to four times more fuel efficient than trucks. That means moving freight by rail instead of truck reduces greenhouse gas emissions by up to 75%.

On average, Union Pacific moves a ton of freight 444 miles on a gallon of diesel fuel. If 10% of freight currently moved by the nation’s largest commercial trucks was transported by rail instead, fuel savings would be more than 1.5 billion gallons per year and annual greenhouse gas emissions would fall by more than 17 million tons – equivalent to removing around 3.2 million cars from highways for a year or planting 400 million trees.

We move freight in an environmentally responsible way, enabling sustainable economic growth, but we are not complacent about our operations’ impact. As we work to reduce our GHG emissions, we are setting science-based targets to determine how much and how quickly we need to act to support global climate change goals outlined in the Paris Agreement. The agreement encourages all nations to combat climate change by keeping the global temperature rise this century well below 2°C above pre-industrial levels. Our actions also enable our customers to reduce their carbon footprint and create meaningful global change.
Our Approach to Environmental Management

Union Pacific’s goal is to be a leader in moving goods in a fuel-efficient and environmentally responsible manner. Environmental Management policies and procedures provide a pathway for the company to meet or exceed applicable environmental laws and regulations.

Union Pacific’s Environmental Management System improves processes and tracks performance. We strive to improve our performance by investing in technology, maintaining equipment and training employees in environmentally responsible behaviors.

Every Union Pacific employee must commit to preventing pollution, complying with regulations and continuously improving our environment, according to the company’s environmental policy signed by Chairman, President and CEO Lance Fritz.

Our Environmental Management team oversees environmental compliance and is integrated into daily operations. The team rigorously plans, coordinates and communicates environmental requirements and best practices.

ENVIRONMENTAL RISK MANAGEMENT

Union Pacific’s assistant vice president of Fuel and Environmental Management is directly responsible for the company’s progress regarding environmental compliance and provides an annual report to the board of directors. Continuous improvement in achieving the company’s fuel efficiency goals, which directly impacts our emissions, is tied to our performance review process.

COMPLIANCE

Union Pacific is subject to federal and state environmental statutes and regulations related to public health and environment, which are administered and monitored by the U.S. Environmental Protection Agency (EPA) and other federal and state agencies. Primary federal laws affecting rail operations include:

- Resource Conservation and Recovery Act, regulating solid and hazardous waste management and disposal.
- Comprehensive Environmental Response, Compensation, and Liability Act, governing contaminated property cleanup.
- Clean Air Act, regulating air emissions.
- Clean Water Act, protecting the country's waters.

Union Pacific is committed to following applicable laws and regulations in all areas of our operations. From time to time, we are involved in legal proceedings, claims and litigation that occur in connection with our business. For example, we received notices from the EPA and state environmental agencies for remediation costs at various sites throughout the U.S., including sites on the Superfund National Priorities List or state superfund lists. We cannot predict the ultimate impact of these proceedings and suits because of the number of potentially responsible parties involved, the degree of contamination by various wastes, the scarcity and quality of volumetric data related to many of the sites, and the speculative nature of remediation costs. Where we are found in violation of specific rules or regulations, we seek remedy through the appropriate channels. More information on these notices can be found in our Annual Form 10-K.

OUR ENVIRONMENTAL PARTNERS

We collaborate with a range of partners to identify opportunities to reduce our environmental impact and manage our land responsibly. Organizations with which Union Pacific collaborates include:

- GreenBiz Network, a peer-to-peer learning forum for sustainability executives from a diverse group of some of the world’s largest companies.
- The California Council for Environmental and Economic Balance, a nonprofit, nonpartisan coalition of industry, labor and public leaders working to solve the most pressing environmental policy problems facing California.
- The Association of American Railroads Environmental Affairs Committee, a rail industry forum sharing best practices.
Climate Change and Environmental Risks

We understand the Earth’s climate is changing and that human activities are part of the cause. As one of the nation’s largest freight railroads, it is our responsibility to act as environmental stewards, working to reduce fuel consumption and greenhouse gas (GHG) emissions, providing for a more sustainable future.

Railroads move approximately one-third of all U.S. exports and intercity freight volume in the United States. Despite the large volume, EPA data shows freight railroads only account for 0.5% of total U.S. GHG emissions and just 2% of emissions from transportation-related sources. At Union Pacific, we move a ton of freight 444 miles on a single gallon of diesel fuel, but we can do better. We are committed to investing in technology that helps us identify fuel saving opportunities and increase locomotive productivity. For example, software helps us predict potential locomotive failures. It runs while a train is traveling our network, rather than requiring the locomotive to operate in a static position inside our yard, burning fuel.

While working to improve our environmental footprint, we also have robust processes in place to respond to climate change impacts. Union Pacific acts to strengthen our network’s resiliency from potential effects of extreme weather events such as blizzards, floods and hurricanes, which could lead to slower train speeds, service interruptions, track damage and recovery costs. We have emergency response procedures, which include moving required resources to regions likely to be affected. We also are pursuing improvements that further increase our infrastructure’s resiliency, including mitigating the impact of potential sea level rise.

For additional information on how climate change could have a material adverse effect on operations results, financial condition and liquidity, see the risk factors in Union Pacific’s Annual Form 10-K and CDP Filings. Union Pacific earned a B rating on the CDP’s Climate Change Survey. This is the 12th consecutive year we submitted climate change data to CDP.

RESPONDING TO HISTORIC FLOODS

After historic flooding battered the Midwest, it took heroic efforts by Union Pacific employees across all crafts and departments to restore the railroad at a cost of approximately $70 million. The flooding was triggered by a March storm that produced winds between 96 mph and 110 mph, unleashing an epic mix of melting snow and rain that caused ice jams that pulverized our railroad bridges. The biggest impact occurred in Nebraska, stretching along track equal to more than 20 football fields in length. It cut across the heart of the transcontinental main line and associated arteries that carry roughly 90 trains per day in and out of North Platte, home to the world’s largest freight rail classification yard. It is the main route for trains that haul products such as grain, rock, coal, electronics, furniture, lumber and steel.

The historic reconstruction effort required:

- 65,000 tons of road bed materials.
- Six large trains delivering 72,000 tons of ballast, rock and other items.
- A total of 137,000 tons of track materials, the equivalent weight of more than 2,700 bulldozers.
- 21 excavators.
- 20 hyrail rotary dump trucks.
- 10 bulldozers.
- Nine hyrail excavators.

While the reconstruction work was underway, trains had to be rerouted to deliver goods to customers. Union Pacific worked closely with grain customers to prioritize trains destined for feeding animals while directing other grain trains out of affected areas. Additional information about the recovery effort and a video showing the widespread damage is available at up.com.

Union Pacific’s Southern Region was also impacted by heavy rainfall and flooding over the Memorial Day weekend in Arkansas, Kansas, Missouri and Oklahoma. Up to 50 trains were rerouted each day, while crews worked in shifts around the clock to restore service.

Rerouting trains puts additional stress on other areas of the railroad and impacts our communities. The Little Rock area was hit especially hard, and we knew a full recovery would take some time. In an effort to relieve traffic, our Engineering team constructed a detour track, allowing train traffic to move more freely from Little Rock south to Pine Bluff. This process typically takes three months, but with the community’s support the Union Pacific team accomplished it in three days. The temporary connection involved demolishing buildings, closing road crossings, laying track panels, installing two switches, and required significant collaboration and cooperation from the local government. A previously designed, permanent connection was built over summer.

RESPONDING TO HISTORIC FLOODS

The Big Bend Subdivision near Eufaula, Oklahoma, completely underwater.

Source: American Association of Railroads
HELPING OUR NEIGHBORS

As the railroad worked to recover, our employees went above and beyond offering community aid. With roads and highways under water, Union Pacific’s bridge near Waterloo, Nebraska, was the last viable route open. The railroad partnered with Douglas County Emergency Management to evacuate about 60 residents, and a few pets, using hyrail trucks to cross the bridge. Special Agent Adam Hoskins and his family used their own van to take evacuees from the drop-off point to a nearby shelter in Elkhorn, Nebraska.

The Community Ties Giving Program donated $25,000 to our Friend to Friend Network to help impacted employees and $50,000 to the American Red Cross to support the thousands of residents who had to rebuild once the water receded. We also matched employee contributions to the American Red Cross and United Way of the Midlands.

EMPLOYEES SHINE DURING CALIFORNIA POWER OUTAGES

When widespread power outages struck Northern California in October, Union Pacific’s responsive employees stabilized network connectivity and maintained safe, reliable and efficient service for customers. Immediately following Pacific Gas & Electric Company’s sudden power line shutdown to prevent wildfires due to strong winds, our Signal Maintenance, Signal Construction and Supply Chain teams located alternative power sources, adding to the 90 portable generators on hand to maintain power to eight subdivisions and more than 300 signal locations. Operating without power would have required hand-operated switching, as well as manual flagging at crossings/control points, causing network delays, and potentially impacting communities and customer service.

‘SHOVELING’ THE SNOW

Severe winter had a substantial impact in early 2019 across the Midwest, Pacific Northwest and in Northern California. We saw record snowfall and record sub-zero temperatures in Illinois, Iowa, Minnesota, Nebraska and Wisconsin, slowing the network and causing outages. Snow in Oregon downed more than 100 trees across our tracks.

When we know winter weather is coming, we deploy additional equipment and employees. During snowstorms, road crews run “snow buses,” or locomotives without freight, across rail lines every two to three hours to keep them open. When the storm abates, flangers clear snow from between the rails, and spreaders push snowdrifts away from the tracks.
TAKING ACTION TO REDUCE EMISSIONS

It’s clear our climate is changing, and Union Pacific is taking action to reduce our GHG emissions. We are committed to setting targets through the Science Based Targets Initiative, which independently assesses corporate emissions reduction targets in line with what climate scientists say is needed to meet the goals of the Paris Agreement – limiting global warming to well below 2°C above pre-industrial levels. We believe this is an important step to help us determine how much and how quickly we need to reduce our emissions, as well as anticipate future policies and regulations.

We submitted our commitment letter in early 2020 and plan to announce our target in the 2020 Building America Report. This is not an easy task, as it means examining every aspect of our operation and looking for innovative solutions. However, it is an important step toward a more sustainable future, and we hope our actions inspire other railroads and our supply chain partners to take action.

California has some of the strictest pollution control requirements in the nation. Union Pacific has collaborated with regulators for decades to deliver emissions improvements, and we continue to do so. We hosted approximately 40 community members and regulatory staff at our Intermodal Container Transfer Facility (ICTF) in Long Beach. The South Coast Air Quality Management District arranged the tour as part of the state’s efforts to address air pollution in high-priority communities. Members saw first-hand the work Union Pacific is doing. We completed inventories of multiple California rail yards, showing diesel particulate emissions have dropped, on average, by approximately 70% since 2005.

We understand reducing our GHG emissions isn’t limited to our locomotive fleet. There are other ways we can eliminate carbon dioxide. For example, we purchased nearly 14,000 square yards of carbon neutral flooring, resulting in the retirement of 120 metric tons of carbon dioxide. That’s the equivalent of a car traveling nearly 300,000 miles, or driving between Los Angeles and New York City 105 times.

GREENHOUSE GAS EMISSIONS PERFORMANCE

Union Pacific locomotives produced 9,688,964 metric tons of GHG emissions, down from 10,874,731 metric tons in 2018 due to decreased freight volume combined with significant improvements in operational efficiency achieved through Unified Plan 2020.

We used more renewable and biodiesel fuel, and a higher percentage of our emissions came from non-petroleum based products. Our biomass source emissions were 127,645 metric tons, including 49,555 metric tons or 39% from renewable fuels. This is an increase from 122,692 metric tons in 2018, which included 36,757 metric tons or 30% from renewable fuel. The increase is largely due to increasing the amount of renewable diesel blend we use in California.

Scope 3 emissions from employee travel totaled 15,495 metric tons, a decrease from 17,138 metric tons in 2018. Employee travel includes rental car fuel and commercial air travel.

GHG VERIFICATION

Union Pacific works with independent organizations to assure an accurate annual GHG emissions calculation. Cadmus Group assist with methodology to accurately measure and calculate GHG inventory. GHD Limited will verify our GHG emissions inventory.

WORKING WITH CUSTOMERS TO REDUCE EMISSIONS

Customers seeking to reduce carbon emissions can calculate savings from rail by using Union Pacific’s online Carbon Emissions Estimator. Many also receive annual emissions savings estimates compared to moving goods by truck. Our customers eliminated an estimated 25 million metric tons of GHG emissions by choosing rail over truck transportation.

EMPLOYEE SPOTLIGHT

As a former Navy fighter pilot, Justin Hendrickson, director-System Locomotive Facilities, combines his passion for safe, reliable transportation with his dedication to protect the environment by adhering to locomotive shutdown procedures and performing periodic emissions maintenance. His team played a key role in multiple low-emissions locomotive initiatives and is responsible for bringing the company’s first Tier 4 switchers into operation. Based in Roseville, California, Hendrickson believes the support of area environmental agencies and key partnerships is critical to helping Union Pacific produce fewer emissions.

“Our integrating innovative technology and strategically monitoring our impact to pave the way for a better future,” Hendrickson said.
Managing Fuel and Locomotives

We strive to appropriately balance financial returns, environmental performance and social commitment. Fuel efficiency plays a critical part with diesel fuel accounting for approximately 16% of our total operating expenses. Our employees are dedicated to finding ways to reduce diesel fuel consumption as a fundamental element of our ESG approach.

Fuel efficiency and carbon emission reductions fluctuate based on business volumes and commodity mix. The heavier a train, the more fuel efficient it can be. Our fuel consumption rate, measured in gallons of fuel per thousand gross ton miles, improved 2% in 2019 compared to 2018. We remain steadfast in our commitment to reduce overall locomotive consumption by 1.5% from 2018 to 2020.

LESS FUEL = CLEANER AIR

One way we’re saving fuel is standardizing our processes to turn locomotives off, rather than let them idle. Jordan Shinn, manager – Locomotive and Resource Management, Harriman Dispatching Center, visited multiple yards systemwide and found there wasn’t a uniform procedure. He created standard work and is educating Union Pacific employees on how to reduce locomotive idling. For example, if the ambient temperature is not expected to drop below 35°F within four hours, the locomotive should not idle. Since the project’s implementation in Salt Lake City, train crews in the Rocky Mountain Service Unit have reduced unproductive idling by 18% per locomotive.

MODERNIZING LOCOMOTIVES

Union Pacific did not acquire new locomotives in 2019, and we do not plan to purchase any in 2020; however, we continue modernizing our existing fleet. Nearly 350 high- and low-horsepower locomotives were overhauled, meaning they were completely rebuilt to meet more stringent emissions standards. The locomotives receive new engines and other mechanical components, based on their age and mileage. The majority of retrofitting takes place at the Jenks Locomotive Shop in North Little Rock, Arkansas.

We invested in 17 additional “mother-slug” sets, with three being finished in early 2020. Mother-slug sets replace two locomotives with one diesel locomotive connected to an accessory, or slug. We use older SD38-2 locomotives, typically with higher emissions, for the conversion and remove the engine and alternator. The engineless slug increases traction motors available to the locomotive, boosting the pulling and braking power – key for yard operations. The new mother-slug sets achieve fuel and maintenance savings, plus offer environmental benefits, mainly because only one engine is being used versus two. We began rolling out this equipment in 2017 and have more than 60 sets operating in yards systemwide.

Union Pacific received its tenth and final Tier 4 single-engine switching locomotive for exclusive use in California. The Sacramento Metropolitan Air Quality Management District and the Bay Area Air Quality Management District awarded approximately $15 million in grants to repower 10 diesel-electric switching locomotives into new EPA-certified Tier 4 single-engine switching locomotives. Switching locomotives operate within rail yards, assembling and disassembling trains. Because they work within a concentrated area, improving switching locomotive emission levels can improve the local air quality by more than 90%. Union Pacific is the only Class I railroad operating Tier 4 Genset switchers and is the first Class 1 to pursue Tier 4 single-engine repowers.

We have invested roughly $3.4 billion to purchase more than 1,300 new locomotives since 2009. These locomotives all meet the EPA’s tier standards. Union Pacific retired more than 2,300 older, less fuel efficient locomotives over the same period. As a result of new locomotive and refurbishment programs, about 98% of Union Pacific locomotives meet EPA emissions standards.

EMPLOYEE SPOTLIGHT

Union Pacific has fuel storage tanks located across its system. Ensuring they are properly maintained is a passion for Fuel Operations Manager John Martin, who makes it a priority to establish, communicate and support environmental efforts with integrity. He recently received a national certification for inspecting and maintaining aboveground storage tanks.

“Each location has unique needs that require deep interaction and planning with our employees and suppliers,” Martin said. “Our goal is that the end user never has to worry about safety, spills or operational issues.”
Incorporating Technology

Technology plays a fundamental role in Union Pacific's fuel efficiency performance, supporting the train crews responsible for the daily movement of goods Americans rely on. The following technologies help drive fuel efficiency across the system.

Trip Optimizer® and LEADER® are energy management systems that work like cruise control. They automatically control a locomotive's throttle and dynamic brake to reduce fuel usage, minimize GHG emissions and optimize train handling. The systems calculate the most efficient way of operating a train by considering such factors as train length, weight, grade, track conditions and locomotive performance.

Our more than 2,000 LEADER- and Trip Optimizer-enabled locomotives completed more than 10 million miles with auto control in use by locomotive engineers. We deployed enhancements that allow the systems to integrate with PTC, providing increased efficiency opportunities. The operational territory of both energy management systems was expanded to more than 17,000 route miles, matching Union Pacific’s PTC territory.

Process improvements reduce fuel consumption and GHG emissions by optimizing how we manage and maintain locomotives. For example, Union Pacific’s cross-functional Fuel Mizers Load Testing Reduction Team implemented a more efficient process for locomotive tests that ensures engines and generators produce enough horsepower to pull loaded rail cars. The process reduces fuel consumption cost by more than $3.5 million annually and improves reliability.
Energy Conservation

Union Pacific’s utility conservation projects reduced energy consumption by 2.7 million kWh, which is enough to annually power more than 247 U.S. homes. Some projects were employee-driven solutions.

We continue to see energy savings through solar panels at two intermodal facilities: Global IV in Joliet, Illinois, and Santa Teresa in Santa Teresa, New Mexico. In both locations, the solar arrays are tied to the electrical power grid, providing energy to offset the amount we consume from the utility company.

<table>
<thead>
<tr>
<th>ENERGY CONSUMPTION*</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>1,010.6 GALLONS</td>
<td>1,075.1 GALLONS</td>
<td>957.7 GALLONS</td>
</tr>
<tr>
<td>Gasoline</td>
<td>11.5 GALLONS</td>
<td>10.7 GALLONS</td>
<td>10.1 GALLONS</td>
</tr>
<tr>
<td>Other fuel1</td>
<td>10.9 GALLONS</td>
<td>15.2 GALLONS</td>
<td>16.2 GALLONS</td>
</tr>
<tr>
<td>Electricity</td>
<td>682.9 KILOWATT HOURS</td>
<td>899.4 KILOWATT HOURS</td>
<td>662.6 KILOWATT HOURS</td>
</tr>
<tr>
<td>Natural gas</td>
<td>1,015.3 STANDARD CUBIC FEET</td>
<td>1,059.0 STANDARD CUBIC FEET</td>
<td>961.0 STANDARD CUBIC FEET</td>
</tr>
</tbody>
</table>

*Estimated in millions
1 Other fuel includes sources such as jet fuel, propane and kerosene.

A BRIGHT SOLUTION REDUCES ENERGY USE

Union Pacific continues to work on reducing its carbon footprint by using LED light bulbs. In addition to financial savings, these options place less demand on the nation’s energy grid and, ultimately, the natural resources used to power it.

We replaced approximately 6,900 light bulbs at Union Pacific Center in Omaha, Nebraska, providing an even light level and color for employees working throughout the 19-story building. The new LED lights reduce the facility’s electrical consumption by 800,000 kWh annually and have a 15-year life span.

Similar projects took place at locomotive shops, supply warehouses and other facilities. For example, we replaced 71 metal halide high-bay fixtures at Union Pacific’s Dolores Locomotive Shop in Los Angeles, California. The project reduces our electrical consumption by more than 115,000 kWh, enough to power 10 homes for a year. Equally important, the better lighting requires less maintenance and provides a safer work environment for employees working around heavy equipment.
Waste Management

Despite growing challenges in the recycling market, Union Pacific generated an estimated 1.43 million tons of waste and diverted approximately 68% from landfills. We recycled about 485,000 tons of scrap metal, a higher volume than typical due to increased rail car scrapping. Metal is the second largest contributor – behind rail ties – to our success diverting recyclable materials from landfills. Steel, aluminum and copper are the most recycled materials on the planet and found in a variety of unexpected products. From appliances to cell phones, buildings and highways, recyclable materials are globally transforming construction and consumer products.

We provide steel recycling bins for employee use at fixed facilities, along our right of way and at off-site locations. Recyclable material includes rail car parts, locomotive parts, rail, tie plates, spikes and anchors. We are proud of our employees who recycled more than 49,800 tons of scrap, a 61% increase over the more than 30,000 tons recycled in 2018.

Union Pacific scraps rail cars that have reached the end of their useful life. In many cases, scrapers strip useful parts from the cars, which are sold back to Union Pacific for continued use. The remaining metal can be re-purposed in the manufacturing of other metal components without drawing from our natural resources. We work with several vendors who use the recycled metal to create new rail and other steel products, which we purchase and put back into our system.

ALTERNATIVE RAILROAD TIE KEEPS UNION PACIFIC ON TRACK

Finding alternatives to wood ties is an important step toward improving our sustainability, especially in high-decay areas such as the Gulf Coast. Railroad ties are perpendicular pieces that support the rail, holding it upright and keeping it properly spaced. To date, Union Pacific has installed more than 1 million composite ties, which are made of 100% recycled plastic and can be recycled at the end of their life. But rather than wait five, 10 or 15 years to determine their life cycle, our Engineering team is using new in-house equipment to reduce the wait. The machine simulates a train going across the track, mimicking conditions the ties would undergo in the field, as well as air temperature to show the impact of extreme heating and cooling.

“The results will allow us to determine the feasibility of supplementing wood ties installation with composite ties, with a goal of improving the longevity of our existing infrastructure,” said Rachel Beck, senior manager – Methods and Research, Engineering.

NEW HIGH-TECH EQUIPMENT SPEEDS USED TIE CLEANUP PROCESS

Tie gangs work across our system like a moving factory, installing and replacing between 3 million to 4 million railroad ties every year. Typically, contractors use trucks and front-end loaders to pick up used ties along the right of way. It can take multiple trips to gather all the ties and transport them to a rail facility, where they are loaded onto a train for departure. On a good day, contractors can pick up around 2,500 ties.

Now, we’re using high-tech work equipment to speed up the used-tie cleanup process. The Maintenance of Way Tie Pickup work equipment has two giant excavators that ride along the top of a series of connected 70-foot-long rail cars. Operators in the excavators – which look like front-end loaders – pickup tie bundles left in stacks along the right of way. Depending on the ties’ size, each rail car holds 500 to 700 ties, which is about the same number it can pick up in an hour. Once the rail cars are fully loaded, the train departs directly to one of three facilities where ties are recycled or shredded for cogeneration fuel. Used railroad ties are not offered to the general public for reuse. The new system doubles the number of railroad ties that can be disposed of per day to nearly 5,000, saving gas used by contractors and reducing emissions.

RECYCLING FUEL AND OIL

We recycled more than 1.6 million gallons of oil and fuel at our facilities. Union Pacific facilities have systems to catch spills and extract engine oil from wastewater. Facilities also use fuel nozzles that shut off automatically, preventing locomotive fuel tank overflow.

EMPLOYEE SPOTLIGHT

Asset Disposition Manager Ann Holland investigates ongoing inventory reduction efforts, addressing inefficiencies and proposing cost-effective solutions. She worked closely with the Engineering Department to fill nearly 400 strategically located bins with used steel rails and other track material in 2019.

“In addition to preventing material pileup, we put an emphasis on clearing our right of ways, doubling the volume of recycled scrap metal across our network,” Holland said.
Water Management

Many parts of the country experience water stress in local and regional watersheds. The U.S. Global Change Research Program notes widespread stress in much of the Southwest, western Great Plains and parts of the Northwest. Union Pacific helps protect water resources from our operations with Stormwater Pollution Prevention Plans at 180 facilities, as well as spill prevention controls and countermeasure plans at more than 130 facilities. About 90 wastewater treatment facilities capture and treat water from equipment washing and maintenance. We also treated wastewater to comply with government regulations and wastewater discharge permits.

Union Pacific used an estimated 905 million gallons of water, a decrease from 1.2 billion in 2018. We continue exploring ways to conserve water by analyzing accounts, researching irregularities, and making changes and repairs to eliminate unnecessary use. Our team is focused on using data to identify and address consumption changes, which might suggest a leak or other issue. We saved an estimated 6.7 million gallons by fixing identified leaks in locations including Kansas City, Missouri, and Ft. Worth, Texas, and replacing a water tank in Coachella, California.

REPORTING WATER CONSUMPTION TO CDP

Union Pacific was the first Class 1 railroad to report water consumption to CDP, which we submitted for the sixth consecutive year and received a B-.

A SCIENTIFIC APPROACH TO FLOOD RISK MANAGEMENT

Union Pacific works with scientists at the U.S. National Oceanic and Atmospheric Administration (NOAA) to determine which spots along our 32,000-mile network are most vulnerable to catastrophic water flows from storms and build a resiliency plan. That could mean creating culverts or raising the railroad tracks – whatever it takes to maintain traffic flow.

Overall, we are seeing positive results. In 2018, we invested more than $7 million and performed flood mitigation work in approximately 12 locations along the Austin Subdivision in Texas, stabilizing rock around the track, cleaning culverts and upgrading drainage systems. These locations have been repeatedly impacted by flooding; however, we did not have an issue in 2019.

Our Engineering Department identified similar areas across the system where repeat issues occur, including the Falls City and Marysville Subdivisions in Nebraska, the River Subdivision in Missouri and the Parsons Subdivision in Kansas. Plans and projects were developed to address these locations. Crews established new drainage ditches, cleared right of way, reshaped slopes and “armored” culverts, meaning we added rock around the culvert/ditch to reduce the impact of running water. We will continue these projects systemwide throughout 2020 and beyond. It’s important to note, this kind of work requires close collaboration with our neighbors and government entities to ensure adjustments to our track and the surrounding area don’t redirect the water to negatively impact other properties or communities.

We launched a pilot program in December installing sensors along the tracks near Tama, Iowa. The sensors monitor water levels, and if they rise to a specific point, we receive a real-time alert. The sensors are a way for us to monitor changing conditions and respond in advance of a catastrophic water event.

In addition to our efforts to stay ahead of Mother Nature, we continue to vigilantly monitor extreme weather and water events. We have established specific protocols to respond to these events, including stockpiling material, dispatching emergency response teams, developing alternative train operations, preparing surge resources (ie. Engineering work crews, pumps, generators, locomotives and ballast) and moving equipment into recovery position.

Supply Chain Operations Manager Duane Merchant oversees material handling efforts in Houston, Texas, and ensures measures are in place to prevent an incident that could impact area waterways. She inspects inventory, enforces safety protocols and recommends process improvements that promote efficiency at area Mechanical facilities.

“We take great pride in ensuring local water sources remain clean by engaging in several initiatives, such as storm drain cover installation and tank capping,” she said. “These small measures have the greatest impact to preserve communities’ quality of life, and it matters to me that I’m purposeful in protecting our environment.”
Biodiversity refers to the variety of living organisms in a particular habitat or ecosystem. Union Pacific’s footprint touches many diverse ecosystems, and we are committed to being a responsible steward of the land we own. We work to preserve our ecosystems, improve our resiliency and reduce our impact. This is fundamental to ensuring a healthy environment and supporting vibrant local economies.

Union Pacific implements habitat conservation plans to protect ecosystems and endangered species in various locations. Plans in the western half of our network address species including the desert tortoise, endangered Southwestern willow flycatcher and valley elderberry longhorn beetle.

We also engage with community partners and nonprofit organizations working to protect our natural resources or reinvigorate specific ecosystem needs. For example, we supported Trees for Houston, providing a grant to plant and maintain trees leading to a healthier Houston area. During the 2018-2019 planting season, more than 21,000 new trees were planted along bayous, streets, trails and at schools. In Colorado, we worked with the Rocky Mountain Field Institute, supporting their Community Environmental Stewardship Program, which empowers youth and adult volunteers to play a hands-on role in conservation in the Pikes Peak region. Each year, the program actively engages and educates 2,300 volunteers who contribute more than 24,000 hours toward the protection of public wild lands.

What's Ahead

We are analyzing data and working to set a realistic target supporting global climate change goals. We anticipate finishing this work and submitting our plan to the Science Based Targets Initiative for validation in 2020.

Leveraging efficiencies gained under our Unified Plan 2020 initiatives, we will continue diligently working toward achieving our three-year fuel consumption goal – reducing locomotive consumption by 1.5% in total from 2018 to 2020. One way we are optimizing fuel consumption is expanding our energy management systems (EMS) by equipping most of our high-horsepower locomotive fleet with the technology. Enhancements will be added over the next several years to provide advanced control of individual locomotives on trains with more than one in the consist. This technology also will integrate with back office planning systems, providing additional opportunities for fuel savings.
Appendix
Appendix

FEEDBACK
For questions on this report or to provide feedback, contact Union Pacific via email at sustainability@up.com.

ADDITIONAL RESOURCES
For ongoing updates on our citizenship and sustainability efforts, visit www.up.com.
• Media – Up-to-date information about Union Pacific.
• Environment – Sustainability commitments and progress.
• Employees – Programs and services available to our workforce.
• Customers – Product offerings and business groups.
• Investors – Annual report, proxy statements and other SEC filings.
• Communities – News, photos and video about Union Pacific and the communities where we operate.
• Careers – Career opportunities and benefits to joining Union Pacific’s workforce.

CAUTIONARY INFORMATION
Our 2019 Building America Report provides additional explanatory information regarding Union Pacific that may not be available, included or directly derived from information in the company’s Annual Report.

This report includes statements and information regarding future expectations or results of the company that are not historical facts. These statements and information are, or will be forward looking as defined by federal securities laws. Forward-looking statements and information can be identified by use of forward-looking terminology (and derivations thereof), such as “believes,” “expects,” “may,” “should,” “will,” “would,” “intends,” “plans,” “estimates,” “anticipates,” “projects” and other words or phrases of similar intent. Forward-looking statements and information generally include the following: the company’s expectations or forecasts with respect to general economic conditions in the United States and the world; the company’s financial and operational performance; increases of the company’s earnings; demand for the company’s rail service; improving customer service; enhancing profitability; volume and revenue growth; efficiency improvements and increasing returns; and improving asset utilization. Statements also include the effectiveness or growth of new and newer services; management of network volumes; increasing shareholder value; total amount of capital investments; completion and effectiveness of capacity expansion and other capital investments, and other investments in infrastructure improvements; returns on capital investments; improvements regarding safety of our operations and equipment; improving efficiencies in fuel consumption; preserving the environment and communities where the company operates; and effectiveness of plans, programs and initiatives to reduce costs and other efficiency improvements.

Forward-looking statements and information should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times that, or by which, such performance or results will be achieved. Forward-looking statements and information are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the statements. Forward-looking statements and information reflect the good faith consideration by management of currently available information and may be based on underlying assumptions believed to be reasonable under the circumstances. However, such information and assumptions (and, therefore, such forward-looking statements and information) are or may be subject to variables or unknown or unforeseeable events or circumstances over which management has little or no influence or control.

The risk factors in Item 1A of the company’s Annual Form 10-K, filed Feb. 7, 2020, could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in the forward-looking statements and information. This report should be read in consideration of these risk factors. To the extent circumstances require or the company deems it otherwise necessary, the company will update or amend these risk factors in subsequent Annual Reports, periodic reports on Form 10-Q or current reports on Form 8-K.

Forward-looking statements speak only as of the date the statement was made. We assume no obligation to update forward-looking information to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect thereto or with respect to other forward-looking statements.
### Materiality Assessment Key Issues

<table>
<thead>
<tr>
<th>Corporate Governance</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance and Ethics</td>
<td>Corporate management approach and governance structure, including a culture of respect and observance of business ethics throughout the company.</td>
</tr>
<tr>
<td>Enterprise Risk Management</td>
<td>Systems and controls to effectively identify, assess and prepare for events that pose a risk to the company’s operations and objectives.</td>
</tr>
<tr>
<td>Legislation, Regulation and Government Relations</td>
<td>Understand the potential or existing business impacts of legislative and regulatory actions and building relationships with elected officials.</td>
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<table>
<thead>
<tr>
<th>Talent</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Talent Management</td>
<td>Efforts to attract, retain and develop the best talent for the company.</td>
</tr>
<tr>
<td>Diversity and Inclusion</td>
<td>Providing equal opportunity for employees and executives who represent diversity in all aspects.</td>
</tr>
<tr>
<td>Employment Practices</td>
<td>Employee compensation and benefits and the efficacy of policies and practices that maintain a healthy and safe work environment and promote employee well-being.</td>
</tr>
<tr>
<td>Labor Rights</td>
<td>Ensuring the fundamental rights of workers, such as freedom of association and the right to collective bargaining.</td>
</tr>
<tr>
<td>Employee Engagement</td>
<td>Efforts to enhance employees’ commitment to Union Pacific and its goals, through workplace relationships, employee rewards, job responsibilities and personal growth opportunities.</td>
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<table>
<thead>
<tr>
<th>Business Operations</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Customer Service and Satisfaction</td>
<td>Efforts to meet or exceed customer expectations and build productive customer relationships.</td>
</tr>
<tr>
<td>Responsible Sourcing</td>
<td>Maintaining a diverse and responsible supply chain that ensures ethical business conduct and proactively manages its social and environmental impacts.</td>
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<thead>
<tr>
<th>Safety and Security</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Emergency Preparedness</td>
<td>Measures taken to prepare for and reduce the impacts of disasters, including but not limited to building relationships with emergency responders and preventing incidents involving hazardous materials.</td>
</tr>
<tr>
<td>Rail Safety and Maintenance</td>
<td>Efforts to maintain quality rail infrastructure and prevent derailments, including track inspections and other measures.</td>
</tr>
<tr>
<td>Digital and Physical Asset Security</td>
<td>Protecting the company's critical physical infrastructure and data.</td>
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<table>
<thead>
<tr>
<th>Environment</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Emissions and Energy Use</td>
<td>Energy use and the resulting direct and indirect greenhouse gas (GHG) emissions (Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions not included in Scope 2).</td>
</tr>
<tr>
<td>Land Management and Biodiversity</td>
<td>Managing the use and development of land resources and the potential impact of our supply chain and operational activities on biodiversity (the variety and variability of living organisms).</td>
</tr>
<tr>
<td>Water Use and Management</td>
<td>Water usage and the efficient management of water resources.</td>
</tr>
<tr>
<td>Waste Disposal and Reuse</td>
<td>Waste generated, recycling and other efforts to divert waste from landfills.</td>
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<tr>
<th>Community</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Community Involvement and Philanthropy</td>
<td>Activities to strengthen the communities within which we operate, including through corporate philanthropy, partnerships and employee volunteering.</td>
</tr>
<tr>
<td>Infrastructure Investment and Protection</td>
<td>Investing in and protecting our network infrastructure and working with regulatory officials to align our business with the country’s infrastructure requirements and needs.</td>
</tr>
</tbody>
</table>