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THE STATE OF THE RAIL WORKFORCE

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HEARING

BEFORE THE

SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS

OF THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE HOUSE OF REPRESENTATIVES

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THE STATE OF THE RAIL WORKFORCE

THURSDAY, JUNE 20, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND
HAZARDOUS MATERIALS,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:01 a.m. in room 2167, Rayburn House Office Building, Hon. Daniel Lipinski (Chairman of the subcommittee) presiding.

Mr. LIPINSKI. The subcommittee will come to order. I want to welcome everyone here this morning to the hearing of the Railroads, Pipelines, and Hazardous Materials Subcommittee. We will be looking at the state of the rail workforce.

Railroads, and the men and women who make them run, are a key component of the American economy. According to the Association of American Railroads, in 2017 major U.S. railroads supported over 1.1 million jobs, $219.5 billion in annual economic activity, and $71.3 billion in wages, while creating nearly $26 billion in total tax revenues.

In my home region of northeastern Illinois, six Class I railroads interact, along with multiple short lines, while Metra and Amtrak run hundreds of trains over the same tracks.

The confluence of all these railroads make northeastern Illinois the rail hub of North America.

The more than 160,000 railroad workers in this country are the backbone of the industry, and keep our world-class rail system the powerful economic force that it is.

In northeastern Illinois, thousands of workers get 1,300 Metra, Amtrak, and freight trains to their destinations on a daily basis. There is no doubt that, without the men and women who are on the front lines, the industry would not be the success it is today.

Historically, in return, the railroads have provided good-paying jobs with good benefits for their workers. It is important that this continues. Today we will hear from a number of witnesses about the widespread changes that are taking place in the railroad industry, and the impact that these changes are having on the rail workforce.

Two of the significant changes we have seen recently are longer trains and the adoption of Precision Scheduled Railroading, or PSR. These changes in rail operations have raised concerns about working conditions and safety, as well as negative community impacts and the quality of service being provided.

Freight railroads are now running consistently longer trains, upwards of 10,000 to 15,000 feet. That equates to 2- or 3-mile-long trains. Or, to put it another way, 33 football fields. However, the rail infrastructure has largely gone unchanged. This has led to operational challenges such as increased blocked crossings, or idling on mainline tracks for extended periods of time. This causes problems for workers, and also for communities.

These are issues that I have seen in my district forever. But they are getting worse in other places. One example is in the Chicago neighborhoods of Mount Greenwood and Beverly. Now these types of issues are being seen in more districts across the country.

I am pleased that the THUD appropriations bill has report language on blocked crossings that I asked to be included, so we can work on solutions to some of these issues. But solutions across the country require significant infrastructure investment.

Another notable trend in the railroad industry is the adoption of PSR. All but one of the Class I railroads have adopted or are in the process of adopting PSR. At its essence, this is a fundamental shift in how railroads operate. The move in the industry towards PSR has been accompanied with significant job cuts in the past few years. Class I railroads and Amtrak employed 163,220 workers in April 2019, versus just 5 years ago, when industry employed 194,790 workers, a 16-percent reduction.

I look forward to the testimony from the International Association of Machinists and our other witnesses about the impact of PSR on the rail workforce.

Two other issues that we will hear about from SMART Transportation and BLET are a two-person crew requirement and cross-border trains. I am once again a supporter of the two-person crew bill, because it is imperative that our trains remain safe as the industry changes. Additionally, we must ensure that all trains operating in the U.S. have crews that are well-trained and can meet FRA's robust safety standards. This is an issue at our southern border.

We will also hear from the Amtrak police union over their concerns about Amtrak's plan to cut its police force by 20 percent. Amtrak police are on the front line of keeping our surface transportation system safe on a daily basis. In northeastern Illinois they protect the more than 6.5 million Metra and Amtrak passengers that use Chicago Union Station on an annual basis.

Finally, at the Railroad Tech Day in May, we got the chance to see the next generation of technologies that the industry hopes to incorporate into their operations, including joint inspection, virtual reality simulators, and fleet-wide predictive maintenance. While these technologies are exciting, I want to make sure that we keep in mind that technology will not replace the necessity for workers. Therefore, we must ensure that we continue to invest in our men and women in the rail industry. And expanding workforce development programs is one of my priorities as we head towards surface transportation reauthorization. I look forward today to hearing from our witnesses about how we can improve the state of the rail workforce, and the industry as a whole.

[Mr. Lipinski's prepared statement follows:]

Prepared Statement of Hon. Daniel Lipinski, a Representative in Congress from the State of Illinois, and Chair, Subcommittee on Railroads, Pipelines, and Hazardous Materials

Good morning. I want to welcome everyone to today's hearing of the Railroads, Pipelines, and Hazardous Materials Subcommittee where we will be looking at the state of the rail workforce. Railroads and the men and women who make them run are a key component of the American economy. According to the Association of American Railroads (AAR), in 2017, major U.S. railroads supported over 1.1 million jobs, $219.5 billion in annual economic activity, and $71.3 billion in wages, while creating nearly $26 billion in total tax revenues. In my home region of northeastern Illinois, six Class I railroads interact along with multiple short lines, while Metra and Amtrak run hundreds of trains over these same tracks. The confluence of all these railroads makes northeastern Illinois the rail hub of North America.

The more than 160,000 railroad workers in this country are the backbone of the industry and keep our world class rail system the powerful economic force that it is. In northeastern Illinois, thousands of workers get 1300 Metra, Amtrak, and freight trains to their destinations on a daily basis. There is no doubt that without the men and women who are on the frontlines, the industry would not be the success it is today. Historically, in return, the railroads have provided good-paying jobs with good benefits for their workers. It is important that this continues.

Today we will hear from a number of witnesses about the widespread changes that are taking place in the railroad industry and the impacts that these changes are having on the rail workforce. Two of the significant changes we have seen recently are longer trains and the adoption of precision scheduled railroading, or PSR. These changes in rail operations have raised concerns about working conditions and safety, as well as negative community impacts and the quality of service being provided.

Freight railroads are now running consistently longer trains, upwards of 10,000–15,000 feet. That equates to two or three mile long trains, or to put it another way, 33 football fields. However, the rail infrastructure has largely gone unchanged. This has led to operational challenges such as increased blocked crossings or idling on mainline tracks for extended periods of time. This causes problems for workers, and also for communities. These are issues that I have always seen in my district but are getting worse. One example is in the Chicago neighborhoods of Mt. Greenwood and Beverly. Now these types of issues are being seen in more districts across the country. I am pleased that the THUD appropriations bill has report language on blocked crossings that I asked to be included so we can work on solutions to these some of these issues, but solutions across the country will require significant infrastructure investment.

Another notable trend in the railroad industry is the adoption of PSR. All but one of the Class I railroads have adopted, or are in the process of adopting, PSR. At its essence, this is a fundamental shift in how railroads operate. The move in the industry toward PSR has been accompanied with significant job cuts in the past few years. Class I railroads and Amtrak employed 163,220 workers in April 2019, versus just five years ago when the industry employed 194,790 workers—a 16 percent reduction. I look forward to the testimony from the Machinists and our other witnesses about the impact of PSR on the rail workforce.

Two other issues that we will hear about from SMART Transportation and BLET are a two-person crew requirement and cross-border trains. I am once again a supporter of the two-person crew bill because it is imperative that our trains remain safe as the industry changes. Additionally, we must ensure that all trains operating in the U.S. have crews that are well trained and can meet FRA's robust safety standards. This is an issue at our southern border. We will also hear from the Amtrak police union over their concerns about Amtrak's plans to cut its police force by 20 percent. Amtrak police are on the front line of keeping our surface transportation system safe on a daily basis. In northeastern Illinois, they protect the more than 6.5 million Metra and Amtrak passengers that use Chicago Union Station on annual basis.

Finally, at the railroad tech day in May, we got the chance to see the next generation of technologies that the industry hopes to incorporate into their operations—including drone inspection, virtual reality simulators, and fleet-wide predictive maintenance. While these technologies are exciting, I want to make sure that we keep in mind that technology will not replace the necessity for workers. Therefore, we must ensure that we continue to invest in our men and women in the rail industry, and expanding workforce development programs is one of my priorities as we head toward surface transportation reauthorization.

I look forward today to hearing from our witnesses about how we can improve the state of the rail workforce and the industry as a whole. I now recognize the Subcommittee Ranking Member, Mr. Crawford, for an opening statement.

Investing in grade separations is also critical and I was pleased to help secure $150 million in the Illinois State Capital Bill for the 63rd and 65th and Harlem grade separation project.

Mr. LIPINSKI. I now recognize the subcommittee ranking member, Mr. Crawford, for his opening statement.

Mr. CRAWFORD. Thank you, Mr. Chairman. The freight rail industry employs over 3,300 Arkansans at Class I, regional, and short line railroads. These employees come from varied backgrounds, and nearly 20 percent of our nationwide freight rail employees are veterans. Farmers and businesses across my State depend on our Nation's freight rail transport to transport their goods throughout the country and the world.

Important to Arkansas are our short line railroads, which most often provide first- and last-mile service for farmers, manufacturers, and other industries. I am proud to support H.R. 510, the BRACE Act, which would permanently extend the tax credit for short line railroad track maintenance. As total freight demand continues to grow, the critical investments made by the railroads and their people and in their infrastructure ensure a safe and efficient system on which our goods will travel. This investment helps us spur economic activity and supports nonrail jobs.

Railroad innovation leads the way to new technology to make operations safer and more efficient. In turn, the rail network can handle increased freight demand, and help relieve congestion on our roads.

I look forward to hearing about the implementation of Positive Train Control, a key step to improving rail safety, and other technologies that can prevent potential incidents.

Thank you to all of our witnesses today for being here, and I yield back the balance of my time.

[Mr. Crawford's prepared statement follows:]

Prepared Statement of Hon. Eric A. "Rick" Crawford, a Representative in Congress from the State of Arkansas, and Ranking Member, Subcommittee on Railroads, Pipelines, and Hazardous Materials

The freight rail industry employs over 3,300 Arkansans at Class I, regional, and short line railroads. These employees come from varied backgrounds, and nearly 20 percent of nationwide freight rail employees are veterans.

Farmers and businesses across my state depend on our nation's freight railroads to safely transport their goods throughout the country and the world. Important to Arkansas are our short line railroads, who most often provide first and last mile service for farmers, manufacturers, and other industries. I am proud to support H.R. 510, the BRACE Act, which would permanently extend the tax credit for short line railroad track maintenance.

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I look forward to hearing about the implementation of Positive Train Control, a key step to improving rail safety, and other technologies that can prevent potential incidents.

Mr. ALLRED [presiding]. The Chair will now recognize the chairman of the full committee, Mr. DeFazio, for an opening statement.

Mr. DEFAZIO. I thank the gentleman for his recognition, and thank Chairman Lipinski for calling this hearing today.

You know, before he stepped down as executive chairman of BNSF, Matt Rose gave an interview with Railway Age, which I would recommend that anyone interested in the future of the industry read, and when he was asked about the value proposition of his railroad, Rose noted he looked at the value of the railroad as a three-legged stool: one leg being shareholders, because they provide the capital needed for reinvestment in the railroad; second, employees, which provide the services that allow us to make the return to provide to shareholders; and the third leg of the stool is customers.

Unfortunately, thanks to Hunter Harrison and his destructive actions at CSX, we seem to be entering into a new era of railroading, where railroads think only less is better, and the three-legged stool is now down to kind of a peg leg. And this is not long-term sustainable or supportable.

You know, I worry that the railroads are cementing in his legacy, squeezing out more and more profits for shareholders or the rapacious Wall Street hedge funds, at the expense of long-term investments back into the rail network. Across nearly all the Class I railroads we are seeing a reduction of capital and maintenance investments, labor costs, and service, all for the sake of reaching lower and lower operating ratios. He called it Precision Scheduled Railroading, but what are the consequences to hedge fund investors wringing out every possible dime from these railroads?

We will hold a next hearing, I believe, of this subcommittee with shippers to hear of their frustrations. It is not more precisely scheduled for them, it is costing them time and money. Just last month the STB held a hearing to examine Class I railroads' increased use of demurrage and accessorial charges to shippers. The hearing brought to light concerns that service has not improved for shippers with the implementation of PSR, but in fact they are often having to bear the financial burden of these operational changes to profit the people on Wall Street.

And then we look at the consequences for the workforce. Thousands of freight railroad workers have lost their jobs. In just 3 years CSX has cut its workforce from 26,000 down to less than 20,000. Since May 2018, UP has reduced its workforce by 3,000. These aren't just executive or administrative jobs. Their jobs are represented by some of the witnesses sitting before us in the next panel today: engineers; conductors; yard masters; signalmen—you know, signalmen at UP now are responsible for, instead of 20 miles of track, 60 miles of track, which, for many, is a physical impossibility—switch and bridge repair; maintenance workers; and car and locomotive maintenance workers, these are the jobs that help ensure a railroad can expand its service and continue to operate safely.

On the passenger side, Amtrak is cutting jobs, too, not because it is beholden to hedge fund investors, but because of this notion that someday it will have an operating profit. While I appreciate the attention to sound budgetary practices, eliminating the work-

force that provide services customers enjoy, and reducing the workforce that keeps riders safe, seems like a bad idea for the longevity of the national network.

Last month the members of this committee were informed Amtrak would be reducing the size of the police department, and I only learned about that by talking to an employee at Union Station when we were taking a special train to New York to look at the deteriorated rail system between here and there. They were going to be reduced. I asked management who was on the train with us, and they said, "Oh no, we are just moving assets around to use them more efficiently." Well, turned out not to be true. They are being reduced. Today we sent a letter signed by 52 other Members of Congress raising concerns.

Last year Amtrak police responded and filed reports on more than 18,500 incidents, and they made 2,000 arrests, representing increases over the prior 1-year period of 13 percent for incidents, 29 percent for arrests. And if you go online you can find a really spiffy video—very well done—by al-Qaida on how to derail a train. And so we are going to cut back on security. Great idea. I think that these cuts, both on the private-sector side and on the Amtrak side, are putting us on a very downward path.

I will be happy to hear from the witnesses today on what impacts these workforce reductions are having with that. I yield back the balance of my time.

[Mr. DeFazio's prepared statement follows:]

Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure

Thank you, Chairman Lipinski and Ranking Member Crawford, for calling today's hearing to examine the current state of the rail workforce.

Before he stepped down from his position as Executive Chairman of BNSF, Matt Rose gave an interview with Railway Age (Dec. 2018). When he was asked about the value proposition of his railroad, Rose noted that he looked at the value of the railroad "as a three-legged stool." One leg being shareholders—because they provide the capital needed for reinvestment in the railroad. The second leg of the stool is the employees, which "provide the services that allow us to make the return to provide to the shareholders". And the third leg of the stool is the customers.

Unfortunately, it looks like we are in a new era of railroading—a time where railroads think less is better. That three-legged stool is now just a pirate's, ahem, hedge fund's peg-leg.

I worry that the railroads are cementing railroad executive Hunter Harrison's legacy of squeezing out even more profits for shareholders, at the expense of long-term investments back into the rail network. Across nearly all of the Class I railroads we are seeing a reduction in capital and maintenance investments, labor costs, and service—all for the sake of reaching lower and lower operating ratios. Harrison termed it "Precision Scheduled Railroading." But what are the consequences to hedge fund investors wringing out every possible dime from these railroads?

Shippers continue to express frustration that these operational changes are not, in fact, creating a more "precisely scheduled" network, but instead cost them additional time and money. Just last month, the Surface Transportation Board held a hearing to examine Class I railroads' increased use of demurrage and accessorial charges to shippers. The hearing brought to light concerns that service has not improved for shippers with implementation of PSR, but in fact they are often having to bear the financial burden of these operational changes.

And then we look at the consequences for the workforce—thousands of freight railroad workers have lost their jobs. In just three years, CSX cut its workforce from over 26,000 employees down to less than 20,000. Since May 2018, Union Pacific Railroad has reduced its workforce by nearly 3,000 employees. These aren't just ex-

ecutive and administrative jobs, these are the jobs that are represented by some of the witnesses sitting in front of us today. Engineers; conductors; yardmasters; signal, switch, and bridge repair and maintenance workers; and car and locomotive maintenance workers. These are the jobs that help ensure a railroad can expand its service and continue to operate safely.

On the passenger side, Amtrak is cutting jobs, too. Not because it's beholden to hedge fund investors, but because of this notion that it will one day have an operating profit. While I appreciate the attention to sound budgetary practices, eliminating the workforce that provides services customers enjoy and reducing the workforce that keeps riders safe seems like a bad idea for the longevity of the national network. Last month, members of this Committee were informed that Amtrak would be reducing the size of the Amtrak Police Department workforce by 20 percent. In the last year, Amtrak Police responded and filed reports on more than 18,500 incidents and made nearly 2,000 arrests, representing increases over the prior one-year period of 13 percent for incidents and nearly 29 percent for arrests.

These cuts seem like a very risky slope, so I'm curious to hear from the witnesses today on what impacts they see these workforce reductions having on the rail network now and into the future. Thank you.

Mr. ALLRED. Thank you, Chairman DeFazio. I would now like to welcome the witness of our first panel, the Honorable Ronald L. Batory, the Administrator—Federal Railroad Administrator.

Thank you for being here today, and I look forward to your testimony.

Without objection, our witness' full statement will be included in the record.

Since your written testimony has been made a part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes. Go ahead.

TESTIMONY OF HON. RONALD L. BATORY, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION

Mr. BATORY. Good morning, everyone, Chairman Lipinski, Chairman DeFazio, Ranking Member Graves, as well as Ranking Member Crawford and members of the committee, thank you for the opportunity to testify today to discuss rail safety and the Federal Railroad Administration's role in ensuring the safety and efficiency of our Nation's rail system.

The mission of FRA is to enable the safe, reliable, and efficient movement of people and goods for a strong America now and into the future. With Secretary Elaine Chao's leadership, FRA executes its mission in many ways. FRA enforces critical safety regulations, and partners with industry to develop and promote both regulatory and nonregulatory solutions to safety issues. FRA also seeks to manage Federal investments in rail infrastructure in a cost-effective and efficient manner, and pursues research and development to advance innovative technologies and best practices in railroad operations and maintenance.

We have seen great advances in railroad safety; both the train accident rate and railroad employee injury rate have declined. Despite these advances, rail accidents and employee injuries do occur. FRA considers one accident or one employee injury one too many. As the demand for both freight and passenger rail transportation in the U.S. grows, FRA recognizes its responsibility to ensure rail operations are the safest they can be, not only for the traveling public and the communities through which the railroads operate, but also the highly skilled employees who work diligently on the rail system every day.

FRA addresses safety risks using a risk-based proactive approach, focusing resources on top safety issues, while continuing innovative research to further advancements in rail technology and investment in rail infrastructure. Last week the FRC announced the selection of $326 million in grant funds under the Consolidated Rail Infrastructure and Safety Improvements grant program, with significant investments directed towards grade crossing, tracks, signal and bridge improvements.

Today I would like to highlight the top safety initiatives FRA prioritizes: PTC, trespassing prevention, grade crossing safety, and FRA's Close Call Reporting System, commonly referred to as C3RS.

Railroads' successful implementation of PTC remains at the top of our agenda. As I have said before, implementation of PTC operations represents the most fundamental change in rail safety technology in the century. With approximately 20 months remaining until the statutory deadline, the Department and FRA will continue to provide extensive technical assistance and perform comprehensive oversight to both host, tenants, railroads, and hold each railroad accountable for the timely implementation of interoperable PTC systems on all lines subject to the statutory mandate.

Also at the top of the list for FRA's agenda is the prevention of trespassing incidents on railroad property, and increasing grade crossing safety. Trespassing on railroad property is the leading cause of all rail-related deaths in the United States. Grade crossing incidents are the second. Together, over the past 10 years, they have accounted for more than 95 percent of all rail-related fatalities.

One of my top objectives is to lead, promote, and strengthen efforts among the public, private, and Government stakeholders to increase awareness of grade crossing safety issues and trespasser prevention strategies. Preventing trespassing and improving grade crossing safety is critical, not only to save the lives of those involved, but also to help ensure railroad employees do not needlessly have to suffer the severe psychological and emotional consequences such incidents may cause.

C3RS is a voluntary FRA program enabling participating railroads and their employees to improve safety culture in their organizations, and to proactively identify and address safety issues before accidents occur. FRA first piloted this C3RS program in 2007 with the train, yard, and engine craft employees of four railroads. Since then the program has grown to 15 railroads, with over 23,000 employees, involving all the crafts. Going forward, FRA is prioritizing the expansion of the C3RS program, along with other industry partnerships designed to ensure a transparent sharing of information among stakeholders and enabling the effective identification, analysis, and mitigation, or elimination, of risk throughout the rail operating environment.

FRA has a responsibility to the public, to the railroad employees, and the railroads themselves to lead that industry to the next generation of safety improvements. FRA is committed to continuing to work with all stakeholders to achieve this new level of safety. This next generation of safety improvements will necessarily involve change.

One constant will remain, however, and that is FRA's commitment to working with all stakeholders to achieve this new level of safety. FRA recognizes the unique position of railroad employees to ensure safety, both now and in the future. FRA safety inspectors are on the ground throughout the United States. While they are responsible for conducting periodic inspections for compliance with FRA safety regulations and conducting accident investigations, they are also prime points of contact for railroad employees to share any concerns, suggestions, or ideas related to rail safety.

FRA has long-established processes and procedures in place to ensure the anonymity of any individual sharing safety concerns with the agency. I believe that clear and open communication committed to safety among all stakeholders is most important, including FRA, railroad employees, and railroad management.

Our Nation's rail industry has becomes safer and stronger than ever before. Thank you.

[Mr. Batory's prepared statement follows:]

Prepared Statement of Hon. Ronald L. Batory, Administrator, Federal Railroad Administration

Chairman Lipinski, Ranking Member Crawford. and Members of the Committee . . .

Thank you for the opportunity to testify today to discuss rail safety and the Federal Railroad Administration's (FRA) role in ensuring the safety and efficiency of our nation's rail system. The mission of FRA is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future. With Secretary Elaine L. Chao's leadership, FRA executes its mission in many ways. FRA enforces critical safety regulations and partners with industry to develop and promote both regulatory and non-regulatory solutions to safety issues. FRA also seeks to manage federal investments in rail infrastructure in a cost-effective and efficient manner, and pursues research and development to advance innovative technologies and best practices in railroad operations and maintenance. With a cadre of almost 400 railroad safety inspectors across the nation, FRA not only conducts traditional safety inspections and investigations, but FRA inspectors also forge strong collaborative relationships with railroad employees and seek opportunities to partner with those employees to ensure the safest rail working environment possible.

In recent years, we have seen great advances in railroad safety—both the train accident rate and the railroad employee injury rate have declined. Despite these advances, rail accidents and employee injuries do occur. FRA considers one rail accident or one employee injury one too many. As the demand for both freight and passenger rail transportation in the U.S. grows, FRA recognizes its responsibility to ensure rail operations are the safest they can be, not only for the traveling public and the communities through which railroads operate, but also for the highly skilled employees who work diligently on the rail system every day.

Safety is FRA's top priority. FRA believes safety and innovation go hand-in-hand. From implementation of Positive Train Control (PTC) technology, to proactively addressing safety risks through our voluntary close call reporting program, to initiatives addressing the persistent challenges of grade crossing safety and the prevention of trespassers on railroad property, FRA believes both people and technology play critical roles.

FRA addresses safety risks using a risk-based, proactive approach, focusing resources on the top safety issues while continuing innovative research to further advancements in rail technology and investing in rail infrastructure. Last week, FRA announced the selection of $326 million in grant funds under the Consolidated Rail Infrastructure and Safety Improvements grant program, with significant investments directed towards grade crossing, track, signal, and bridge improvements.

Today, I would like to highlight the top safety issues FRA is prioritizing—PTC, trespassing prevention, grade crossing safety, and FRA's Close Call Reporting Program (commonly referred to as C3RS).

POSITIVE TRAIN CONTROL

Railroads' successful implementation of PTC remains at the top of our agenda. As I've said before, implementation of PTC in rail operations represents the most fundamental change in rail safety technology in a century. PTC uses industry-designed emerging technologies to monitor speed and automatically stop trains to prevent specific human-error accidents. With the Secretary's leadership, we have prioritized grant programs for PTC and helped railroads make significant progress towards full PTC implementation on the required main lines. As of March 31, 2019, PTC systems were in operation on over 48,000 of the nearly 58,000 route miles subject to the statutory mandate—with the majority of implementation occurring in the last two years. All 41 railroads subject to the statutory mandate complied with the December 31, 2018, requirements prescribed under the PTC Enforcement and Implementation Act of 2015. Specifically, four host railroads fully implemented FRA-certified and interoperable PTC systems on their required mainlines by December 31, 2018, and the other 37 railroads sufficiently demonstrated they met, and in many cases exceeded, the six statutory criteria necessary to qualify for an alternative schedule and sequence to reach full implementation by December 31, 2020.

With approximately 20 months remaining until the statutory deadline, the Department and FRA will continue to provide extensive technical assistance and perform comprehensive oversight, to both host and tenant railroads, and hold each railroad accountable for the timely implementation of an interoperable PTC system on all lines subject to the statutory mandate. Following the series of PTC symposia held throughout 2018, FRA has already held two of six collaboration sessions planned in 2019–2020. These sessions bring together stakeholders to share best practices and jointly address key challenges. FRA PTC field staff continue to prioritize technical assistance based on each of the 37 host railroads' risks to full implementation, with a specific focus on testing, revenue service demonstration and interoperability. In support of our FRA PTC field staff, and to support railroads interoperability challenges, this summer FRA plans to meet with each of the 101 Class II and III tenant railroads required to implement PTC by their host railroad to offer technical assistance with respect to PTC system implementation.

TRESPASSING PREVENTION AND GRADE CROSSING

Also at the top of FRA's agenda is the prevention of trespassing incidents on railroad property and increasing grade crossing safety. Trespassing on railroad property is the leading cause of all rail-related deaths in the United States. Grade crossing incidents are the second. Together, over the past 10 years, they have accounted for more than 95% of all rail-related fatalities. One of my top objectives this year is to lead, promote, and strengthen efforts among all public, private, and government stakeholders to increase awareness of grade crossing safety issues and trespasser prevention strategies. Preventing trespassing and improving grade crossing safety is critical not only to save the lives of those involved, but also to help ensure railroad employees do not needlessly have to suffer the severe psychological and emotional consequences such incidents may cause.

Trespassing Prevention

Last year, at Congress's direction, FRA developed a national strategy to prevent trespassing incidents. FRA's strategy recognizes that trespassing is a complex problem and solutions will necessarily differ based on localized circumstances. FRA identified the top 10 U.S. counties with the most railroad trespasser casualties in recent years.

FRA's strategy focuses on four strategic areas: (1) data gathering and analysis; (2) community site visits; (3) funding; and (4) partnerships with affected stakeholders. Success of our national strategy, however, depends on meaningful input and participation by all stakeholders—including State and local governments, railroads, labor organizations, and the public—as well as the availability of funding.

FRA intends to hold trespasser prevention summits in each of the top 10 counties identified. The summits will include local community leaders, law enforcement, the railroads operating in and through the county, the public, and FRA, with the goal of identifying trespassing hotspots within the community, developing local improvement recommendations for trespass mitigation and fatality prevention, assisting with trespasser prevention outreach campaigns, and ensuring all stakeholders are equipped with the necessary information on the availability and process for applying for various forms of FRA grants and other funding.

Improving Grade Crossing Safety

Highway-rail grade crossing incidents are the second leading cause of rail-related deaths, accounting for approximately 30 percent of all rail-related fatalities and are the top cause of all railroad accidents. Increasing grade crossing safety will not only reduce the number of fatalities, but it will also improve the safety and efficiency of the rail transportation network. FRA expects the risk of highway-rail grade crossing incidents to grow as both train and highway traffic increases during the next decade.

In October of last year, the Department hosted the first Highway-Rail Grade Crossing Safety and Trespass Prevention Summit. The event brought together safety advocates, railroads, labor organizations, law enforcement, and both Canadian and U.S. transportation officials to exchange ideas and begin developing best practices on implementing a coordinated national response to the growing problem of trespassing incidents on railroad property and to increase grade crossing safety. At the conclusion of the Summit, FRA committed to hosting a series of listening sessions to identify technology to improve the functioning of grade crossing warning systems and safety, as well as barriers to implementation.

This past spring, FRA hosted those listening sessions. We brought together railroads, labor organizations, signal equipment manufacturers, trade and advocacy groups, technology companies, and representatives from federal, state, and local governments to discuss ways of improving grade crossing safety through technology. Participants discussed demonstrated and emerging technologies that could be used to improve grade crossing safety and ideas for needed regulatory changes to help field new grade crossing technology. Ideas included both highly complex technological improvements and lower tech improvements. FRA is using all the information and ideas gathered through this symposium to develop a three-year plan to improve grade crossing safety. We will hold a follow-up symposium this fall to continue the dialogue with all stakeholders. We will continue to collaborate with our modal partners including the Federal Highway Administration, Federal Motor Carrier Safety Administration, and National Highway Traffic Safety Administration, to provide ongoing assistance to all stakeholders, and develop and promote new tools and resources to support grade crossing safety.

CONFIDENTIAL CLOSE CALL REPORTING SYSTEM (C3RS)

C3RS is a voluntary FRA program enabling participating railroads' and their employees to improve the safety culture of their organizations and to proactively identify and address safety issues before accidents occur. For properly reported and qualifying close calls, employees are protected from company discipline, and both employees and railroads are protected from FRA enforcement. Root cause analysis is conducted on individual close call events, and collectively, safety hazards are identified. Railroads are then empowered to develop solutions to proactively mitigate or eliminate the identified hazards, thus avoiding the costs and often devastating consequences of an accident or incident.

FRA first piloted the C3RS program in 2007 with the train, yard, and engine craft employees of 4 railroads. Since then, the program has grown to 15 railroads with over 23,000 employees involved from all crafts.

On participating railroads, several tangible safety improvements have resulted from the C3RS program thus far. Most notably, derailments caused by human factors are down 41 percent and derailments caused by run-through switches are down 50 percent. The program has also led to more qualitative benefits such as improved collaboration between labor and management on safety improvements, and in several instances, the discovery of multiple factors playing a role in a single event, leading to more systemic corrective actions. This level of collaboration and data analysis is often stifled in the traditional environment of railroad discipline.

FRA is actively working to increase railroad and employee participation in the program and to identify alternative funding sources for the program. Specifically, FRA is evaluating ways to allow industry to provide funding for the program and how to potentially leverage machine learning technology to effectively automate the processing of close call reports in the future.

Going forward, FRA is prioritizing the expansion of the C3RS program, along with other industry partnerships designed to ensure a transparent sharing of information among all stakeholders and enabling the effective identification, analysis, and mitigation or elimination of risks throughout the rail operating environment.

CONCLUSION

FRA has a responsibility to the public, to railroad employees, and to railroads themselves to lead industry to the next generation of safety improvements. FRA is

committed to continuing to work with all stakeholders to achieve this new level of safety. This next generation of safety improvements will necessarily involve change. One constant that will remain, however, is FRA's commitment to working with all stakeholders to achieve this new level of safety. FRA recognizes the unique position of railroad employees in ensuring safety both now and in the future. FRA safety inspectors are "on the ground" throughout the United States. While they are responsible for conducting periodic inspections for compliance with FRA's safety regulations and conducting accident investigations, they are also prime points of contact for railroad employees to share any concerns, suggestions, or ideas related to railroad safety. FRA has long-established processes and procedures in place to ensure the anonymity of any individual sharing safety concerns with the agency.

I believe that with clear and open communication and a commitment to safety among all stakeholders—including FRA, railroad employees, and railroad management—our nation's rail industry can become safer and stronger than ever before.

Mr. ALLRED. Thank you again for your testimony today. We will now move on to Member questions. Each Member will be recognized for 5 minutes and I will begin with Chairman DeFazio.

Mr. DEFAZIO. I thank you, Mr. Chairman.

To the Administrator, I mean, how long can trains be? I have trains now running up the Willamette Valley that are 15,000 feet long going through city centers. How long are we going to allow people to block emergency vehicles? These are mostly at-grade crossings. I mean, is there any limit to how long they can make these trains?

Mr. BATORY. There is no limit, as far as what you can make a train regulatory. There is no limit that I am aware of in timetables of railroads. However, railroads are very cognizant of what the physical plant will accommodate, and what will be accommodated safely in its transversing of the route between points A and B.

Mr. DEFAZIO. Right, but what about, you know, the rest of the country, the people who live in these cities, who need to get back and forth across a track? Emergency vehicles are blocked, there is a hospital on the other side.

I mean don't you think there should be a practical limit on the length of trains that both serves the railroads for efficiency, but not their optimal PSR, or whatever you want to call it—efficiency—but also is cognizant of the burdens placed on the rest of the people of the United States of America?

Mr. BATORY. Chairman DeFazio, ordinarily it is not unusual to see trains operate with——

Mr. DEFAZIO. 15,000 feet long? I haven't heard of that before recently.

Mr. BATORY. You will see trains ordinarily in the range of 7,000 to 11,000 feet.

Mr. DEFAZIO. Right.

Mr. BATORY. There are—have been exceptions where there are trains that have now grown to 15,000, 16,000 feet.

The interesting part of it is, yes, the linear length of the train is more, without a doubt. But the number of freight cars in that train have only increased by 10 cars in the last 45 years.

Mr. DEFAZIO. Yes?

Mr. BATORY. So the integrity of that train, as far as mechanical reliability——

Mr. DEFAZIO. Right, but that is not the question.

Mr. BATORY [continuing]. Is nothing.

Mr. DEFAZIO. That is not the question I raised.

Mr. BATORY. Well, as far as——

Mr. DEFAZIO. The question I raised is the impacts on society of what they are doing——

Mr. BATORY. Well——

Mr. DEFAZIO [continuing]. Let alone the issues that are being raised by shippers and everybody else. I remember when Frank Lorenzo ran Eastern Airlines. We finally drove him out of the business because of what he was doing. But we are seeing the same thing here started by a guy who is now deceased that is infecting the railroads, and making them subject to these inordinate pressures from Wall Street.

And isn't there a point at which you are going to be concerned about safety by the reduction of the number of employees, and about the inconvenience for the rest of the United States of America? Because these companies are driving these trains as long as they can, with as few people as they can. I mean you don't have any concerns about this? You think this is all just hunky dory?

Mr. BATORY. I have had sincere commitment to safety since the day I was employed in the railroad industries in 1971, right up until the day I retired, and I still carry that commitment to safety.

Mr. DEFAZIO. Great. And you believe all these reductions in workforce are warranted, and not jeopardizing safety in any manner?

Mr. BATORY. Train length——

Mr. DEFAZIO. No, we are not talking about length any more. I am now talking about the number of employees who have been dismissed, laid off, so they can increase their bottom line.

Mr. BATORY. Well, we certainly have incurred changes, no doubt about it. When I hired on in 1971, we had around 700,000 employees. We are now down to about 150,000.

Mr. DEFAZIO. OK, so you are basically going to say this is all just fine, and we are being driven by Wall Street, and you are happy with that.

Mr. BATORY. No, I am not happy.

Mr. DEFAZIO. OK.

Mr. BATORY. I am trying to share with you the facts.

Mr. DEFAZIO. Well, the fact is I am going on what Matt Rose said and the concerns he raised, because I thought that he was doing a great job and BNSF isn't doing these things. BNSF is serving their shippers better because they aren't being driven by jackals on Wall Street, because they were bought by a responsible long-term investment firm.

Mr. BATORY. And, for what it is worth, Matt and I share similar opinions.

Mr. DEFAZIO. OK. Well, then you should have some concerns about this PSR stuff.

Anyway, thank you Mr. Chairman.

Mr. ALLRED. Thank you, Mr. DeFazio. I now recognize Ranking Member Crawford.

Mr. CRAWFORD. Thank you, Mr. Chairman.

Let me get my question for you here. Thank you for being here, I appreciate that.

How are you ensuring that all railroads meet the PTC deadline? Do you have any concerns that any of the railroads might not meet the deadline?

Mr. BATORY. I carry a concern about PTC every day that I have been in this position, as well as when I was an adviser to Secretary Chao.

We have come a long way in the past 15 months, insofar as organizing the PTC initiative, as guided and facilitated by the FRA.

Very quickly, we first met with all the host railroads face to face. That was during first quarter of last year. Then we held three sessions of summit sessions to prepare everybody for what they need to fulfill the prerequisites for PTC for 12/31/19—or 18. Then, this year, we have held—or we will be holding a total of three collaboration sessions to help facilitate more maturity insofar as the regulatory and statutory adherence that the railroad industry has to comply with by the end of 2020.

What is concerning is something that I knew when I took this position—is that the freight sector, for the most part, was very mature in developing itself. They are now, if you will, entering their chapter of interoperability.

The primary concern was the commuter railroads and Amtrak. Amtrak has developed a lot, and so have the commuter railroads. But when you have a freight sector that represents—nearly 90 percent of their to-be compliant PTC route mileage is now complete, and you have a commuter sector that only has 30-plus percent of its network complete, and they have to do interoperability while completing the other 70 percent with only 15 months left. I have a concern.

So, as a result, with interoperability, we are currently meeting with a total of 76 railroads: 41 of them are independent short lines and regionals, the ones that—the others are associated with conglomerates—trying to figure out where they are at with PTC, both economically as well as physically. Then we are going into the commuter railroads, which we have been with independently, but we are bringing them together, especially the Northeast Corridor. In this case, with the Northeast Corridor, we have seven commuter railroads hosted by Amtrak, and they are all at different levels of maturity, as far as getting their own lines equipped with PTC. But the interoperability piece is paramount, because of their great presence on Amtrak.

So July 12th of next month I have asked the corner offices from Amtrak and all the commuter agencies—not with their technicians—to come to Washington. Amtrak and FRA are going to put on two presentations as far as where we understand the industry is on the Northeast Corridor. Let them go back, talk to their staffs. And if they feel they are going to fail, the message that I have already given some of them, they need to go see their two Senators and their respective congresspersons now—not later, now—and tell them that they think they are at risk of failing. Because none of you like surprises, I don't think, and I don't like surprises, either.

So I would rather flush this out earlier than later. And while all this is going on, we are still working with the Class I community, and making sure that they can get their interoperability behind them, because the federation that is required by the suppliers so

that you can get very robust interoperability pairing going on is still being developed.

And we have multiple issues I naturally can't share during this hearing, because time doesn't allow, but my hands are on this, my eyes are on it, I think about all the time, I am on the phone all the time. I spend probably 25 to 40 percent of my time on PTC. I am committed.

Mr. CRAWFORD. Thank you, I appreciate that. I yield back, Mr. Chairman.

Mr. LIPINSKI [presiding]. I would now yield myself 5 minutes. I, unfortunately, had to offer an amendment at another committee, so I missed Chairman DeFazio, but I got a briefing on—very quickly—about what he had raised. So I just want to continue, Mr. Batory.

Do you think there are safety implications with respect to the implementation of PSR?

Mr. BATORY. Let me share this with you, because I meet with the regional leadership throughout the United States, as well as the individual inspectors that are assigned to those regions.

One of the things that I have said to them and I will say to you: Do not get distracted by PSR. Our PSR is our CFR. This is what we do good. And the railroads are obligated to make sure that they comply with everything that is in this book. Things that are not in this book gives them the liberty to operate and maintain a railroad of their choosing, which is nothing new. Now, if you would like to—and Chairman DeFazio didn't have a chance to allow me to give you my opinion about PSR—I am more than willing to give it to you.

Mr. LIPINSKI. Go right ahead. Go ahead and start.

Mr. BATORY. All right. First of all, the words are magnetic. It is a railroad, it schedules, it is precision. It attracts people. It is also a sound bite. I knew the author, I worked with him very closely in the late 1980s and throughout the late 1990s.

Mr. LIPINSKI. All right, but I want to hear specifically. What is happening?

Mr. BATORY. Here is what—here is—all PSR is is "Railroading 101." It is lessons learned put in a book with a fancy cover on it that says Precision Scheduled Railroading.

Here is the issue with it. When you have something of that nature, and it depends on the property in which you are leading, you can go in there and address that railroad with an ax and a saw, and you are going to have collateral damage. And with that collateral damage will be some draconian actions. Or, you can also apply everything that is in that book very methodically, deliberately, and you will get sustainability out of it.

Mr. LIPINSKI. Well, my concern is, first of all, we know that there has been a 16-percent cut in workers. What you need to be doing is making sure that the safety is still there, and I understand that. And so that is the question. Are there any safety concerns with this?

Mr. BATORY. Yes——

Mr. LIPINSKI. You know, maybe there is not, but that is one of the things that you need to be looking at, and considering, is making sure that we maintain a safe working situation for the workers and for the communities with the railroads.

Mr. BATORY. Thank you, Chairman, and I realize that. And with that, at least since I have been in this position, physical year 2017 versus 2018, the inspection reports among the FRA inspectors are up; observations are up; inspection days are up; the number of defect violations and associated fines are down. So that tells me, by looking at this—and the inspectors, they are using this [indicating Code of Federal Regulations] to do their job every day—that the men and the women that lead, maintain, and operate America's railroads are doing what they are supposed to do.

I do not follow employment levels. But in preparation for this, I do understand that the train and engine men employment count is up 3 percent over last year.

Mr. LIPINSKI. All right, in regard to data collection for block crossings, will you commit to improve the FRA's data collection on this?

Mr. BATORY. Yes.

Mr. LIPINSKI. It sounded like you hesitated there.

Mr. BATORY. Well, as you know, we had a discussion in your office. And I am—have—one-third of my railroad career was in the Chicago area. So I am very familiar with what you are faced and some of your colleagues are faced throughout the United States. I struggled with it, at first, after I left your office, and I asked our staff. I said, "Tell me what you have in the way of factual data."

So they put together 2 years of data—now, visualize this—with 130,000 road crossings, nearly 200 million registered vehicles. We only came up with less than 900 complaints. Now, I am not saying the complaints aren't out there, but that is what little data we had. Your phone rings off the hook. You get letters.

Mr. LIPINSKI. See, I have had 900 complaints in my office.

Mr. BATORY. Exactly. So that is when——

Mr. LIPINSKI. In a year, easily.

Mr. BATORY. So that is when I sat in a staff meeting with our folks one Tuesday morning, and I said, "What would happen if we created two portals in our website, and if it is approved we have to disseminate it and make everybody aware of it. One for the general public and one for law enforcement." But we have got to get some factual data concerning this subject matter.

So, as a result, we filed with the Federal Register in the spirit of the Paper Reduction Act, trying to seek approval to create these two portals. I am encouraged by it. It needs to be done. They tell me it might be a Christmas present this year. OK, when we get the authority to do it. But that is the first step.

And prior to doing that I also took the time to write a lengthy letter to all the CEOs of conglomerates of short lines and regionals and all the Class I's, telling them that they have to heighten their awareness on this subject matter. And this is nothing new to any of them. But keep in mind, if no one reports it insofar as the railroad, you don't know what you have going on.

The only thing an engineer and conductor has any more is a telemetry device on a train that tells him how long that train is, linear feet-wise. And, based on their knowledge of line characteristics, they are supposed to know if they are blocking some road crossings.

And then the other part of it is we find ourselves with this increase in registered vehicles over the last 25 to 30 years——

Mr. LIPINSKI. OK, I am almost 2 minutes over, so I am going to——

Mr. BATORY. OK.

Mr. LIPINSKI. We could come back this, but I am going to cut myself off. So I will now recognize Mr. Perry for 5 minutes.

Mr. PERRY. Thanks, Mr. Chairman. I actually want to continue the conversation, because I too have a question about the growing concerns of blocked grade crossings. And in keeping with the spirit of the conversation that is already kind of occurring here, what should be—Mr. Administrator, what should be the FRA's role in tracking the duration of closings, how they are reported, who reports them, and—other than the portal, which I think is probably a step in the right direction, what other things do you envision doing in this regard?

Mr. BATORY. At this juncture it all resides at the State and municipal level. There is nothing in the existing CFR that gives the FRA the ability to get involved with the duration of a crossing being blocked by a train.

Mr. PERRY. So the question is, should there be?

Mr. BATORY. I am not sure a silver bullet is the answer.

Mr. PERRY. I am not sure, either. I am just asking. I mean do people——

Mr. BATORY. So in that—in—I am not a big believer in silver bullets that correct it for everything across the country. I would say no.

Mr. PERRY. OK. I know that citizens in the Commonwealth that I represent—I am privileged to represent a portion of—and I suspect across the country become frustrated with the—and I can actually speak from personal experience on this—the lack of response on occasion from the railroad about this issue.

And I am just wondering if there is another methodology that should be considered that maybe doesn't change it completely and upend it 180 degrees, but offer some collaborative input from folks other than the folks operating the rail line itself. And maybe it is the administration, maybe it is a location for residents and citizens, and so on and so forth, and folks to track the duration of it.

And it is not only just crossings where the train might be sitting, but some at-grade crossings are closed for an inordinate amount of time for repairs, and what have you. And I was wondering. Do you track those for duration, as well, the ones that are closed for maintenance and/or other reasons?

Mr. BATORY. Insofar as tracking crossings that are closed for maintenance, no. The Federal Government doesn't get involved in that. That is between the railroad, the local municipality, the State, or sometimes the county. They, naturally, have to reach out to the local municipalities—State or county—to get permission to close the crossing, OK, for repairs. But the Federal Government does not get involved in that. And it works very well.

Mr. PERRY. And I am not saying that they should get involved in the permitting and the requests, and so on and so forth. But do you have any ideas, or do you know what the average time is, or do you keep—is there any statistics that are rolled up at the end of the year that kind of track that, so that people know what the time and duration of at-grade crossings being closed are?

Mr. BATORY. No, because each one is unique unto itself, based on the number of tracks and the number of lanes of traffic. So my experience has been you can have a crossing closed for perhaps 48 hours, you might have it closed for 2 weeks because it is in the middle of an intersection and involves eight lanes of traffic and two tracks, or maybe three. So it depends on the uniqueness of the location.

Mr. PERRY. All right, Mr. Administrator, with the remaining time that I have I do want to talk to you a little bit about Positive Train Control and the mandate regarding workers, employees ensuring they have the knowledge and skills to perform the related tasks in regard to PTC.

And it seems to me, from what I am reading here—and I just—maybe I am—maybe this is incorrect information, but we have a fair amount—it looks like one Class I and nine commuter railroads have not fully trained their employees on PTC, and one commuter railroad's progress was unavailable. By comparison, in 2018, the first-quarter data indicated that 5 Class I's and 23 commuter railroads had not completed their training, including 17 commuter railroads that only trained 50 percent or less of their workforce.

Are you monitoring this, and do you have an update to any of that that will allay any of our concerns that this is still yet not ready for prime time, as far as training for the employees is concerned?

Mr. BATORY. Well, with this developing technology, training never stops. We are continually seeing updates insofar as training is concerned. And that particular report that we ask the railroads to submit every quarter, where it talks about training, it was not in the spirit to say, "OK, I have X number of people, and by this date they are 100 percent trained, and I can walk away and forget about it."

It was how many people do you have trained, based on the maturity of the system on your property at that time, and we feel very comfortable with the level of training, and with developing technology—a lot of your training is incurred on the job, because we are finding things that you wouldn't find in an operators or a maintenance manual, because this system is being put in, and then, once it is put in and turned on, then we find issues that we have to address and then retrain people.

Mr. PERRY. So I am going over time here. I just want to clarify. So it seems to me that it is continuation training, as well, and the information that I have doesn't break out the difference between initial training and then continuation training so that employees may have had the initial training, but it doesn't enumerate the ongoing training, based on the changes in the technology, or the implementation of the rollout, et cetera. Is that a fair understanding?

Mr. BATORY. That is correct.

Mr. PERRY. Good, all right.

Mr. BATORY. And training is never going to end when it comes to——

Mr. PERRY. I understand and I concur. All right. Thank you, Mr. Chairman, I yield.

Mr. LIPINSKI. I now recognize Mr. Carson for 5 minutes.

Mr. CARSON. Thank you, Chairman. I believe it is important to meet and improve our Federal efforts to support diversity in personnel and in Federal contracting work.

Mr. Chairman, I would like to share a statement on the record from COMTO, the Conference of Minority Transportation Officials, and I would also like to hear from the Administrator about their efforts in this regard and get a brief update from you this morning. And we would appreciate a fuller response in writing.

Secondly, on May 23rd, the FRA withdrew a Notice of Proposed Rulemaking published back in March 2016 that would have mandated that all covered trains, both passenger and freight, operate with at least two crewmembers. In the 2016 NPRM, FRA states that the agency has studies showing the benefits of a second crewmember, and other information detailing the potential safety benefits of multiperson crews. In addition, qualitative studies show that the one-person train operators pose increased risks by potentially overloading the sole crewmember with tasks, and the PTC does not substitute for all the tasks performed by properly trained conductors.

How have the findings from these studies changed since FRA issued the NPRM?

Mr. BATORY. Well, as far as the number of crewmembers on a train making it safe—and when we start getting down into the numbers of—whether you want to say it is three people, two people, one person, there are no facts that exist out there to substantiate oversight. So if you are going to give oversight to nothing, you still have nothing.

Now, one thing I will share with you that will probably be enlightening to many people in this room—and it wasn't done in the spirit of this hearing today—I was interested in learning about what transpired during my career with collisions in this railroad industry. And I will stay with the more dramatic ones, the head-on collisions where two trains collide.

And in 1978 we had a minimum of five people on a crew. Some States we had six and seven people on a crew. And in 1978 we had—and this is alarming, I am not too sure we could survive it today with the transparency and the media that we have—408 head-on collisions in 1978. Today through 2018 it is still too many—this is regardless of speed—22. Now, that is with the head-ons and the rear ends. The head-ons were 65. In 2008 we had one, a 99-percent decrease.

I keep going back. Let's use facts. We can sit here and make up all kinds of hypothetical examples about the safety of a train, the onboard crewmembers, and come up with all kinds of anecdotal opinions, but we need facts. In the railroad industry, rail management and rail labor has done an exceptionally good job—and it was during my career that they used the Railway Labor Act to get where they are today. Why throw that out? And Congress gave them that tool to use. That is where it belongs.

Mr. CARSON. Thank you, Chairman, I yield back.

Mr. LIPINSKI. I now recognize Mr. Balderson for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman. Thank you, Administrator, for being here today. I appreciate the work that you and the

FRA are doing to promote—we will stay on the railroad safety piece—throughout Ohio, where I represent, and the Nation.

In your testimony, though, you mentioned that 95 percent of all rail-related fatalities are related to railroad property trespassing and grade crossing incidents. I want to touch a little bit on the findings from the FRA's national strategy to prevent trespassing incidents, and see if we are able to identify why people are trespassing onto railroad properties in the first place.

And my followup to that would be do these reasons change from region to region?

Mr. BATORY. The trespassing situation, I think you are aware of, we have come out with a report recently. It is very alarming. I didn't even realize it until I got here in Washington, the severity of it, because all I saw was what I saw in my prior life of employment on a railroad.

And yes, did we have trespasser incidences, and were some of them suicides? Yes, they were sad, and everything that you have to go through associated with that. But when you see it from a national perspective, and every week, you ask yourself what is going on here?

And how much of it is suicide, how much is—we have identified the hotspots in the United States. The commuter agencies, I think, have done an outstanding job, as have the freight railroads, but especially the commuter agencies, insofar as heightening the awareness of looking out for trespassers. And if you think you have somebody endangered that perhaps might be suicidal, do something and act to try to preclude it from happening.

But I was reporting it to the Secretary. I started doing it right after I got here in Washington because it jumped out at me, and I would show her every Tuesday how many grade crossing accidents we had in this country, and then how many trespassers. And even though grade crossing accidents would fluctuate—but they were sawtooth, but they were low—the trespasser just keeps growing and growing and growing.

And we have a problem, and an issue we have to address in this society. And you naturally have people, unfortunately, that are not paying attention. OK, they are using railroad right-of-way as their leisure trail. They have their earbuds in. There is just a whole host of issues that we find in these things. And it is so sad to see it happen, because when you report to somebody and you say, all right, we had 25 or 30 trespasser and crossing instances this past week, and 20 of them—15 to 20 were trespassers—and, just for talking purposes, from my recollection 15 to 18 of them died. You ask yourself why.

And then think about this. Add up those numbers in the 20s and 30s. Multiply it times, you know, 52 weeks, and then divide it by the number of seats in an airplane and think of the notoriety and the action that we would give if we had two or three planes crash in this country. That is what we got going on with trespassers.

Mr. BALDERSON. Thank you very much. I yield back my remaining time, Mr. Chairman.

Mr. LIPINSKI. I yield 5 minutes to Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you, Mr. Chair. Mr. Administrator, I represent the San Gabriel Valley in California, and we have 80 to

100 trains going through that district—the Alameda Corridor East. And we have problems with everything you have said: people crossing where they shouldn't be, and et cetera.

They cost congestion, safety, idling cars waiting to cross, causing pollution. But I am concerned that trains—and the argument Mr. DeFazio—they are becoming too long. There was a train back some years ago that went to my area that was a mile and a half long. And I understand that only Long Beach, L.A., and Texas can handle that long a train for taking care of unloading, et cetera.

I called the California Highway Patrol, the CPUC, everybody, and they bird-dogged it all the way in. But if something were to happen, there had been one person on there, anything happened on those rails, it would have taken the one person half an hour to go to the end of the train. That doesn't sound very reasonable.

What are we doing to improve the grade crossing safety and invest in grade crossing separations by asking the railroads to contribute more to make more rail crossings available that will help the communities that I serve, such as quad gates and other such things.

Then another thing I have—the Positive Train Control, which I championed a few years ago, they already have an extension. So how many are still not complying?

And then the other question that—you say the highway-rail cross—FRA Grade Crossing Safety Summit was hosted, and I would like to know who was invited.

Mr. BATORY. OK, that is—in regards to your last question, we had the summit on grade crossing and trespassers on October 30th of last year. We invited a cross-section of people that FRA——

Mrs. NAPOLITANO. No, but I would like to know who, because then I can find out if they have participated and were able to learn from it.

Mr. BATORY. Then I will report to your office later——

Mrs. NAPOLITANO. Please.

Mr. BATORY [continuing]. With that.

Mrs. NAPOLITANO. Please, I would appreciate it.

Mr. BATORY. OK.

Mrs. NAPOLITANO. Positive Train Control?

Mr. BATORY. Positive Train Control in your particular area, with Metrolink, they have done an exceptionally good job.

Mrs. NAPOLITANO. I know.

Mr. BATORY. And so—and the interoperability is maturing with the freight railroads and Metrolink.

As far as these extensions, that is what is in the statute. As long as those railroads fulfill their prerequisites——

Mrs. NAPOLITANO. What are they?

Mr. BATORY [continuing]. On 12/31/18 they were given, then, 2 more years to do implementation. That is in the statute. So, you know, a lot of people think that FRA just sat there giving out extensions. We couldn't give out extensions if they didn't——

Mrs. NAPOLITANO. No, we gave an extension.

Mr. BATORY. Yes, you did.

Mrs. NAPOLITANO. Congress did.

Mr. BATORY. Yes, Congress did.

Mrs. NAPOLITANO. And that expires, I think, last year.

Mr. BATORY. Yes, we had—everybody has to have their PTC up and running on 1/1/2021, basically a year and a half from now.

Mrs. NAPOLITANO. Well, is there any way of being able to get the railroads to contribute more to the rail grade separations that benefit them, but also the motoring public?

Mr. BATORY. I think there are two avenues. One is naturally working with the railroads, which I think they would be proponents of grade separations, OK, to minimize grade crossings.

Mrs. NAPOLITANO. No, they are proponents of the grade crossings, but not on——

Mr. BATORY. The highway fund, section 130 money, that the United States Government has, if you will, distributed over $4.5 billion to the States since the 1970s, when it was created——

Mrs. NAPOLITANO. I know that, sir.

Mr. BATORY. That——

Mrs. NAPOLITANO. I am very well aware of that.

Mr. BATORY. That is one that really needs to be addressed to make sure that we are putting money, if you will, in a smart——

Mrs. NAPOLITANO. The railroads benefit from it, more than anybody else, and yet it is only 10 percent to 3 percent—and sometimes nothing—towards those separations, and I think that is criminal. What about improving grade crossing safety?

Mr. BATORY. That is an ongoing program. It never stops. Training never stops. Awareness never stops. OK, we have staff out there at all the regions, then we have the brand, the well-known brand, of Operation Lifesaver. We have the community collaboration, we have the railroad collaboration. It is endless.

And we have made considerable inroads. The total number of trained motor vehicle accidents since 1990 are down 72 percent.

Mrs. NAPOLITANO. Well, yes, sir, I know that. My time is up.

Thank you, Mr. Chair.

Mr. LIPINSKI. The Chair now recognizes Mr. LaMalfa for 5 minutes.

Mr. LAMALFA. All right. Thank you, Mr. Chairman. Thank you, Administrator Batory, for being here. Let's talk a little bit more about automation in rail, automated technology. When we are looking into wider spread use in Canada of automated tech for inspecting trains, and then carry that over into what is called a closed loop, closed freight loops, and then, my understanding, there is a coal loop program, a pilot program in Nebraska and Wyoming, and that is being authorized. And also, FRA has a small—it is using this automated technology.

Could you expound upon all that, and how useful that is, how practical it is, what they are doing in Canada, and what—is there any impediments by law, or what have you, in the U.S. on that?

Mr. BATORY. Well, first, I can't speak in this hearing knowledgeably about what they are doing in Canada. OK? But we can certainly get back to your office on that.

As far as technology here in the United States, I am of the belief that it is in the best interests of our country and the people that the railroads serve that we exploit technology to its fullest.

With that, I have advocated both with management, railway supply—and I am sharing it with rail labor—that we need to unleash technology, exploit it, learn from it, not in the spirit of having a

foot race with ourselves to see how fast we can write a reg, but learn, develop the facts. And we have—and I will use track as an example. We have an excellent platform of prescriptive rulemaking for track geometry. The railroad industry never even had that until the early 1970s. I grew up with it, and it is excellent.

But it has taken us a long ways, as far as where we are today. When you start using autonomous track inspection you can find more track geometry defects and weaknesses than you and I can find looking through the windshield of a hi-rail vehicle. So, as a result, what would you rather have, yours and my 10 observations, or have what an autonomous tracking inspection vehicle brings to the table in the way of, maybe, 100 weaknesses and defects combined. It still takes people to go out there and inspect it, confirm it, and fix it. But we will end up with a stronger railroad.

The same holds true with the signal side, insofar as these bungalows that—we call them bungalows—that you see at a crossing protection. And they are smart, they are introverts unto themselves. Some of them do communicate on a limited basis to other bungalows or to the headquarters of the railroad. But visualize if we had the ability to have self-diagnostic, 24-hour, 365 reliability of these crossing bungalows or signal bungalows. It would be ideal. We would understand where our risk is. We would eliminate failure.

Right now, what the reg specifies—we send people out there every 30 days to make an inspection.

Mr. LAMALFA. Instead of having technology that could be watching it much more closely, and not be redundant when it——

Mr. BATORY. Better use of people, and reducing risk, and enhancing safety. I don't know what else you would want.

Mr. LAMALFA. Yes.

Mr. BATORY. Get the most bang for your buck out of the person out there that is a professional doing their job day in and day out.

Mr. LAMALFA. Keep the human element in there so you are not completely reliant on technology on its own, but a better combination.

Mr. BATORY. And once we develop enough facts as a result of exploiting technology, it will set the stage then for the parties to come together and say, all right, we had this prescriptive rulemaking. That is at the bottom of the line. Let's look at performance-based rulemaking, and figure out how to make this railroad industry even safer. This industry——

Mr. LAMALFA. Let me jump—I am sorry, I am losing time, too. But let me jump to the issue of our borders, OK, especially when we are talking the U.S.-Mexico border. What are we looking at, as far as the interactions there with the ability to have those interties be safe and up to snuff with what we would ask for?

Mr. BATORY. One of the things that I mentioned earlier, as far as our obligation, is to make sure that anything that happens in the United States—applies with this book [indicating Code of Federal Regulations]—there is nothing in this book that identifies the—if you will, the citizenship of who can operate a train.

Mr. LAMALFA. Is that an issue?

Mr. BATORY. So, as a result, the issue, from our perspective, FRA, is safety.

Mr. LAMALFA. Yes.

Mr. BATORY. So as long as that human being on that train is doing everything that he is required to, regardless of where his citizenship is, OK, then we are doing our job. And in the case of Laredo—and it is a matter that is under litigation right now that has been initiated by the rail labor organizations—we have had prior to that, and we continue to have observation inspections continually, to make sure, OK, that the Laredo operation is in total compliance to the CFR.

And we have had, I think, one or—somebody told me the other day I think we had two instances where we took exception.

Mr. LAMALFA. OK. My time is over. Thank you.

I yield back.

Mr. LIPINSKI. The Chair now recognizes for 5 minutes Ms. Wilson.

Ms. WILSON. Thank you, Mr. Chairman. In addition to serving on the Railroads, Pipelines, and Hazardous Subcommittee, I serve as chair of the Committee on Education and Labor's Subcommittee on Health, Employment, Labor, and Pensions, where I champion workers' rights to collective bargaining and fight to protect good-paying American jobs, such as those in the railroad industry.

In fact, last month I chaired a hearing on legislation to strengthen workers' rights to organize and bargain for higher wages, better benefits, and safer working conditions.

The state of the rail workforce is of tremendous concern to me and my constituents. Our district is home to an Amtrak station, several commuter railroads, including Brightline and Tri-Rail, and freight railroads such as CSX and Florida East Coast Railway. With so many trains transporting passengers and freight throughout our district, we are understandably concerned about every factor affecting safety. Despite growing efforts at the local and State level, Florida continues to rank high among the rail-related collisions and fatalities.

As such, I am glad that we are having today's hearing, as we focus on the workforce and highlight important issues such as the shrinking workforce, the increasing adoption of Precision Scheduled Railroading, fatigue, crew size, and the implementation of Positive Train Control. And, of course, safety. I have a few questions.

Administrator, the testimony and evidence before me suggests that FRA has adopted a culture of deregulation and decreased oversight at the expense of the safety and health of employees and passengers. Can you explain the administration's decision to withdraw the crew staffing rule and the data standards used to justify that decision?

Mr. BATORY. What I shared earlier, there are absolutely no facts to give oversight to. So, as a result, that is why the rule was withdrawn.

We do have a history of success on how we went from five to seven crewmembers down to two and three. And it was utilizing a tool that Congress gave us. So why not continue using that tool going forward, when the time is right?

And it has to be negotiated. A railroad just can't—a Class I railroad can't just arbitrarily say, because we took that rule down, "All right, we are going to start running one-man crews or autonomous

trains tomorrow." They have to sit down with labor and negotiate that.

Ms. WILSON. Have you done that?

Mr. BATORY. I don't, not in my capacity. I can't negotiate. I work for the United States Government.

Ms. WILSON. Well, have the appropriate people sat down and negotiated with labor? Because you have to justify that decision of the crew staffing. That is untenable, as we see it from this perch.

Mr. BATORY. Well, they certainly have a successful track record to look back on. It may not be the particular individuals themselves, but their predecessors certainly did a good job. So maybe there is some——

Ms. WILSON. Well, that is not the way we feel. There should not be any reason——

Mr. BATORY. Why——

Ms. WILSON [continuing]. To justify the decisions that have been made. You shouldn't have deregulated so much. That is my opinion.

The next question is——

Mr. BATORY. But let me just clarify, so you know——

Ms. WILSON. Or can you explain—let me go to the next, I don't want to run out of time.

Mr. BATORY. Crew size is not regulated.

Ms. WILSON. Can you explain why the administration announced that it did not see a need to regulate the development of artificial intelligence, or autonomous operations in the rail industry? Have any pilot studies or other investigative measures been taken to justify this decision?

Mr. BATORY. I think it would be best if we just get back with you in writing on that, because there are some assumptions being made that the Federal Government is involved in the regulating of train crew size, and it never has been.

Ms. WILSON. Mr. Administrator, you announced that there is no need to regulate the development of artificial intelligence in the rail industry.

Mr. BATORY. There is——

Ms. WILSON. Do you remember that?

Mr. BATORY. There is no regulation to develop artificial intelligence or autonomous operations at this time. We are—this is all developmental at this time, trying to get facts so that people can understand what needs to be regulated and what doesn't need to be regulated.

Ms. WILSON. There is a need to regulate artificial intelligence. My time is up, but we do need regulations in place.

I yield back.

Mr. LIPINSKI. The Chair will now recognize Mr. Stauber for 5 minutes.

Mr. STAUBER. Thank you very much, Mr. Chair. Before I question the Administrator I just want to tell you that the district that I represent is Minnesota's Eighth Congressional District, which is northeastern Minnesota. I believe there is four or five Class I railroads in that entire district.

I had the opportunity to go through a crossing and observe, for a day, a crossing in Ranier, Minnesota, which is just east of Inter-

national Falls, which is a heavy crossing for Canadian National Railway in this case. I want to talk to you about the workforce, because what I saw in relation to the railroads and the Customs and Border Patrol, what I saw was a functioning, well-oiled machine to make sure that there wasn't any stolen intellectual property coming across.

For me it was about this is kind of how it should be done with the railroads working with the Customs and Border Patrol and the workforce. And when I was there, during their check of the trains coming across, I personally witnessed a carload of imitation, artificial Crocs shoes that came from the country of China, which—stealing intellectual property. That is jobs, that is part of the economy.

I want to know how is it throughout this country that our railroads are working with our Customs and Border Patrol, and do you think that it can be better? What are some of the things that you suggest, from the industry standpoint, to make sure that we are protecting our intellectual property, our national security interests, so—you know, so it doesn't harm our manufacturers, our small businesses, and our country?

Tell me what the railroad is doing to enhance the safety of our country, as trains come and go, on both the north and southern border.

Mr. BATORY. Well, I am familiar with International Falls and the former DWPC on up there. But most of my experience comes from the Midwest, with the Canadian border and also somewhat with—during a chapter of my life, the southern border with Mexico.

But I have always admired, similar to what you shared—or at least my interpretation of what you shared—that the railroads work very closely with international border authority, insofar as not only the inspection of the trains, but when trains have to be broken up, set out cars for further inspection because there is doubt or concern or absence of proper documentation.

We have, since right around the era of post-9/11, we now have the ability to do, if you will, x ray of trains.

Mr. STAUBER. Right. Well, as far as—Mr. Administrator, as far as the timing of the trains coming and going, is the workforce adequate, from a Customs and Border Patrol—are the timing of the trains—is it good for the industry, or is it backed up? Because, you know, when they are delayed, it can mean, you know, some financial concerns.

So my question would be is there enough intercrossings at Customs and Border Patrol? Is there enough personnel available to make sure those trains come and go from our country in a reasonable time?

Mr. BATORY. As much as I would like to answer that question, I don't have the background on which to address what it is, nationwide. And I think each border point is a unique crossing unto itself, and the people that know best are the border authority officials and the railroads that work with them.

Mr. STAUBER. OK. In my last minutes here I want to just share with you. I was a former county commissioner for St. Louis County, Minnesota, and I am very impressed that safety is the priority for the workers and the public, because we are working—in our re-

quest to make crossings safer, we have been met with great cooperation.

And I will say that the rail industry is critically important to this country, and I am proud of all the railroads that have stepped up and looked at making our crossings safer, and with the cooperation—with the local townships, cities, and et cetera, to make them safer.

So I can't tell you how—from a county commissioner standpoint, how important it is to have that relation with the local communities to make sure those crossings are safe. And I know the rail workers agree with that, as well.

And I see my time is up, and I yield back, Mr. Chair.

Mr. LIPINSKI. The Chair now recognizes Mr. Lynch for 5 minutes.

Mr. LYNCH. I thank the chairman, and I thank the Administrator for your willingness—I am over here.

So, according to the Federal Transportation Bureau, the rail industry dropped about 30,000 rail employees over the past 4 years. Is that consistent with your understanding? I know you don't track this stuff, but they are saying there have been—there are now 31,000 fewer rail employees today than there were 4 years ago. You think that is right, or what is your understanding?

Mr. BATORY. I can't give you a confirmation of that number. But, as a whole, railroad employment has dropped.

Mr. LYNCH. Yes. So that is the Surface Transportation Board.

And your testimony earlier, when you were having the back-and-forth with Chairman DeFazio about the length of trains, I am just curious. You know, if the idea is that at some point we are going to have one person, one person driving the train, and it is—some of these long trains are how many feet long? How many cars long?

Mr. BATORY. The ones that, if you will, that I would say are—began to reach the upper limits of what people are operating today with the type of equipment they are operating, I see sometimes 15,0000, 17,000 feet.

Mr. LYNCH. Wow.

Mr. BATORY. But that is not——

Mr. LYNCH. So if something goes——

Mr. BATORY. But that is an exception.

Mr. LYNCH. Yes, yes. But then, still, your earlier testimony was that you got some other trains that are pretty close to that on a regular basis. Those were exceptionally long, but we are not talking short trains, either, here.

The idea is to move as many cars as possible, right? I mean that is the incentive, to lower cost, right?

So my concern is this. You got one person on a train at some point, and something goes wrong, and that conductor has to—or that engineer has to leave the car and then go check something out at the back of the train. So they leave the car completely unmanned, and walk back.

I mean you had a rule that you were considering up until May of this year. And that rule was to require two people to be on the train. It seems to make sense to me. You know, you have got fatigue problems, right? So not only is that one person who is going to be on the train overworked, and there is fatigue problems, but now you have got them leaving the car, and leaving the locomotive,

and then walking back and trying to figure out what is wrong. Just for the safety of that single employee it seems reckless and irresponsible to not require two people on the train. It just—it is mind-boggling.

And I know you are trying to squeeze every single dollar out of the—you know, the operators are trying to squeeze every single dollar out of these employees and every single train. But at some point, you know, common sense and basic concern for your workers—and the FRA has a role to play here. You set the standards, you know, you say—you know, you come up with some basic rules. This makes sense. This makes sense to have two people on a train.

Imagine that, you know. You have got a long train that has tremendous impact in local communities, you know, blocking crossings, and you have got one poor man or woman out there trying to run that whole operation. That is ridiculous.

Mr. BATORY. I certainly agree with what you said about common sense. That is why I think that a railroad—if you will, rail labor and rail management—OK, there is lots of common sense, and they can figure out what is right and wrong. And then, once they figure it out, they will negotiate it.

Mr. LYNCH. So why withdraw the rule? What is the thinking?

Mr. BATORY. What was the purpose? They have the Railway Labor Act, and there is no facts.

Mr. LYNCH. Well, you had the rule, you withdrew it. So it is not like I am——

Mr. BATORY. But there is no——

Mr. LYNCH. So it is not like I am asking you to do it. This is something you were going to do, and then you changed your mind.

Mr. BATORY. Well, there is no——

Mr. LYNCH. You withdrew the rule on May 23rd, 2019. You withdraw the rule to require two people on a train. Why—I am just asking you. What is the thinking? Why? I thought you had a good idea.

Mr. BATORY. By withdrawing the rule, they—there is nothing out there to support having a rule.

Mr. LYNCH. What?

Mr. BATORY. How do you give oversight to something if you have nothing to give oversight to?

Mr. LYNCH. No, you had a good idea. You had a rule, you proposed it——

Mr. BATORY. The result is nothing——

Mr. LYNCH. So it is not a vacuum. You had a good idea, you had a proposal, and then you withdrew it, in spite of the common sense that we both agree supports that rule.

Mr. BATORY. And here is the issue, in respect of time. And this is what I said earlier. We can sit here all day and bring everybody up here, and we will come up with all kinds of hypothetical examples——

Mr. LYNCH. No, I am not talking about a hypothetical——

Mr. BATORY. The opinion——

Mr. LYNCH. I am talking about your rule. This is your rule. You said——

Mr. BATORY. There was nothing to support it.

Mr. LYNCH. Well, why did you write it, then? What do you mean, there is nothing to support it?

Mr. BATORY. I wasn't here.

Mr. LYNCH. You have fatigued workers——

Mr. BATORY. I didn't write the rule.

Mr. LYNCH. You have huge trains, you have huge disruption to these communities where you have hundreds and hundreds of cars on these trains. And you are absolutely right, you should have two people on that train. You draft the rule, May 23rd comes and you withdraw it. There is plenty to support the rule. I agree with your rule. I am just worried—I am just wondering why you withdrew it, that is all.

[No response.]

Mr. LYNCH. I take that as an "I don't know, either, Congressman."

Mr. BATORY. No, I do know, but time doesn't allow me to share——

Mr. LYNCH. Well, you have plenty of time.

Mr. BATORY. My door is open, my phone is on, and I am available——

Mr. LYNCH. Well, we are here now, though. We are here now. This is the hearing on this.

Mr. BATORY. There is not a singular answer to the size of a train crew.

Do you realize today—has anybody shared with any of you, OK, that we are operating train crews today——

Mr. LYNCH. Yes, you shared——

Mr. BATORY. No——

Mr. LYNCH. The FRA shared a rule with me saying there should be two people on a train. You shared that with me. I didn't dream that up. You sent it to me.

Mr. BATORY. And we——

Mr. LYNCH. And then, on May 23rd, you withdrew it. And my question remains why did you withdraw it?

Mr. BATORY. Because there are no facts to support it.

Mr. LYNCH. Well, why did you send it to me, then?

Mr. BATORY. You will have to ask my predecessor.

Mr. LYNCH. All right. I yield back.

Mr. LIPINSKI. The Chair will now recognize Ms. Norton for 5 minutes.

Ms. NORTON. Well, thank you, Mr. Chairman. I want to pick up on—and I don't want to beat this one to death—I want to pick up on Mr. Lynch's statement, because this notion of the two-man crews, or two-person crews, has been going back and forth in this committee for a very long time.

Now, you said there was nothing to back it up, but the FRA itself—I am pointing to a 2016 study—it said—has studies showing the benefits of a second crewmember, and other information detailing potential safety benefits of multiperson crews. Now I am here quoting your own agency. In light of what your own agency found in studies, how can you justify rolling back the two-person crew, and perhaps putting the train into potential danger? I am quoting from the FRA itself, Mr. Batory.

Mr. BATORY. Well, I have never known a train to be in danger based on the number of people on a crew, especially with what I just shared with you earlier.

Ms. NORTON. Well, so why in 2016 did the FRA say it "has studies showing the benefits of a second crewmember"? You can see the problem you are posing for us when policy is not stable. And all you need is a second person to take back what was mandated.

You do have a problem. And not only that, let me ask you this. The FRA is now working to preempt State and local laws that seek to implement the two-person rule. Why are you doing that?

Mr. BATORY. Why would you want it?

Ms. NORTON. What?

Mr. BATORY. Wouldn't you rather have a level playing field for interstate commerce, for that—for our country, as a whole?

Ms. NORTON. So, although those State and local laws apparently agree with your own studies that I just quoted to you, that there are benefits to the two-person crew, they are going by your own studies. You are not going by your own studies. They are trying to safeguard trains when they pass through their States, and you are trying, you say, to put them in line with your pullback now of the two-person rule. For what reason?

Mr. BATORY. And the question is?

Ms. NORTON. Why are you now trying to get State and local laws——

Mr. BATORY. Because the FRA—we went back through everything we could find. There was nothing to substantiate the size of a train crew.

Ms. NORTON. OK. All right, Mr.—you know, Mr. Batory——

Mr. BATORY. Nothing.

Ms. NORTON. Except the only thing was what I quoted that you yourselves had found, and I quoted that, and I am—and the record will show the quote. So we are going back and forth. Remember, I didn't quote what some outside organization said, I quoted the FRA when I said the potential benefits of the two-person crew.

Let me go on, because what you have done is to give us testimony that makes us wonder whether we can rely on the FRA, when it can't even rely on its own studies. So it takes back rules that its own studies say it should not.

Mr. BATORY. Well, I will share this with you if you would just, like—when the FRA a few years ago elected to pursue this avenue——

Ms. NORTON. Elected to pursue what?

Mr. BATORY. This avenue of saying——

Ms. NORTON. Two-person crews?

Mr. BATORY. Two-person crew. I did share a professional position with the Administrator at the time, whom I have known for a number of years.

Ms. NORTON. And what did you tell him at that time?

Mr. BATORY. I said to him on the street corner of 3rd Street and M. I said, "If you do this, just make sure you have the facts to support what you are advocating."

Ms. NORTON. Well, he adhered to your advice, because——

Mr. BATORY. And there is no facts.

Ms. NORTON. He adhered to your advice because I have just quoted what their studies have shown.

Mr. Chairman, I won't belabor this any longer, but I should have thought that the two-person crew, ever since I have been in Congress, has been a subject of controversy with a study, and I think that is the responsible thing for the FRA to have done, indicating why the two-person crew was necessary. Indeed, they also found that having one-person trains pose—and here I am quoting from your own studies—"pose increased risks by potentially overloading the sole crewmember with tasks, and that PTC does not substitute for all the tasks performed by properly trained conductors."

So I rest my case, Mr. Chairman, and I yield back.

Mr. LIPINSKI. Thank you. The Chair will now recognize Mr. Malinowski for 5 minutes.

Mr. MALINOWSKI. Thank you. Well, I am going to belabor the point. Actually, I want to go back to the very beginning. I know this has been raised in a number of ways, but I just want to ask you simply. Should a 3-mile train be allowed? Yes or no.

Mr. BATORY. It can operate safely and efficiently, depending on the location and the integrity of the train. And the men and women that lead and maintain and operate this industry do an exceptionally good job. They don't go out there and just make up trains and figure out, "Well, I wonder if we can block a bunch of crossings today and inhibit the public, or perhaps run up the risk and have a derailment today." They do a real good job of ascertaining what they need to get accomplished.

Mr. MALINOWSKI. So the answer is yes. What about a 5-mile train, a 10-mile train? Should there be any limit, or would you just leave it up to the industry?

Mr. BATORY. I have never heard of one of those being operated, excepting Australia. And it was out in the middle of nowhere. That is the only place I have ever known a train that big.

Mr. MALINOWSKI. So it has happened.

Mr. BATORY. Oh yes. There was one train that was—well, it was close to——

Mr. MALINOWSKI. All right. I think——

Mr. BATORY [continuing]. 30,000 feet.

Mr. MALINOWSKI. I think we have your answer. If—let's say you got a 3-mile train, and you have got one crewmember. How long would it take for that crewmember to walk from the front to the back of the train to try to figure out the source of a problem?

Mr. BATORY. Well, if he is good walker, OK, it is going to take—basically, for a 3-mile train, what is that, an hour to walk to the rear, and another walk—an hour to walk back, and then maybe he might have—he or she might have to do something in the interim if they find something.

Mr. MALINOWSKI. Is that a good situation? Are you happy with that?

Mr. BATORY. I have never incurred that type of situation.

Mr. MALINOWSKI. What if the train is carrying liquid natural gas? Should there be any length to the limit of a train carrying LNG? And I ask because the Department is currently expediting review to make it easier for LNG to be transported in different kinds of railcars. My State of New Jersey, almost certainly we are

going to have large trains carrying LNG. Should there be any limit to the length of a train carrying that highly flammable explosive substance?

Mr. BATORY. I think it is best to let the science and facts determine that, if it is even necessary.

Think about where we have started and where we are at today. We used to have trains that basically were less than 1 mile long. Through technology and efficiency—and I told you the number of cars in a train have increased only 10 over the last 45 years, the number of cars. It is the linear length.

So, as a result, OK, these consists of these trains are safe. The in-train forces are studied constantly. You actually get a profile that gives you the distribution of tonnage in your train. The people that make up the trains know where to put the tonnage in that consist. People are doing a good job. We just don't go out there and say, "I think we will run some trains today and see what happens."

Mr. MALINOWSKI. Yes, well, people do a good job, which is why we want people on trains. So thank you for making my point there.

Let me get back to the LNG question, because the proposed rule would enable LNG to be transported in different kinds of railcars, in DOT 113 rail tank cars. And my understanding is that those would have about four times the capacity of the ISO cars that are now carrying LNG. Do you see any potential risk in vastly expanding the ability of the rail network to carry this substance in railcars that contain four times as much as is currently allowed?

Mr. BATORY. What has been shared to me at this date, no.

Mr. MALINOWSKI. Do you know what the blast radius is for one of the current cars, the ISO cars?

Mr. BATORY. Which kind of car? There are so many. I will tell you this. LNG has a lower pressure rate than any other volatile commodity out there. We are handling other commodities that have a much higher pressure rate.

Mr. MALINOWSKI. And you know what happens if it is exposed to the atmosphere in an accident.

Mr. BATORY. As I do the other commodities, as well.

Mr. MALINOWSKI. You have no concerns about——

Mr. BATORY. No, there is—because of the type of equipment, and the way in which we handle it. If people do their job the way that the regulations and the rules and recommended policies and practices are set forth, it will work.

Mr. MALINOWSKI. So you would be fine with a 3-mile-long train carrying liquid natural gas through New Jersey with a one-man crew, because people do their jobs?

Mr. BATORY. Well, I have operated one-man crews in New Jersey and never had any problems.

Mr. MALINOWSKI. Thank you. I yield back.

Mr. LIPINSKI. Thank you. I yield to Chairman DeFazio for 5 minutes.

Mr. DEFAZIO. Thank you, Mr. Chairman. Thank you, Mr. Administrator, for being here for a long time. But I want to follow up on the LNG question. I have tremendous concerns about this.

Currently there are limited exemptions: Alaska Railroad, they can have 12 intermodal containers on any train consist. Crews have to have special training, emergency response organizations

have to have special training. It has to be documented and provided to the FRA.

And then, we are now seeing a proposal in Florida that is similar to this. They are limited in speed. And there are a whole bunch of conditions on this.

I think that LNG is a unique commodity, and you might not be familiar with its characteristics. It is essentially liquid compressed, but when exposed to the atmosphere it has a tendency to turn into a very large cloud, which is very combustible over a very large area. Oil doesn't do that. Ethanol doesn't do that. It is volatile, it burns, but it doesn't create a giant cloud in the atmosphere like LNG does.

And we now have a proposal for a special permit to essentially create a railroad liquid pipeline that is a continuous loop of 100 cars, 6 trains, in Florida through heavily populated areas. And, as I understand it, the Pipeline and Hazardous Materials Safety Administration is consulting with FRA on this.

Where are we at in that process?

Mr. BATORY. I am familiar with the permits that have been given for LNG so far. OK, and they are basically in southern Florida, and I believe there is another permit in western Pennsylvania, if I am not mistaken.

And from my understanding, and conversations with this whole LNG movement, a lot of due diligence is being given to it insofar as making sure that it is nothing less than what we are accustomed to today in the safety of handling hazardous and volatile materials.

One of the things that I have been impressed by is what the industry has come to realize in the way of equipment to handle LNG as far as the tank car with the two vessels and the insulation in between, the stub cell that has been designed on both ends. A lot of smart people are doing a lot of good work, making sure that when LNG does get transported on the rails, it will be transported with the least amount of risk, if any, and rely on the people that do their jobs every day to do it safely.

Mr. DEFAZIO. Is the 113 car absolutely puncture proof?

Mr. BATORY. Nothing is absolutely puncture proof in this—nothing.

Mr. DEFAZIO. All right.

Mr. BATORY. It depends on the circumstances and the incident at the time.

Mr. DEFAZIO. OK, so given that they are not puncture-proof, and we just recently had some ethanol spilled out of cars that were basically supposed to be at least puncture-resistant, let's say 113s are the same, they are puncture-resistant. So, again, I would urge you to have your staff look at the unique characteristics of LNG. I mean the only thing I can think that is similar, in terms of potential fatalities, is chlorine, except that doesn't explode, it just poisons people.

You have the potential for a massive fireball with just one of these cars, let alone multiple cars being punctured. And accidents do happen for different reasons: someone threw a switch when they shouldn't throw the switch, you know, things have happened. And I just think that we really should think multiple times before we

start allowing a 100-car train, 6 a day, operating continuously in a very heavily populated State.

One last point, which is you were involved in withdrawing the rule. Is that correct? On two-person crews.

Mr. BATORY. Oh, definitely.

Mr. DEFAZIO. OK, but you said earlier that you had talked to a former Administrator—I don't think you gave a name—about that issue when you were working for the railroad industry. Is that correct?

Mr. BATORY. Yes, sir.

Mr. DEFAZIO. Well, my understanding is discussing a rule does not meet the 2-year exemption, that you would be permanently recused from being involved in that issue. All right.

Mr. BATORY. It was——

Mr. DEFAZIO. Have you consulted with counsel?

Mr. BATORY. It was long before that, OK, it was not the immediate prior Administrator. It was—I would have to look on a calendar. I am going to say it was probably 2013, 2014. The rule hadn't even been proposed. And I was being very candid and honest with you.

But the short of it is I sit here before you. And I will look at anybody and say, "Let's just do what is right, and rely on the people that know what to do as best." And they will figure it out. We won't. They will figure it out.

Mr. DEFAZIO. Well, the problem is, as I said in my earlier statement is that Wall Street is setting the terms and pressuring executives, and they aren't concerned about safety. That is an external diseconomy to them. Their annual or monthly or quarterly profits are what is being watched by Wall Street. Only if there is an absolutely catastrophic accident, the bank stops the railroad, will they care about it. But short of that, they don't give a hoot. And that is my concern, that the pressures are being exerted in ways that are going to jeopardize safety.

The questions we are asking about the Boeing 737 MAX may come to that same conclusion. Pressures to get market share, to market products, to drive up the stock price so you get a bonus, those are not things that lead to safety concerns.

In any case, I guess we are going to disagree. But I think the industry has changed a lot very quickly since you worked there.

Thank you, Mr. Chairman.

Mr. LIPINSKI. Thank you, Chairman DeFazio. I would like to thank Administrator Batory for your testimony today. And you are now dismissed, and we will call up the second panel of witnesses. Thank you very much. The second panel will come up.

[Pause.]

Mr. LIPINSKI. I would like to welcome our second panel of witnesses.

We have Mr. Dennis R. Pierce, president of the Brotherhood of Locomotive Engineers and Trainmen; Mr. John Previsich, president of SMART Transportation Division; Mr. Jerry C. Boles, the president of the Brotherhood of Railroad Signalmen; Mr. Andrew W. Sandberg, assistant to the president, directing general chairman, District Lodge 19 of the International Association of Machinists and Aerospace Workers; Mr. William Gonzalez, president of Am-

trak Police, Fraternal Order of Police Labor Committee; and Mr. Ian Jefferies, the president and CEO of the Association of American Railroads.

I want to thank you all for being here today. I look forward to your testimony.

Without objection, our witnesses' full statements will be included in the record.

As with the previous panel, since your written testimony has been made a part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes.

Thank you for your testimony today. We will begin with Mr. Pierce.

Mr. Pierce, you are recognized for 5 minutes.

TESTIMONY OF DENNIS R. PIERCE, NATIONAL PRESIDENT, BROTHERHOOD OF LOCOMOTIVE ENGINEERS AND TRAINMEN; JOHN PREVISICH, PRESIDENT, TRANSPORTATION DIVISION OF THE INTERNATIONAL ASSOCIATION OF SHEET METAL, AIR, RAIL AND TRANSPORTATION WORKERS; JERRY C. BOLES, PRESIDENT, BROTHERHOOD OF RAILROAD SIGNALMEN; ANDREW W. SANDBERG, ASSISTANT TO THE PRESIDENT, INTERNATIONAL ASSOCIATION OF MACHINISTS DISTRICT LODGE 19; WILLIAM GONZALEZ, PRESIDENT, AMTRAK POLICE LABOR COMMITTEE; AND IAN JEFFERIES, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ASSOCIATION OF AMERICAN RAILROADS

Mr. PIERCE. Good morning, Chairman Lipinski, Ranking Member Crawford, and subcommittee members. I appreciate this opportunity to appear this morning, and I thank Chairman DeFazio for inviting me to testify, and for his and Ranking Member Graves's leadership of the T&I Committee.

My name is Dennis Pierce. By occupation I am a locomotive engineer. I am also proud to be the national president of the oldest union in North America, the Brotherhood of Locomotive Engineers and Trainmen. I also serve as president of the Teamsters Rail Conference.

We were asked what the state of the rail workforce is. I must, unfortunately, report to you that, while rail worker productivity has never been better, and Class I railroads have enjoyed multibillion-dollar profits for many years, employment levels are headed in the other direction with thousands of rail employees furloughed. Some of this is due to a modest downturn in traffic. More is undoubtedly due to deployment of certain technologies. But the most serious threat to the workforce, at least in the short term, is the industry's fascination with Precision Scheduled Railroading, or PSR.

You have heard the stories already. It is asset maximization. This means the loss of jobs for union-represented employees, but there are ways that it also impacts those employees who remain. For our perspective, the vast majority of engineers and conductors are on-call employees. They must report to work with as little as 90 minutes' notice, and they rely on train lineups to protect their work starts.

PSR has all but eliminated many of the jobs of the employees who manage and update train lineups, and who balance the crews when traffic is not even, leaving a predictable work start at an all-time low.

Add that many carriers have implemented draconian attendance policies forcing employees to report to work, even when not fully rested, due to this poor predictability. Forcing employees to work fatigued in order to avoid discipline endangers both the workforce and the general public. Ironically, Congress mandated fatigue mitigation programs in 2008, but FRA has yet to finalize those regulations. We would ask that this committee act to ensure that meaningful steps are taken by FRA to mitigate fatigue, as Congress commanded 11 years ago.

Equally concerning is FRA's refusal to address the ever-longer trains that are a cornerstone of PSR. With the increased use of locomotives distributed throughout the train controlled via telemetry, a single engineer is responsible for controlling and operating trains that are several miles long. This push for longer trains with fewer crews has reached a breaking point.

The limits of the telemetry that allows an engineer to control the rear-end device on a long train from the head end have been exceeded. And end-train communication losses are becoming commonplace. A blockage in a train's brake system and a communication loss to the rear end can have catastrophic results, yet FRA does nothing to address the situation.

Also at the forefront of the public debate is train crew size. There are some that argue that technology should replace crewmembers. I am here to tell you that no technology is designed to prevent all accidents, particularly low-speed collisions, or most highway-rail crossing accidents. And there is no technology even on the horizon that can replace the safety benefits of having two crewmembers on a train during operations or in the event of a derailment or accident.

The previous administration initiated rulemaking to require two crewmembers on certain freight trains, but the current administration discontinued that. And in a departure from the mentality that States should be able to regulate their own business, they have attempted to preempt State laws that might govern the same issue. We urge you to pass H.R. 1748, the Safe Freight Act of 2019, which has been sponsored by Congressman Young, and has over six dozen bipartisan cosponsors.

Finally, I want to talk about a front-burner issue involving BLET members in Laredo, Texas, that threatens to extend well beyond that area. Beginning in 1920, American crews picked up and delivered all international freight traffic at the U.S.-Mexican border on the International Bridge. Last July our crews were replaced by Mexican crews employed by a Mexican subsidiary of an American railroad to man the operation between the bridge and the Laredo yard.

This is a very complex dispute, which has been and is being contested in a number of forums. But for your purposes, it is important to understand that Mexican law preserved in NAFTA requires that, for rail operations in Mexico, all railway crewmembers must be Mexican nationals. When our crews were replaced, we asked the

White House to intercede. We have yet to receive a response. We also requested that U.S. Trade Representative Lighthizer insist on a reciprocal provision in the pending USMCA. He did not do that.

This Congress can do what the administration has not. We seek legislation that mirrors the protection Mexican workers enjoy in their country, a law that says trains originating in Mexico may only be operated in the United States by crews comprised entirely of citizens or nationals of the United States. I find it shameful that the Mexican Government has done more to protect the jobs of its workers than the Government of my Nation. And I ask for action.

Despite the difficulties I have talked about, America's rail workforce provides the best rail transportation in the world. The data is in my written testimony, as are greater details of what I have highlighted.

Thank you for your time and attention.

[Mr. Pierce's prepared statement follows:]

Prepared Statement of Dennis R. Pierce, National President, Brotherhood of Locomotive Engineers and Trainmen

Good morning, Chairman Lipinski, Ranking Member Crawford, and Members of the Subcommittee. I appreciate the opportunity to appear before you this morning. I also want to thank Chairman DeFazio for kindly inviting me to testify today, and for his and Ranking Member Graves' leadership of the Transportation & Infrastructure Committee.

My name is Dennis Pierce, and I am the National President of the oldest trade union in North America, the Brotherhood of Locomotive Engineers and Trainmen, which was founded in 1863. I also am the President of the Teamsters Rail Conference, of which the BLET is the founding Union.

The subject of today's hearing is "The State of the Rail Workforce." I have a number of comments and observations regarding this question on a national scale.

Although the productivity of the rail workforce has never been better, that increased productivity does not always translate into reliable or safe jobs. Productivity is going ever upward, but employment levels are headed in the other direction, with many hundreds—if not several thousand—in furlough status as I sit here today.

A small fraction of this likely is due to a modest downturn in traffic currently being experienced. A more significant portion is due to the deployment of technologies as "labor-replacing" rather than "labor-saving" devices. But the most serious threat looming over the horizon—at least in the short term—is the industry's fascination with Precision Scheduled Railroading.

I don't deny that investors should receive a reasonable return on their investment. And I understand that railroads have to compete in the marketplace for financing when they have such a need.

But, the fact of the matter is that the Class I railroad industry has been enjoying multibillion-dollar profits for many years. Operating revenues for the seven Class I carriers totaled nearly 90 billion dollars last year alone.

In spite of this profitability, PSR has become the norm, and the key component of PSR is termed "asset maximization." Every corporate asset is squeezed in order to obtain every single available financial benefit. Through this process, hundreds of locomotives and cars already have been mothballed, and that number will increase into the thousands in the next few years. Dozens of shops and yards already have been closed or are slated to be shuttered.

And where a line doesn't pass muster under the asset maximization test it will be sold off or leased to some short line. NS did just that last year with an entire operating division, and CSX recently completed the sale of its main line along the Florida Panhandle.

While all this unfolds, thousands of railroad workers will join the furlough lines, so that the already immensely profitable Class I railroad industry can become even more profitable.

Beyond the loss of employment for Union-represented employees, the Carriers' collective drive for profits has also impacted those who manage, as well as those employees who should be able to count on a well-managed workplace. As information, the vast majority of the nation's engineers and conductors working in freight service

are considered "on call employees." They must stand ready to go to work for up to 12 hours on duty in safety-sensitive positions with only an hour and half notice in many cases, 24 hours a day, 7 days a week. The round trips that they report for can range anywhere from 18 to 48 hours. One would ask—How could anyone be prepared to report to work truly rested, able to work safely in such an environment?

Scheduled on-duty times, or reliable train line ups that predict work start times, are the only way that can happen; but, unfortunately, the quality of many Class I train lineups has become another victim of the PSR mentality. In many cases, the positions of the employees who previously managed and updated our train lineups, as well as those who previously managed the balancing of our crew bases with train traffic flows that are not directionally even, have also been eliminated.

As a result, train crews are routinely called to go to work, unable to obtain meaningful rest, all because the employer-provided prediction for their next work shift was completely inaccurate. Once they do report to work, crews are routinely left at their away-from-home terminals for longer than they are allowed to stay at home between trips. This further compounds the problems associated with this "do more with less" PSR management style in that employees who are not properly utilized are no more available for service than those who were furloughed.

Adding insult to injury, many freight Carriers have implemented draconian attendance policies that force employees to report to work, regardless of their ability to obtain meaningful rest due to the poor predictability provide by the employer. Put yourself in this proverbial Catch-22—if I tell them I am too tired to work safely, I could be terminated. The days of this treatment must come to an end; forcing employees to work fatigued to avoid disciplinary action is a danger to not only the workforce, but to the general public in the cities that we operate trains through.

Ironically, Congress took action to address fatigue with the passage of the Rail Safety Improvement Act in 2008. Unfortunately, the Federal Railroad Administration ("FRA"), the Federal Agency obligated to implement the fatigue mitigation mandated by the 2008 RSIA, refuses to do anything that uses the word "regulate." As a result, avoidable fatigue continues every day, and the nation's railroads are less safe due to this failure to regulate as RSIA required. I am hopeful that this Committee can take action to see that meaningful steps are taken to mitigate fatigue in the rail industry. We must have an FRA that fulfills its obligations to the railroad workforce, as well as to the general public.

Of equal concern is FRA's refusal to take even the slightest interest in the longer and longer trains that have become a cornerstone of the PSR mentality. It is obvious to most observers that the ever-increasing use of Distributed Power (or "DP") locomotive consists—where extra locomotives are placed in the middle and rear of trains and are controlled via telemetry from the head end—has led to longer and longer trains. Day in and day out, a single locomotive engineer is charged with the responsibility of controlling and operating these longer and longer trains. As a credit to the engineer's professionalism, the majority of these trains arrive safely at their destination.

But this push for longer trains that use fewer crews has now reached a breaking point insofar as the technology involved. In case after case, the limits of the two-way telemetry technology that allows one engineer to communicate from the head end of the train to the rear end of the train are being exceeded. What is known as "comm loss" to working engineers has become common place day after day.

Here is why this is a safety concern that FRA should take an interest in. When things go wrong on a moving train, they generally go horribly wrong. There are documented cases where blockages in the train's air brake system have prevented the engineer from utilizing all of the train's brakes from the head-end locomotive. Technology has been in place for over 25 years that allows the engineer to activate an emergency brake application from the rear end of the train forward when the train line is blocked, thus stopping the train safely. That technology is being defeated on a daily basis because the train lengths associated with PSR exceed the reach of that technology. The railroads and FRA turning a blind eye to this daily occurrence are contributing to a workplace that is not as safe as it could be. FRA's primary mission is to take the action necessary to ensure safety on the nation's railroads. History makes it clear that, in some cases, this safety mission requires regulations. And in cases where FRA would not regulate, history also shows us that Congress must legislate to ensure rail safety. That was the case with RSIA in 2008.

Despite stellar productivity and efficiency improvements over the past several decades, the rail workforce nonetheless finds itself approaching a period of potentially serious job insecurity. There are two causes of this insecurity—the manner in which new technologies are being deployed and, as I have noted, the adoption of the "PSR" business model.

Regarding the first cause, locomotive cabs are in the midst of a technological revolution. Technology systems such as "Trip Optimizer" and the "Locomotive Engineer Assist/Display & Event Recorder"—or "LEADER"—have been installed for fuel conservation purposes. They impose a level of control over train operations that supersedes the judgment of the engineer. Many railroads impose disciplinary suspensions, or worse, upon engineers who don't subordinate their professional judgment to recommendations from these systems. As a result, engineers all too often have their attention diverted from the track ahead in order to monitor the control system, so that they may avoid potential discipline.

We, along with the SMART Transportation Division, asked the FRA in early 2016 to issue an Emergency Order restricting the use of these systems pending a review of their impact on railroad safety, and possible regulatory action. FRA denied our request, and instead formed an Integrated Product Team within its Research & Development, Human Factors Division, on which we participate. However, after nearly 3½ years, the Agency has not moved to address this problem via a rulemaking. Again, the industry's safety regulator will not regulate.

We are seeing similar problems with locomotive monitoring systems. As you may know, the technology in state-of-the-art locomotives can provide real-time data concerning a number of locomotive systems and operating conditions. This technology can be configured to provide text or email notifications to designated railroad officials whenever certain types of events occur, such as heavy braking or when a train experiences an emergency brake application.

When an engineer experiences an unanticipated degrading of a train's braking capability, or even slightly miscalculates the braking distance needed to conservatively slow or stop the train, the tendency is to avoid heavy braking or initiating an emergency brake application that will trigger an alert . . . even if that results in a riskier outcome. This, too, is because of the industry's "command and control" discipline philosophy—where the only tool is a hammer and, consequently, every engineer looks like a nail.

And, unfortunately, we are receiving numerous reports regarding Positive Train Control system communication interruptions that are leading to PTC system enforcements with little or no prior warning, also resulting in disciplinary charges. We are beginning an internal survey to quantify this problem, so I am not prepared to discuss this particular difficulty further at this time, but we will address it in the future when we have sufficient reliable data.

What all these technologies—from fuel conservation systems, to locomotive monitoring systems, to PTC and its numerous screens of data display—have in common is that they require the train crew, and especially the engineer, to divert significant portions of their attention from actual operation of the train and vigilantly monitoring the route ahead.

Railroads are fond of using the term "loss of situational awareness" when an incident occurs that includes a human factor cause. The implication when one alleges that someone lost situational awareness is that he or she wasn't paying adequate attention. The fact of the matter is that all of the new technologies have created "task saturation" or "task overload"—there are simply too many inputs requiring the individual attention that each one needs.

It is this task saturation that leads to situational awareness problems, when they arise. Equally concerning is the fact that the way these technologies have been deployed causes engineers to operate their trains in whatever manner will produce the least number of warnings or event reports, and regardless of what their experience tells them. This will lead to the degradation of engineers' train handling skills over time.

Then, when one or more systems fail—as they inevitably do—it will be extremely difficult for the engineer to rely upon skills that have not been practiced for some time. This could be catastrophic in an emergency, as recent conflicts between avionics systems and flight deck crew control over an aircraft have shown us. For the railroad industry, there also is a particular concern because these types of systems are vulnerable to being hacked or attacked from the outside.

The other problem is that many technologies being studied today are not intended to be "labor-saving" devices. They are being proposed as "labor-replacing" devices. There is talk of replacing track inspection by maintenance of way employees—who also are members of the Teamsters Rail Conference—with fly-by aerial inspection using drones. There also is ongoing study of replacing physical inspection of freight cars with electronic scanning. In fact, one of the four largest Class I railroads went on record last year as being interested in pursuing completely autonomous train operations, and eliminating the need for train operation by a human.

But the most significant public debate today is over the size of train crews. The industry argues that, in some cases, PTC has made the two-person crew redundant,

and that a job should be eliminated. However, PTC is not designed or intended to prevent all accidents. PTC cannot prevent low speed collisions. Nor does it reduce the potential for accidents at highway/rail crossings caused by motorists who fail to yield to the train. In other words, PTC is not the silver bullet that some would have you believe. Regardless of what Carrier witnesses may tell this Committee, there is no technology even on the horizon that can replace the safe workplace resultant from having two crew members on the train.

In fact, PTC significantly contributes to the task saturation problem I mentioned before. To be sure, the benefits of the technology outweigh its risks, but by any objective analysis the need for a two-person crew—both in terms of workload management and to enhance public safety in the event of a derailment or mechanical breakdown—has not been diminished in the least by PTC deployment. Not to mention PTC will be implemented on only a portion of our nation's railroad tracks.

In spite of all of this, the industry's safety regulator has again refused to regulate. Although the previous Administration promulgated a rule making that would have required two crew members on many forms of freight service, the current Administration has withdrawn that rule making. In doing so, FRA has further attempted to "negatively preempt" all State laws that make any effort to legislate crew size. For all of these reasons, and to ensure the safety of all rail workers, we strongly support H.R. 1748—The Safe Freight Act of 2019—which has been sponsored by Congressman Young and has over six dozen bipartisan cosponsors. We urge passage of this Bill by the House and the Senate, and that President Trump sign it into law.

In the end, this Committee can help insure that technologies are not implemented in ways that make safe human performance in the workplace a near impossibility, and that they are "labor-saving" rather than "labor-replacing." And the Committee can help insure that our national rail transportation system is not harmed by speculators seeking to swoop in, extract as much value from the railroad as possible, in the short term, and then run away to create another victim. We look forward to working with you to that end.

Finally, I want to talk about a front-burner issue involving BLET members in Laredo, Texas.

There is a bridge in Laredo—called the International Bridge—that is used for cross-border rail freight traffic between our Nation and Mexico. Since the Bridge was built in 1920, the cars carrying the cross-border freight were interchanged right at the border. In more recent times, Mexican crews turned over northbound trains to U.S. crews at that point, where our crews also turned over southbound trains to Mexican crews.

When a northbound train enters the United States, it undergoes a small number of FRA-required safety inspections and tests in order to be authorized to move to Laredo Yard, which is less than ten miles away. The full range of required FRA inspections and tests are performed after the train arrives at Laredo Yard. The less rigorous inspection and testing at the border are permitted under a 12-condition waiver initially granted by FRA in 2008, and the majority of the conditions that were imposed were suggested by this Union.

A little over a year ago, we were informed by the Kansas City Southern Railway, and its subsidiary The Texas Mexican Railway, that our Tex-Mex crews would be replaced by Mexican crews—who are employed by yet another KCS subsidiary—in the operation between the Bridge and Laredo Yard. This has been a very complex dispute, which has been and is being contested in a number of forums.

I am not going to discuss today the railroads' lawsuit to enjoin our strike over our members being replaced by Mexican crews, except to say that I disagree with the judge's conclusion, because that litigation has been completed. I also am not going to discuss today either our lawsuit against the FRA—for its actions and inaction regarding this matter—in the D.C. Circuit Court of Appeals, or our arbitration case against the railroads, because both are pending matters.

I will tell you that I wrote President Trump on July 10th of last year regarding what was happening in Laredo, but I have yet to receive the courtesy of a response. I also will tell you that—with the assistance of the Teamsters Legislative and Global Strategies Departments—we reached out to Trade Representative Lighthizer to request that the pending United States-Mexico-Canada Agreement include a provision reciprocal to a labor condition granted to Mexico as part of the original North American Free Trade Agreement; this effort has been similarly unsuccessful to date.

Under Mexican law, all "Railway crew members must be Mexican nationals." This requirement was accepted by the United States over 25 years ago as a condition of NAFTA, and is set forth in NAFTA Annex I, Schedule of Mexico at I–M–63 (citing Ley Federal del Trabajo, Capítulo I), available at https://www.nafta-sec-alena.org/Portals/0/Documents/en/Schedule%20of%20Mexico.pdf.

For purposes of American railroad safety law—and specifically under FRA regulations governing certification of locomotive engineers and conductors—the only foreign nationals authorized to serve as a crewmember where certification is required are Canadians. See 49 C.F.R. §§ 240.227, 242.127. Nevertheless, it is an absolute certainty that, at some point during this hearing, there will be a Mexican crew running a train somewhere between Laredo Yard and the International Bridge.

I am bringing this issue to your attention because I hope that your Committee becomes involved in addressing this injustice. So I will tell you certain facts that you should know from the very start:

- You will be told that cross-border rail operations can create significant delays for automobile and pedestrian traffic in Laredo. This is true.
- You also will be told that this is largely because of the crew change at the border. This is demonstrably false; the tests and inspections mandated by the FRA waiver still must be performed, and there is an extremely low speed limit in effect when the train is scanned by the Customs/DHS VACIS system.
- You will further be told that this Union has been obstructionist; the truth is that we made multiple suggestions how to either eliminate any delay from crew change altogether, or shorten it from the 2–3 minutes the change typically requires.

The main reason for the delays is not the exchange of crews but the border patrol, which uses an x-ray machine to inspect the train for contraband and human trafficking. If they see something suspicious, the train must be stopped and inspected further.

This Congress has the ability to do what Trade Representative Lighthizer was unable to do—and what the President has not seen fit to do. We seek legislation that is identical to the national law in effect in Mexico. We seek a statute that says: "Trains originating in Mexico may only be operated in the United States by crews comprised entirely of citizens or nationals of the United States."

Stepping back, now, to the systemic question, from the perspective of the men and women who operate America's freight, passenger and commuter trains—and, I believe, their brothers and sisters who work in the various crafts to provide the best railroad transportation in the world—I think the state of the rail workforce can be summarized in two brief statements.

One is that the rail workforce faces serious challenges in the years ahead, which I've already discussed. The other is that the rail workforce—despite all the challenges and the uncertainty—has never been more productive and efficient.

As measured in terms of productivity and efficiency, the rail workforce has never been better, according to statistics published by the AAR:

- Between 1980 and 2016, traffic density tripled, from 5.58 million ton-miles per mile of road to 16.99 million ton-miles per mile of road.
- Railroads today can move one ton of freight 479 miles on one gallon of fuel, which is double the fuel efficiency in 1980.
- Further, from 1980 through 2017, rail employee productivity—measured by ton-miles per employee—rose 467 percent . . . locomotive productivity—measured by ton-miles per locomotive—rose 93 percent . . . and average freight carried per train rose 63 percent.
- Lastly, the most commonly used broad measure of rail-industry productivity—ton-miles per constant-dollar operating expense—was 159 percent higher in 2017 than in 1980.

I thank you for your time and attention this morning, and am happy to attempt to answer any question you may have.

Mr. LIPINSKI. Thank you, Mr. Pierce.

I recognize Mr. Previsich.

Mr. PREVISICH. Thank you, Chairman Lipinski, and also Ranking Member Crawford, for allowing us to be here today, and inviting us to such an important hearing. At this time, with recent developments, this hearing takes on more importance due to recent actions by FRA.

I prepared a 5-minute-long speech today with a number of issues to address, some of the items that I think are important to the people that I represent, and also to the American public. But after hearing testimony from the first panel this morning, I have dispensed with those prepared comments on 5 minutes, because I be-

lieve there are two issues that have risen that need extra attention, and I think you deserve a different perspective on those issues.

And to begin, I would like to address FRA and its—apparently, to me—abdication of its oversight responsibilities with respect to a number of issues. And I am going to go back a little bit in history.

In 2008 Congress passed the Rail Safety Improvement Act. It was a very large piece of legislation, it had a lot of ramifications, including Positive Train Control and others. Since that time—we are talking over a decade later—there were mandates in that law requiring certain fatigue pilot projects, and issues that would address the welfare and working conditions of the Nation's railroad workers. FRA has not yet implemented any of those provisions. We have a list—it is contained in my written submission, I would ask you to review it—showing exactly how FRA has abandoned those conditions which are most important to us who work on the railroad.

And I too am a railroad worker. I started out on the railroad doing the work of being both brakeman, conductor, locomotive engineer, and now the president of the largest rail labor union in North America. I know about this business, I know what I am talking about. And FRA's decision to abandon the railroad workers and the safety of the American public is devastating to me, personally, and to the people that I represent.

In addition to the 2008 RSIA mandates that were never implemented, we have a number of other issues. One is the Mexican issue with crews coming across the border into our country that my colleague Mr. Pierce has already referenced. I would like to comment on that in a brief fashion, and that is, despite what you heard this morning, despite what you will hear from any industry representative, those crews are not certified to the American standard. The oversight that goes to certification of conductors and locomotive engineers in this country cannot be extended to those people.

What we have done here is the FRA has accepted industry comments that—don't worry about it, we are doing the same thing there that we do here. FRA has no opportunity for oversight. They can only take the word of the railroads, and the railroads have proved historically that they cannot self-regulate in the safety arena without oversight from the Federal Government. And I encourage all of you, all of Congress, to take a look at that very important issue.

Beyond that, one of the most important things that we are talking about today is the two-person crew. May 23rd, this FRA went back on all of the information, all of the studies, and all of the work of the prior administration, and rescinded its Notice of Proposed Rulemaking, rescinded the notice that was going to guarantee a certain minimum level of staffing for trains carrying hazardous materials 3 miles long. Technology not yet in place to diminish or displace any of the crew staffing people that are already there.

And we have heard something about collective bargaining, that it should be left to the Railway Labor Act. We are good at negotiating under the Railway Labor Act. We know how to do that. However, minimum safety standards cannot be negotiated to the degree

that it needs to be overseen by the regulatory agency tasked with safety on the Nation's rail industry. We cannot replace it with collective bargaining. The conditions of the financial considerations contained in collective bargaining, the avenue for coming to a conclusion should the parties disagree, none of that lends itself to a satisfactory conclusion of rail safety. It does not belong in the collective bargaining arena.

Going beyond that, I wanted to talk for a moment, a brief moment, about precision railroading. It is exactly what we have heard already today. It has nothing to do with precision anything. What it is is hedge fund investors moving into an industry that was well-operated, well-funded, and well-maintained, and harvesting money that should be going to future operations, capital improvements, investing in the industry, and putting it into this month's bottom line, lowering their operating ratios by reducing staffing and operations to the point that customer service is impacted, railroad worker safety is impacted.

We now are doing more with less. We take a 3-mile-long train, we put two people on there, task-saturated with all that they have to do in moving that train from point A to point B. And in addition to that, we reduce staffing levels to the point that those people have to come to work, whether they are sick, whether they are fatigued, whether they are tired. It doesn't matter.

The requirements are there that, should they violate some recently enacted availability policy on all of the major railroads, they run afoul of the rules, they get disciplined, they get charged, and they end up coming into work when they are tired, when they should be home resting, either resting from work or recovering from illness. Instead, they are forced to go to work, and they don't even know when that call is going to come.

We have asked the industry time and again to modify their operations to give us a 10-hour call. They refuse to do so. We propose that Congress take a look at the hours of service, make certain modifications. Right now we get 10 hours off after we get off work. That is good. We need 10 hours' notice before we go to work. There is no way you can be rested at 3 o'clock in the morning if you don't know whether you are going at 11 p.m. or 7 a.m. You have to know, advance notice, when you are going to work. That doesn't occur in the industry today, with very little exception. And I think it is a subject worthy of Congress' attention.

I think I may have exceeded my time. Thank you very much again, and I appreciate this opportunity.

[Mr. Previsich's prepared statement follows:]

Prepared Statement of John Previsich, President, Transportation Division of the International Association of Sheet Metal, Air, Rail and Transportation Workers

On behalf of SMART Transportation, I want to thank Chairman Lipinski and Ranking Member Crawford for holding this timely and vital hearing, and for inviting me to join this panel. I am honored to represent thousands of workers throughout the industry, including on freight, passenger and commuter rail, as well as transit.

In assessing the "State of the Rail Workforce", the short answer is, at best, mixed. Whether judging on safety, competitiveness, or the integration of new technologies, we have seen some improvement across the industry. However, federal regulators,

Congress, and the railroads themselves have significant work left to do in order to improve working conditions and ensure safety for both the men and women operating U.S. railroads and the American public.

One cannot discuss the state of the rail workforce without addressing safety. The safety of my members and people who live in communities through which railroads operate will always be my top priority. While the industry has made meaningful progress in this regard over the past 50 years, much more needs to be done. More importantly, the progress that has been made should never be used as an excuse to ignore ongoing safety problems, or worse, roll back regulations or undermine protocols that have delivered these safety improvements. Unfortunately, this is precisely what railroads and the Federal Railroad Administration are currently attempting to do.

First, I want to present a realistic snapshot of the current state of rail safety. At every opportunity, the railroads and FRA state that safety in the industry is improving each year. However, the numbers present a different story. When normalized against drastic reductions in employment, number of trains being operated, trackage, and grade crossings, etc., the safety figures are not satisfactory. In fact, in recent years the numbers are getting worse. Between 2015 and 2018, fatalities on the railroads increased 13.9%.[1] Between 2017 and 2018 alone, railroad fatalities increased from 821 to 853, and employee deaths increased from 11 to 17 during the same period. Collisions increased from 80 in 2017 to 86 in 2018, an increase of 5.6%. Similarly, derailments increased from 1,263 in 2017 to 1,341 in 2018, an increase of 6.2%.

These are troubling trends and help illustrate the need for Congress and the Administration to be vigilant in pursuing policies that will improve safety, increase oversight, and codify existing industry standards that have a proven track record of success. Furthermore, as new technologies such as positive train control (PTC) are introduced and implemented across the rail network, Congress and regulators must recognize these are not panaceas, but rather must be part of a larger safety policy agenda.

We believe the following issues to be worthy of your consideration:

1. SENSIBLE CREW STAFFING STANDARDS

Without question, one of the biggest threats to railroad safety is the push to decrease the number of personnel onboard trains from two crew members down to one or none. Today, freight trains are operated safely because they have a minimum of two crew members: a federally certified conductor and a federally certified locomotive engineer. This has been standard practice for decades, and for good reason. Both conductors and engineers have a long list of responsibilities and must work together as a team to ensure safety, efficiency and compliance with federal regulations while operating freight trains that are over two miles long and often carrying hazardous materials.

Unfortunately, driven by hedge-fund investors, the railroad lobby has aggressively fought efforts to mandate two-person crews across the industry. Now the FRA has proven to be a willing partner. On May 23rd, 2019, FRA announced it is withdrawing its proposed "crew staffing rule", first introduced in 2016, that would have codified the existing industry standard of a minimum two-person crew. That proposed rule, developed under the previous administration, would have maintained existing crew staffing, but contained provisions for waiver processes to allow for single person operations provided they are implemented in a safe manner. While not perfect, this rule carefully weighed challenges to safe rail operations while also factoring in emerging technologies. The current administration simply discarded this proposal, and to make matters worse, also decided to attempt a preemption of state laws dealing with crew size minimums. Six states currently have laws on the books regulating crew size, and similar legislation is being considered in an additional 22 states. Yet with this decision, FRA is attempting to deny the rights of states to set safety standards appropriate to protect their communities, while abdicating their congressionally-mandated obligation to oversee safe railroad operations.

Proponents of the FRA's action and the FRA itself have offered several misleading or outright false justifications for the decision. For instance, the FRA noted in its announcement that there is no data to prove that one person or autonomous trains are less safe than trains that have two crew members. This may be true, but only because single person and autonomous train operations in America are virtually non-existent. Standard, two-person crew operations are the norm because they work

[1] Data is based upon official statistics of the Federal Railroad Administration's Office of Safety Analysis.

well, and they work safely. FRA's decision opens the door for the industry to experiment with different crew-staffing models with no evidence that they can maintain safety standards while doing so. This puts rail workers and our communities at risk.

Those in favor of one (or none)-crew train operations lack an understanding of the teamwork necessary for a crew to safely transport and deliver trains to their destinations. Even while operating under routine conditions, the conductor and engineer are continually interacting with one another, executing incoming directives from remote dispatching centers, monitoring track work, speed restrictions, train inspections and many more responsibilities too numerous to list here.

During an emergency, their teamwork is critical. As first responders, a member of the crew (typically the conductor) will dismount from the locomotives to assess the situation and address any life-threatening issues. The engineer will remain on board the locomotive, providing communication to dispatchers and other trains in the area, moving the train as deemed necessary by the conductor's assessment of the situation and providing security for the locomotives and train.

Emergencies on a railroad come in many variations. From derailments caused by faulty equipment or track to encounters with pedestrians and grade crossing collisions, railroad incidents are frequent and far too often result in death or severe injury to the employees and the public. As Mike Rankin, a freight rail conductor and SMART-TD member with 30 years of experience will tell you, a two-person crew saves lives. Mike was the conductor on a train that, in 2004 near Streator, Illinois, hit a car driven by three teenagers who ignored flashing flights and drove around the gates at a railway crossing. Two teenagers lost their lives that night. One survived. If it wasn't for Mike and his colleague—the train's engineer—working together, it is probable no one would have survived that night.

Here is Mike's story in his own words:

> After the collision, the engineer secured the train, while I looked for survivors. Once I got to the wreckage, I found what can only be described as grisly. All three teenagers had been ejected from the car. It was clear that two had perished. I knew there was nothing I could do to help them.
>
> I found the third passenger face down in a ditch. He was alive, but barely. Not long after I found him, firefighters pulled up to the scene. They told me an ambulance was just a few minutes away, but we soon realized the ambulance was on the wrong side of the tracks, cut off by the train from the teenager who desperately needed help.
>
> I radioed to the engineer about the situation. We agreed there was only one solution: we needed to create space between the cars of the train, so the ambulance could drive through—a maneuver that requires two people to complete. I uncoupled the train cars and the engineer pulled the front of the train forward, creating room for the ambulance to reach the crash victim. There's no way a single crew member could have secured the train, briefed emergency personnel, uncoupled train cars and moved the front of the train forward all on his or her own.
>
> Our train that night was 7,000 feet—nearly a mile and a half—long. If we hadn't been able to separate cars at that exact moment, the ambulance would have had to go miles out of its way to get to the crash victim. That would have taken far too long in a situation where time was not on our side.
>
> I tell this story not because I want praise for what the engineer and I did that night, but to explain why two qualified crew members are needed on a freight train. Conductors and engineers don't just operate trains. In emergency situations, we're first on the scene. Our presence and teamwork can mean the difference between life and death.

Supporters of FRA's action have noted that minimum crew sizes should be negotiated between railroads and their unions. This is simply an absurd assertion. While the industry can, and often does, negotiate crew size in the collective bargaining arena, such negotiations are most often in the context of work rules, adequate staffing to provide necessary time off and other non-safety related issues. Setting, maintaining and enforcing minimum safety standards is a core government responsibility, and should not be left to the collective bargaining table. It simply isn't reasonable to rely on the industry to negotiate safety when financial considerations are typically the driving force in negotiations.

The recent actions by FRA have shaken my faith in the agency's commitment to protect rail workers and the public as a safety overseer of the industry. For this reason, we are calling on Congress to step in and enact H.R. 1748, the Safe Freight Act. This bipartisan legislation, led by Rep. Don Young in the House, has 58 cosponsors and would mandate two-person crew operations. By passing this important leg-

islation, Congress would do what FRA has been unwilling to do: place the safety of workers and the general public above corporate profiteering. We urge this committee and the full House to immediately move this bill forward.

2. OVERSIGHT OF AUTONOMOUS OPERATIONS

FRA, in its announcement on May 23rd, in addition to rescinding its Notice of Proposed Rulemaking regarding crew size also made an astonishing declaration that it saw no need to regulate the development of artificial intelligence or autonomous operations in the rail industry. This is astonishing because every other mode of transportation in America is subject to regulatory oversight on the implementation of autonomous operations. Whether it be automobiles, trucking, airplanes or ships, all modes of transport are subject to regulatory oversight on this subject.

When one considers the magnitude of two-mile long trains moving hazardous materials through densely packed urban areas it is inconceivable that the industry will be allowed to self-regulate the application of artificial intelligence to such operations. We ask Congress to take immediate action to ensure that the development of artificial intelligence in the rail industry is subject to regulatory oversight to ensure the safety of my members and the American public.

3. FATIGUE—FRA MUST ENFORCE ITS PREVIOUSLY MANDATED DIRECTIVE TO ADDRESS FATIGUE ISSUES ON THE NATION'S RAILROADS

Chronic fatigue remains one of the most pressing and well-documented safety problems in the rail industry. In order to maintain around-the-clock operations, rail work inherently involves demanding and irregular work schedules. However, the unique nature of the job is not an excuse for irresponsible industry practices that consistently require rail workers to report to work when fatigued. Unpredictable work schedules, lack of notice, and long shifts can all be addressed by Congress with sensible reforms to the Hours of Service (HOS) Act.

The current HOS law mandates that covered rail employees may not work more than 12 consecutive hours and must receive 10 hours of undisturbed rest immediately following their last shift. Congress should require that railroad operating employees be given 10 hours' notice before their shift, to ensure these workers are properly rested and prepared to return to work. It is essential that rail workers have early and reliable information about the date and time they are required to report for duty. Moreover, rail workers' rest time should not be interrupted by communications from their employers. Congress must also ensure that its previous efforts to reduce fatigue among operating employees are implemented. Congress, in the Rail Safety Improvement Act of 2008, directed FRA to address the issue in several ways, including the development of standards and pilot projects to address fatigue of operating crews. Some 11 years later, FRA has not yet complied with this directive. FRA must complete its unmet and overdue RSIA mandates and promulgate a risk reduction program, which will include a fatigue management plan, and conduct pilot projects concerning the impact that shift scheduling has on a tired workforce.

4. HOURS OF SERVICE FOR YARDMASTERS

HOS laws must also be extended to include yardmasters. They, like locomotive engineers, conductors, signalmen, and dispatchers, have key safety- sensitive duties and obligations and are charged with managing nearly all activity of multiple rail yards simultaneously. In addition, rail carriers often move yardmasters into and out of HOS covered positions in an effort to circumvent rest requirements, resulting in a fatigued safety-sensitive workforce. These abuses and manipulations must end so that yardmasters can receive the rest they need to do their jobs.

5. PRECISION SCHEDULED RAILROADING

Efforts to irresponsibly reduce crew size are consistent with another troubling trend among railroad operations: operating changes often referred to as "Precision Scheduled Railroading". This name is misleading, since the goal is not better scheduling or more precision, but rather increased quarterly stock market returns.

AAR claims that they are investing $25 billion annually in capital investments. We question this number and challenge the railroad industry to substantiate the alleged capital investments. In fact, PSR efforts on all the major railroads are focusing on reduced investments and reduced service. These industry-wide cutbacks are not due to a loss of traffic or lack of profits, as first quarter 2019 net income and traffic have seen an increase compared to 2018. Railroads claim PSR is an approach to operation efficiency that focuses on cutting costs and greater asset utilization, but

in reality, it is a broader trend to reduce operating ratios and boost profits. Essentially, it is an attempt to increase quarterly profit returns by making the railroad a leaner operation and cutting costs wherever possible. And to the delight of activist investors, carriers through the implementation of PSR have reduced operating ratios from the eighties to low sixties/high fifties. *However, given the short-term, stock market-driven goals that drive PSR, these attempts at efficiency often come at the expense of workers, safety, and customers*.

From the Rail Labor perspective, the near and long-term effects of PSR have resulted in significant negative impacts to its membership. Rail workers have seen a decimated headcount, idle locomotives and equipment, shuttered shops and facilities, reduced maintenance, and curtailed service. Carriers have been able to do this by consolidating service locations and refusing to provide access/service to certain routes or rural customers where the rail carrier is their only freight transportation option. This business calculation has been transformational and has shifted the freight rail industry from a customer service-focused enterprise to a schedule-centric service with limited and specific intervals.

Carriers are certainly benefitting from a short-term financial boon as a result of PSR implementation. However, we have serious concerns about sustainability of this business model and the long-term effects on safety for the rail workforce. Our members face continued reduction in headcount, decaying physical infrastructure (due to deferred equipment maintenance), unsafe working conditions, and intrusive and intimidating management practices that cause a chilling effect in the workplace.

We also believe that the cost-cutting measures put in place through PSR are jeopardizing the safety of rail workers and the public. By cutting overhead and reducing its workforce, rail management is expecting our members to complete more work with fewer people. Workers are also required to acquiesce to management's frequent requests to bypass train maintenance work or inspections in order to get rail cars out of the yards. Our members are reporting that the rush to get trains into service has resulted in increased equipment breakdowns, on-track maintenance delays, and even derailments. The consequences of cutting corners on maintenance, inspections and other critical safety functions become even more dire given the industry-wide increase in the length/weight of trains. Quite simply, given the size of these trains, the margins for error are smaller and the potential to do harm is much greater.

In an industry already plagued by fatigue problems, PSR has also resulted in an increased reliance on overtime and excessive work schedules. Workplace injuries have increased as the reduced workforce attempts to complete work at a breakneck speed. Rail workers faces disciplinary action or retaliation from local and mid-level management for refusal to accept overtime or sign off on incomplete work. "Availability" policies have been implemented by the railroads to discourage employees from taking time off due to illness or fatigue, resulting far too often in trains being operated by employees who should be home recovering from sickness or a 7 days per week, 12 hours per day work requirement. Together with mass layoffs, this workplace environment has done serious damage to employee morale.

6. EXTRA LONG TRAINS

One aspect of Precision Scheduled Railroading is the increased reliance on extra-long trains, many of which exceed two miles in length. This creates many safety problems, mechanical and logistical, such as the inability to maintain adequate brake pipe pressure, which is needed to safely slow and stop trains. As trains lengthen, incidences of them breaking apart are far more frequent, and a crewmember cannot observe and monitor an entire two-mile-long train by looking out of the window. A conductor is required to walk a long train, often on uneven terrain and during all weather conditions. A train's two-way telemetry device and distributed locomotives often lose contact with the lead locomotive. One such incident caused a runaway train on the Union Pacific last October killing two crewmembers. And yes, the track had PTC active at the time. When a train is too long and there is a loss of communication with the rear of the train the locomotive engineer cannot activate the brakes on the rear of the train.

Most importantly, when a long train is disabled and blocks a crossing, it is far more difficult to uncouple the train to open the crossing. Such trains constantly block crossings and cause communities to endure incredible safety problems related to, among many others, hindering the movement of emergency responders. The complications and safety hazards caused by extra-long trains can no longer be ignored by Congress and federal regulators. Reasonable regulations are needed to ensure that excessive train lengths are not jeopardizing safety or needlessly disrupting communities.

7. MEXICAN TRAINS OPERATING IN THE U.S.

Beginning in July of last year, the FRA began allowing a Mexican subsidiary of Kansas City Southern Ry. (KCSR) to operate trains into the United States using crews from Mexico. This action reversed decades of precedent, in which Mexican-domiciled crews aboard trains at the Southern border switched to U.S. crews before they continued into the United States. This practice was integral to rail safety. Until very recently, Mexico lacked any kind of rail regulatory body. Mexico-based engineers and conductors clearly did not meet U.S. certification and qualifications standards, and would not be in compliance, or even be able to comply with, non-negotiable hours of service or drug and alcohol testing requirements.

Despite this, and with absolutely no public input or oversight, FRA unilaterally determined that KCSR could suddenly guarantee compliance with U.S. rail safety regulations. We reject this position. The FRA and KCSR have unequivocally failed to demonstrate that these operations can be carried out safely, which threatens both rail workers and the border communities these trains are operating through today.

We have been told that we should just accept the railroad's word that they are following all laws and regulations, as FRA currently is unable to perform any kind of inspection or oversight of Mexican rail operations. That is simply not adequate. Further, even if the railroad could demonstrate nominal compliance with rail safety law and regulation, existing loopholes like the one that allows these crews to operate 10 miles into the country without being subject to drug and alcohol testing casts further doubt on their ability to operate safely.

We thank Chairman DeFazio and the twenty-six members of the House for their leadership in signing a bipartisan letter to Secretary Chao calling for action to put a halt to this scheme. We have seen no response to that letter, and FRA continues to abdicate its safety mission on this subject.

FRA's actions are yet another example of this Administration agreeing to the rail industry's wishes at the expense of safety and railroad jobs in this country. We call on Congress to take action to ensure that railroad operations at our southern border are conducted safely.

8. ASSAULTS

Unfortunately, assaults on workers have become a common occurrence for the men and women who operate our national transportation network. Passenger rail workers have not been immune to this problem. For example, in 2017 an Amtrak employee was shot on a platform in Naperville, IL. Whether they work on transit systems, Amtrak or commuter rail systems, front line workers need assurances that they can perform their jobs without risk of being violently assaulted.

To help solve this problem, we are calling on policy makers to require passenger carriers and commuter rail operators to develop clear and concise protocols for how the railroads and workers can prevent and respond to violent situations. Protocols should include de-escalation and self-defense training for front line workers. When an assault takes place, rail operators must have a plan in place to alert law enforcement, isolate the offender, and protect fellow workers and passengers. Trains should not be allowed to continue until the incident has been resolved by law enforcement. Furthermore, should a victim of assault want to pursue criminal charges, their employer should give them the opportunity to do so without any detrimental effect to their employment status. These protocols should be jointly developed by employers and their unions and submitted for approval to the FRA.

9. POSITIVE TRAIN CONTROL

As noted above, there are several emerging technologies that, when implemented correctly and along with other policies such as mandating two-person crew operations, can improve railroad safety. PTC is the most prominent example. While we, as train operators, have been supportive of implementing PTC, we are deeply concerned that Congress and regulators view PTC as the end-all, cure-all to the rail safety problems in this country. This is certainly not the case. Even when PTC is fully implemented, it will cover less than 40% of our nation's mainline track and has several operational limitations in terms of preventing rail accidents and derailments. PTC prevents some head-on collisions and overspeed situations. However, it does not prevent rear-end collisions. It cannot cut a road crossing, spot a terrorist, back up a train, make an air test, nor can it secure a train, or safely perform a host of other things two qualified crewmembers can and do accomplish every day.

Furthermore, a complex technology such as PTC needs to carefully integrate into current rail operations to ensure a smooth implementation. To date, our operating

crews have reported terrible in-cab distractions as a result of PTC. These distractions are so prevalent that we have petitioned FRA to issue an emergency order to stop and evaluate the use of PTC, along with the so-called Trip Optimizer and Leader programs, which are auto pilot software technologies. Instead of simply slowing or stopping a train, PTC forces the already task-saturated members of the train crew to constantly interact with a computer screen, then document any variances that are outside the computer-driven parameters. These types of complications are inevitable when instituting technology that drastically changes rail operations. But these complications show that well-trained and staffed crews are necessary to realizing the full safety benefits of this technology.

10. ELECTRONICALLY CONTROLLED PNEUMATIC (ECP) BRAKES

SMART TD supports the use of ECP brakes because they are capable of slowing and stopping trains twice as fast as conventional brakes. Requiring the use of ECP brakes is one of the greatest safety advancements we can make in the railroad industry. Because of the railroads influence at FRA, the agency has refused to require ECP brakes on certain trains.

In closing, I once again thank you for the opportunity to testify before your Committee. For the safety of our members and the American public, we urge you to promptly enact the safety improvements that we have suggested.

Mr. LIPINSKI. Thank you, Mr. Previsich.

The Chair now recognizes Mr. Boles.

Mr. BOLES. Thank you, Mr. Chairman and the ranking member, for the invitation to testify. Good morning, honorable members of the subcommittee. My name is Jerry Boles, I am the president of the Brotherhood of Railroad Signalmen.

Our members are primarily responsible for the maintenance and installation of signal systems across the Nation. It is imperative to understand that the issues reflected in my testimony affect not only our members, but also the general public.

One of the most important topics affecting these groups is Positive Train Control. PTC is a much needed and overdue reality. As we move forward it is critical that those who install, monitor, and maintain PTC are properly trained on how the system works, and how to troubleshoot issues.

Recently our organization conducted a survey wherein a portion of our membership was asked about their involvement with PTC. Of the members who responded, only 21 percent believed training to be sufficient. We believe this process can be improved if our members are allowed to be significantly involved with the development of PTC training.

Training and education of our members is paramount to the safety of the public. This cannot be allowed to take a back seat to any cost-benefit analysis.

We have fought to improve safety for our members and the public through multiple measures and efforts. We work with other rail labor organizations, the FRA, the NTSB, and the railroads to ensure that our craft remains a driving force on safety issues. Our membership fears all of these things and more are at risk with the implementation of Precision Scheduled Railroading, or PSR, as it has become known throughout the industry.

We have heard from our members that maintenance positions are being abolished and reestablished with larger territories. These new territories lead to increased testing requirements on each individual, which gives them less time for regular preventive maintenance, and heightens the potential for equipment failures and signaling issues. These incidents often occur after-hours, increasing

their already extensive duties, and while they must still conform to the current Federal hours of service laws.

Even more troubling, my office has heard numerous reports that many of these incidents are being deferred by the railroads until normal working hours, in an effort to avoid overtime cost. While this may save money, we believe it compounds safety issues. Not only do these employees have to cover their regular required duties, they must now diagnose and repair the incidents that were deferred from the night or the weekend before, all in an effort to cut costs.

It is easy to see how this formula could eventually result in a catastrophe. This is a practice we cannot condone. For us, many battles were fought to achieve routine, periodic testing. Not only on signal systems, but also on highway-rail grade crossings. Now these required tests are under attack again, as talks of deregulation escalate throughout the industry.

Many people have given their lives prior to the implementation of these regulations. We do not want to return to a time that puts the public and our members in more danger. We don't have to look very far to see where self-regulation exists. Look only at the airline industry. The outcome was evident.

If left to self-regulate, the PSR operating model will do what is cheapest, and not what is safest, or in the best interests of the public or our members. It will lead to risk calculation that decides which solutions are financially justified. It will lead to elimination of manpower, and the understaffing of projects as long as it keeps costs down and dividends up. These actions could easily end in tragedy.

It is our position that this was the case in Cayce, South Carolina, when technological or supervisory safeguards were not put in place during a signal cut-over. Further, we believe when PSR dictates policy, overtime and personnel costs take precedence over sound safety decisions, and practices which often lead to dangerous shortcuts.

As we move forward, we cannot allow terms like Precision Scheduled Railroading to distract us from the numerous safety issues confronting the industry. Stock prices and dividends should never undermine the safety of our Nation's railroads. We cannot allow infrastructure to crumble while profits soar, and workforce reductions continue to overburden those who are responsible for the safety of the public.

This is the state of the rail workforce, from our perspective. I thank you for the opportunity to testify on behalf of our membership today, and certainly appreciate the opportunity to provide our perspectives to you. Thank you.

[Mr. Boles's prepared statement follows:]

Prepared Statement of Jerry C. Boles, President, Brotherhood of Railroad Signalmen

Good morning honorable members of the Railroads, Pipelines, and Hazardous Materials Subcommittee. My name is Jerry Boles, President of the Brotherhood of Railroad Signalmen. It is my privilege to testify on "The State of the Rail Workforce", from the perspective of the members of the Brotherhood of Railroad Signalmen. Our Organization is grateful for the opportunity to provide the viewpoints of our mem-

bers; we are primarily responsible for the installation and maintenance of signal systems across the nation. Your decisions and actions directly impact their daily lives and working environment.

It is imperative to understand that the issues reflected in my testimony affect not only our members but also the general public. One of the most important topics affecting these groups is Positive Train Control. As we are all aware, PTC is a much-needed and long-overdue reality in this country. As we move forward with these systems, it is critical that those who install, monitor, and maintain PTC are properly trained on how the system works and how to trouble shoot issues. Recently, our Organization conducted a survey, wherein a portion of our membership was asked about their involvement with PTC. The survey, results enclosed, asked a segment of our membership if they were involved in the maintenance or installation of the PTC system on their railroad. The survey questioned if they were trained on PTC and if they believe the training was sufficient.

Of the five largest Class I railroads (BNSF Railway, Canadian National, CSX Transportation, Norfolk Southern, and Union Pacific), roughly 73 percent of the member responses indicated that they received some PTC training, but more telling, of those who received training only 21 percent believed it to be sufficient. Further, of those responses, roughly 77 percent of the employees surveyed were involved in the maintenance of PTC systems, and their responses indicated that only 21 percent of the group believed the training to be sufficient. Additionally, the data indicates that roughly 72 percent of the employees who responded were involved with the installation of PTC and only 24 percent of this group believed the training to be sufficient. If you look at the same data gathered for the surveyed members employed by smaller railroads, roughly 67 percent of the employee responses indicated they had received some form of PTC training but only 20 percent indicated that the training was sufficient; roughly 48 percent of those members were involved in the maintenance of PTC systems but only 16 percent of that group answered that the training was sufficient. Nearly 48 percent of the employees surveyed from smaller railroads indicated that they were involved in the installation of PTC or PTC systems, and of that group only 15 percent believed the training to be sufficient. Similarly, for the employees of Class I railroads who participated in the survey, some were trained on PTC maintenance and/or installation but very few perceived this training to be sufficient. We believe this process can be improved if our organization is allowed to be significantly involved with the development and implementation of PTC training. This is an issue that must be addressed! Our members are responsible for public safety, their co-workers, the environment surrounding the railroads, and the valuable infrastructure of the railroads themselves. This information should not be overlooked or underestimated. Training and education of our members is paramount to the safety of the public; it cannot be allowed to take a back seat to any cost/benefit analysis.

As railroading has evolved, safety has always been the highest priority for the BRS. We have consistently fought to improve safety for our members and the public, through measures such as Roadway Worker Rules, Highway-Rail Grade Crossing regulations, and the Rail Safety Improvement Act of 2008 guaranteeing the installation of Positive Train Control. These are just some of the innovations we are proud, as rail labor, to have accomplished. We continually work with all rail labor organizations, the FRA, the NTSB, railroads, and many other groups to ensure that our craft remains a driving force in safety.

Unfortunately, our membership fears all of these things and more are at risk with the implementation of Precision Scheduled Railroading, or PSR as it has become known throughout the industry. It is important when discussing the concerns of our members, with regard to PSR, that we cover the daily issues of our signal workforce. We have heard from our members across the country that maintenance positions are being abolished and re-established with larger territories. These larger territories lead to increased testing requirements on each individual, less time for regular preventative maintenance, and heightened potential for equipment failures and signaling issues. These incidents often occur after hours, requiring our members to come in to work outside regularly assigned hours to trouble shoot and repair various problems. They must perform the above while conforming to the current Federal Hours of Service laws.

Under PSR, my office has heard numerous reports that many of these incidents are being deferred by the railroads until normal working hours, in an effort to avoid overtime costs. It is very easy to see the problem with this strategy, while it may save money and could possibly drive stock prices up on a short-term scale, we believe it compounds the issues previously mentioned. Not only do these maintenance employees have to cover their required routine periodic testing, support projects, and try and keep up with the regular maintenance of the equipment on their terri-

tories, they now must diagnose and repair the incidents that were deferred from the night or the weekend before . . . all in an effort to cut cost. It is easy to see how this formula could eventually result in catastrophe, but in some eyes the reward of lower costs and higher revenues outweigh the risks. Simply put, this is a practice we cannot condone.

When we ask our membership what PSR means to them, the answer is almost always the same—workforce reductions—followed by the lengthening of their maintenance territories and more work with fewer people. This thought has occurred at every railroad that has adopted this operating plan. These reductions are clearly reflected in our membership numbers, which have dropped almost seven percent since 2016. While we do not have access to membership numbers from the other railroad unions, I would speculate we are not alone in these workforce reductions. This practice is the exact opposite of what common sense should lead us to believe. With the installation of Positive Train Control, many of the railroads throughout the country have added new assets and made territories more complex, this should lead to the addition of jobs, not workforce reduction!

This operating plan has led to many other troubling issues throughout the rail industry, including calls for fewer regulations. It is well known that many people have given their lives prior to the implementation of these regulations. Do we really want to return to a time that would put the public and our members at greater risk? We do not have to look very far to see issues where self-regulation exists, simply look to the airline industry and its recent problems. For us, many battles were fought to achieve routine periodic testing of Highway-Rail Grade Crossings throughout the industry, and now these necessary tests are under attack again as talks of de-regulation escalate throughout the industry. The outcome is evident, if left to self-regulate, the PSR operating model will do what is cheapest, not what is safest or in the best interest of the public and our members. It will lead to risk calculation that decides what solutions are financially justified and which are not. It will lead to unnecessary reductions in labor to raise revenues and stock prices with little thought about the impact these actions will have on the safety of our members, their workload, and the public. It will lead to the elimination of manpower and the understaffing of projects, so long as it keeps costs down and dividends up. Usually these actions will be without consequence, but sometimes they end in tragedy. It is our position that this was the case in Cayce, South Carolina, when technological or supervisory safeguards were not put in place during a signal cutover. Further, we believe when PSR dictates policy, overtime and personnel costs take precedence over sound safety decisions and practices which often lead to dangerous shortcuts.

As we move forward, we cannot allow terms like "Precision Scheduled Railroading" to distract us from the numerous safety issues confronting the industry. Stock prices and dividends should never undermine the safety of our nation's railroads. Together, BRS, the railroads, and our government cannot allow infrastructure to crumble while profits soar and workforce reduction continue to overburden the very workers who are responsible for the safety of the public. We are not the only ones who feel this way, as PSR spreads throughout the industry facilities begin closing and the workforces dwindles with little to no concern of how these cuts affect the workers and their communities. To help emphasize this point, we have attached a letter from United States Senators Ron Wyden and Jeffrey Merkley addressed to a major US railroad outlining their concerns over recent workforce reductions and layoffs because of PSR practices. This letter documents concerns for the local economy, agricultural producers, shippers, the workforce, and their families. We whole heartedly echo these sentiments and concerns across the entire rail industry.

In our members eyes this is "the State of the Rail Workforce", and this is what it means to them when they encounter "Precision Scheduled Railroading" in the workplace.

I thank you for the opportunity to testify on behalf of our membership today and truly appreciate the opportunity to provide their perspectives to you.

2019 BRS MEMBERSHIP SURVEY—PTC TRAINING †

Involved in PTC Maintenance or Installation = True		Training	
Carrier	Responses	Yes	Sufficient
BNSF Railway Company	467	79%	32%
Union Pacific Railroad	365	70%	16%
CSX Transportation	361	65%	20%
Norfolk Southern	314	70%	12%
Canadian National	91	80%	26%
Kansas City Southern	17	82%	29%
Belt Railway of Chicago	10	60%	30%
Idaho & Sedalia	3	67%	33%
Indiana Harbor Belt	3	0%	0%
Terminal Railroad Association of St. Louis	3	33%	0%
Consolidated Rail Shared Assets	2	50%	0%
Duluth, Winnipeg & Pacific	2	100%	50%

Involved in PTC Maintenance = True		Training	
Carrier	Responses	Yes	Sufficient
BNSF Railway Company	318	79%	29%
Union Pacific Railroad	282	79%	17%
CSX Transportation	249	66%	20%
Norfolk Southern	213	69%	13%
Canadian National	63	92%	25%
Kansas City Southern	12	92%	33%
Belt Railway of Chicago	7	43%	29%
Consolidated Rail Shared Assets	2	50%	0%
Duluth, Winnipeg & Pacific	2	100%	50%

† March 4, 2019—BRS survey results for members involved in PTC installation and/or maintenance

PTC Survey Questions:

1. Please indicate your involvement with PTC: (check all that apply) [Installation] [Maintenance] [No Involvement]
2. Have you received training on PTC equipment?
3. If yes, was the training sufficient for you to properly perform your job duties pertaining to PTC?

Involved in PTC Maintenance = True		Training	
Carrier	Responses	Yes	Sufficient
Terminal Railroad Association of St. Louis	2	50%	0%
Indiana Harbor Belt	1	0%	0%
Idaho & Sedalia	0		

Involved in PTC Installation = True		Training	
Carrier	Responses	Yes	Sufficient
BNSF Railway Company	302	82%	38%
CSX Transportation	242	64%	23%
Norfolk Southern	222	73%	14%
Union Pacific Railroad	208	64%	16%
Canadian National	63	75%	27%
Kansas City Southern	10	70%	40%
Belt Railway of Chicago	7	71%	29%
Idaho & Sedalia	3	67%	33%
Terminal Railroad Association of St. Louis	3	33%	0%
Indiana Harbor Belt	2	0%	0%
Consolidated Rail Shared Assets	1	100%	0%
Duluth, Winnipeg & Pacific	0		

Mr. LIPINSKI. Thank you, Mr. Boles.

The Chair now recognizes Mr. Sandberg.

Mr. SANDBERG. Good morning, Chairman Lipinski, Ranking Member Crawford, members of the committee, and thank you for the opportunity to testify today. My name is Andrew Sandberg, I have 14 years' experience in the railroad industry. I currently serve as the assistant to the president of the International Association of Machinists District Lodge 19, the railroad district. We represent 11,000 machinists at railroads across the country.

Primarily, we maintain, repair, and overhaul locomotives and track maintenance equipment. I am speaking to you today about a massive operational change currently upending the railroad industry, threatening jobs, health, and safety of our members. That change is called Precision Scheduled Railroading, or PSR, for short.

PSR is not safe or effective, as it is currently being implemented, and we believe that Congress and the FRA should exercise their oversight to investigate this. To be clear, our union supports efforts to efficiently operate the Nation's railroads. We want the carriers

to be profitable, as the profits lead to good raises and benefits for our members. However, we are concerned that the current PSR schemes are detrimental to the long-term outlook of the rail industry, putting short-term gains ahead of long-term success, furloughing thousands, while degrading safety.

In practice, PSR includes running longer trains on the strictest of schedules, pressuring customers to alter their operations to meet the railroad's schedule, forcing employees to meet strict deadlines at all costs, and reducing head counts to meet Wall Street's expectations to the point that each operation cannot function without forcing our members to work overtime.

A few weeks ago we coordinated with the Transportation Communications Union to conduct a survey of our members, and allow them to tell us how Precision Scheduled Railroading is affecting them. The responses are eye-opening. Our members report being overworked, stressed, and scared. They talk of drastic cuts to their shops, and those remaining are being asked to perform double or triple the work, compared to before. They speak of increased safety violations, of managers threatening job cuts if deadlines are not met, of being forced to ignore basic safety procedures.

A carman from Union Pacific—and I quote—"The current culture at UP is one of production first, safety last. It isn't just the safety of employees at stake; it is also the safety of communities our trains move through. UP has reduced the employment levels to a number that cannot sustain thorough safety inspections . . . Everyone is scared to do their job right. If you try to, you get told they will shut your location down, just like they did Hinkle, Oregon . . . With the PSR atmosphere, it is just a matter of time before lives are lost."

This carman was referring to a recent layoff of almost 200 workers at the Hinkle Rail Yard, which included approximately 75 machinists. Likewise, a machinist from CSX reports being rushed to perform train inspections: "Right now, it's pretty much 'do what you are told, look the other way' . . . Managers telling employees, 'you get hurt, you will not have a job here any more.'"

These are just a couple of the the 160 responses we received thus far. For additional responses, please review our full testimony.

As part of the survey we asked our members to rate overall safety on a scale of 1 to 10 before and after PSR implementation. Before PSR, rail safety received an average score of 6.9. After PSR implementation, rail safety received an average score of 2.6.

Finally, I suspect that industry representatives will point to data that cites how safety trends are improving. Unfortunately, the data they reference are incomplete. The data sets are incomplete because it is clear to us, judging by the survey responses, that not all safety incidents are being reported. Indeed, our members and union officers report an atmosphere of hostility towards reporting any safety violations, whatsoever.

As one of my colleagues stated to me after attending a local lodge meeting last week, "The way these guys talk is as if the FRA is nonexistent." We must do better.

Thank you for allowing me to testify today. I look forward to answering your questions.

[Mr. Sandberg's prepared statement follows:]

Prepared Statement of Andrew W. Sandberg, Assistant to the President, International Association of Machinists District Lodge 19

Good morning Chairman Lipinski, Ranking Member Crawford, members of the committee, and thank you for the opportunity to testify today.

My name is Andrew Sandberg. I have 14 years of experience on the railroad and am currently serving as Assistant to the President of the International Association of Machinists District Lodge 19, the "railroad district."

District 19 represents 11,000 active machinists across the country, at every Class 1, commuter railroad, Amtrak, and others. Our members primarily maintain and repair locomotives and track maintenance equipment both in shops and on the line of road. We also perform complete overhauls of locomotives and many assemblies and sub-assemblies used in all aspects of railroading.

Our union's primary focus is to keep our members safe on the job, and ensure they receive fair wages and benefits for the work they perform. That is why I am speaking with you today. A massive operational change is currently upending the railroad industry—threatening the jobs, health, and safety of our members. It is also significantly impacting the massive freight network they help operate. That operational change is called "Precision Scheduled Railroading"—or PSR, for short.

PSR, as currently being implemented, is not safe or effective, and Congress should exercise its oversight to investigate. Rail Labor would like to participate in that investigation.

Our union supports efforts to efficiently operate our nation's railroads. We want our employers to be profitable—as profits leads to raises and quality benefits for our members. However, we are concerned that current PSR schemes are detrimental to the long-term outlook of the rail industry, putting short-term gains ahead of long-term success—furloughing thousands, while degrading safety.

PSR schemes are designed to increase short-term profits for shareholders, at any cost. Indeed, what was once scorned by industry professionals and executives, is now being forced on the industry by rent-seeking Wall Street investors. In practice, PSR includes:

1. Running trains on the strictest of schedules.
2. Running longer trains—sometimes in excess of 3 miles.
3. Pressuring customers to alter their operations to meet the railroad's schedule.
4. Pressuring employees to meet new strict deadlines—at all costs.
5. Reducing headcounts as a variable to meet Wall Street's expectations.

As a union representing railroad workers, our main concerns are with the last two points I mentioned: meeting strict deadlines at all costs, and reducing headcounts to deliver savings benefits to shareholders.

A few weeks ago, District Lodge 19 coordinated with the Transportation Communications Union to conduct a survey of our members, allowing them to tell us—anonymously if they prefer—how PSR is affecting them.

The responses are eye-opening.

Our members report being overworked, stressed, and scared.

They talk of drastic cuts to their shops, where those remaining are being asked to perform double or triple the work compared to the pre-PSR era.

They speak of increasing safety violations, of managers threatening job cuts if deadlines aren't met, of being forced to ignore basic safety procedures.

To quote a carman from Union Pacific:

> "The current culture at U.P. is one of production first, safety last. It isn't just the safety of employees at stake; it is also the safety of communities our trains move through.
>
> UP has reduced the employment levels to a number that cannot sustain thorough safety inspections . . .
>
> Everyone is scared to do their job right. If you try, you get told they will shut your location down, just like they did Hinkle, Oregon . . . With the PSR atmosphere, it is just a matter of time before lives are lost."

This carman was referring to the recent layoff of almost 200 workers at the Hinkle rail yard, which included nearly 75 machinists.

Likewise, a machinist from CSX reports how he is being rushed when it comes to inspection of trains and equipment:

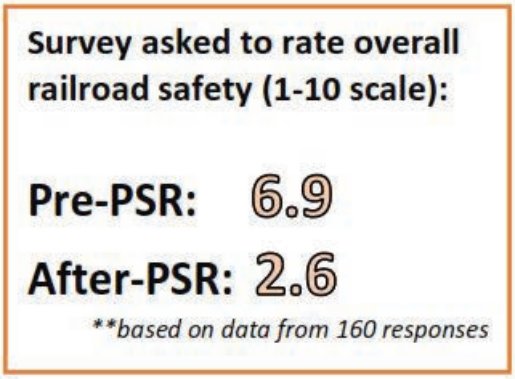
> "Right now, it's pretty much 'do what you are told, look the other way' . . . Managers telling employees 'You get hurt, you will not have a job here anymore.'"

These are just a couple of the over-160 responses we've received. For additional substantive written responses, please review the full table of selected survey responses attached.

As part of the survey, we asked our members to rate overall safety, on a scale of 1–10, before and after PSR implementation.

Before PSR, rail safety received an average score of 6.9. After PSR implementation, overall rail safety received an average score of 2.6.

Finally, I suspect industry representatives will point to data that cites how safety trends are improving. Unfortunately, the data sets they reference are incomplete.



Judging by the responses our union has received in the survey, as well as local lodge meetings our representatives have attended, the atmosphere on the railroad is increasingly one of hostility towards reporting any safety violations whatsoever. As one of my colleagues stated to me after attending a four-hour local lodge meeting last week: "the way these guys talk, it's as if the FRA is nonexistent."

In addition, if safety trends are looked at by employer—instead of industry-wide—you will find further evidence that railroads engaging in PSR schemes have higher rates of reportable safety incidents.

To bolster this claim, I submit the attached safety performance summary from Union Pacific for March, 2019 where reportable personal injuries are up nearly 50%, depending on the month.

A Jacksonville Business Journal from 2018—aptly titled "As CSX workforce shrinks, accidents pile up and morale plummets"—stated the following:

> . . . The company's increasing rate of accidents comes despite the fact that the rate of train accidents for all Class I railroads nationwide is decreasing. Since 2013, the national rate has decreased about 6 percent, while CSX's rate has increased 59 percent . . .

As a labor union, we do not have the resources nor the access to data and logs that our members' employers might have. All we have is what our members tell us. And, as you will read from our members' responses, these safety incidents appear to be increasing, and the culture of safety on the railroads is eroding.

Congress and the Federal Railroad Administration must apply greater scrutiny to these Precision Scheduled Railroading practices: a business model loathed by workers, railroads, customers, and communities—all to enrich rent-seeking Wall Street investors, no matter the cost or disruption to the lives of our members, and the commercial transportation market they'll destroy in the process.

Thank you for the opportunity to testify.

The following attachments are submitted as part of the full written testimony [the attachments are retained in the committee files]:

- Selected responses to "Worker Impacts of Precision Scheduled Railroading" survey—June, 2019 (ongoing)
- "March 2019 Safety Performance Summary," Union Pacific Railroad
- Robinson, Will. "As CSX Workforce Shrinks, Accidents Pile up and Morale Plummets." Jacksonville Business Journal, February 14, 2018. https://www.bizjournals.com/jacksonville/news/2018/02/14/as-csx-workforce-shrinks-accidents-pile-up-and.html.

Mr. LIPINSKI. Thank you, Mr. Sandberg.

I will recognize Mr. Gonzalez.

Mr. GONZALEZ. Good afternoon, Chairman Lipinski, Ranking Member Crawford, and members of the committee. Thank you for holding this important hearing, and for inviting me here today to discuss the proposed 20-percent national reduction to the Amtrak Police Department. I am truly honored for this opportunity to speak on the important subject of great concern for the American public and its transportation infrastructure. More specifically, the millions of Americans that ride on Amtrak trains every year, as well as the thousands of dedicated Amtrak employees.

I, as well as my fellow officers, believe this to be a matter that has the potential to substantially impact our Nation's security and safety. My name is William Gonzalez, I am the president of the Amtrak Labor Committee, and the Labor Committee is the duly ecognized union for the 400-plus brave and distinguished members of the Amtrak Police Department.

Amtrak police are responsible for protecting over 300 daily trains, covering 21,000 route miles in 46 States. The Amtrak system is critical to our Nation's economy and mobility. Despite Amtrak's substantial network and recent ridership records, the current police force is currently comprised of only approximately 440 positions, which includes the commander's.

When you deduct the management, the total working police force is comprised of approximately 424 actual patrolmen, which is down from the 492 patrol officers Amtrak employed as recently as 2015: about a 14-percent loss over only 4 years. The matter most concerning to us, which is the matter bringing us before you today, is Amtrak CEO Richard Anderson's proposal to further reduce the number of sworn police officers by another 20 percent or, more specifically, reduce the department by 85 sworn officers and 15 civilian employees.

This news prompted multiple questions by the committee, which, as of today, go entirely unanswered by Amtrak. This reduction will result in police force staffing levels not seen since before 9/11. The reduction in associated hours totals approximately 208,000 per year of lost police protection.

If cost cutting was a legitimate concern of department management, why did it needlessly purchase brandnew 9mm handguns this year, when it had already purchased new .40 caliber handguns no more than 3 years ago? The department also wastefully purchased new body cameras for the police department that has only been required to use force on an average of .9 percent of arrests within the past 4 years, along with expensive nonlethal weapons such as tasers, that have only been used less than a handful of times. Those monies would have been much better spent on repairing and updating a flawed and malfunctioning radio system, which would substantially facilitate interofficer and department communications. Amtrak, as a corporation, has, simply put, been more concerned with appearances than practical law enforcement and the safety of its passengers.

Some recent facts. On March 20th of 2019, Union Station in Chicago was without radio reception for 5 hours. This issue has been ongoing for years. Eight days later, in Sunnyside, New York, a shooting occurred that the one officer assigned was able to respond

to quickly, but there were not enough vehicles at Penn Station for other officers from Amtrak to respond in a timely manner, which required assistance from the NYPD, who are not familiar with the yard.

On April 16, 2019, 18 pounds of fentanyl were seized in New Mexico off an Amtrak train.

And May 20, 2019, in New York, Amtrak police and DEA seized two kilograms of heroin and two kilograms of fentanyl.

In 2015 Amtrak Police Chief Polly Hanson commissioned an independent workforce study completed by Strategic Policy Partnership. The summary of the report stated—and I quote—"It is also important to note that APD is currently lacking across all regions in actual strength, according to the analysis of the most recent figures available to the project team. This underscores the importance of streamlining the hiring processes."

Amtrak's plan will shut down police field offices on the Northeast Corridor, and possibly around the country. This plan will leave stations, trains, and facilities with less than skeleton staffing. The Amtrak community will be left at risk, while placing officers in harmful situations.

CEO Richard Anderson's police reduction also concerns us for our members' sake, as well. The numbers shown to us on May 1, 2019, reduces most of Amtrak's police divisions. However, some will be reduced by almost 50 percent in order to reach Anderson's projected goals. Chief Trugman assured the Labor Committee there would be zero layoffs and furloughs. Amtrak's plan is to reduce police force through attrition and a buyout. We don't believe these numbers are attainable.

Also concerning, if the attrition plan is unsuccessful, will there be enough transferable positions? How do they plan to reach their reduction goals? We continue to patiently wait for these answers from Amtrak with no response.

Also a major concern is will Amtrak claim that there isn't enough in their budget for the police department, and just make the department disappear?

In closing, reducing this police force for any reason is perplexing. We believe Amtrak has a duty to protect its over 30 million passengers and the communities it serves, as well as the communities it travels through. It is essential that Amtrak provides a sufficient police force to ensure these responsibilities to the American public.

Again, on behalf of the Amtrak Labor Committee I would like to thank the committee staffers and members of this committee. And thank you for your service to our Nation.

[Mr. Gonzalez's prepared statement follows:]

Prepared Statement of William Gonzalez, President, Amtrak Police Labor Committee

Good morning, Chairman Lipinski, Ranking Member Crawford and Members of the Committee, thank you for holding this important hearing and for inviting me here today to discuss the proposed twenty percent national reduction to the Amtrak Police Department. I am humbled and truly honored for this opportunity to speak on this important subject of great concern for the American public and its transportation infrastructure, most specifically the millions of Americans that ride on Amtrak trains every year, as well as the thousands of dedicated Amtrak employees. In-

deed, I, as well as my fellow officers, believe this to be a matter that has the potential to substantially impact on our nation's security and safety.

My name is William Gonzalez, and I am the President of the Amtrak Police Labor Committee. The Labor Committee is the duly recognized union for the 400 plus brave and distinguished members of the Amtrak Police Department. The Amtrak Police Labor Committee is an organization of sworn law enforcement officers, elected to represent its members, which includes communication officers, better known to the public as dispatchers, as well as the security guards who, among other things, are responsible for securing Amtrak's rail yards. We are the voice for the men and women who dedicate their lives to protect and serve Amtrak's passengers, employees and infrastructure, better known to us as the Amtrak community. We are committed to improving the working conditions for our officers, as well as the safety and security of those we serve. We strive to accomplish this through education, legislation, information, community involvement, employee representation and most importantly, good and practical law enforcement strategy and techniques. No one knows the dangers and the difficulties faced by today's Amtrak officers better than another law enforcement officer, and no one knows Amtrak's officers better than the Labor Committee.

The Amtrak Police Department is comprised of six divisions spread out across the country, New England, New York, Mid Atlantic North, Mid Atlantic South, Central, and Western.

Daily the men and women of the Amtrak Police manage to accomplish a lot with only very little, and usually with a smile. Policing in the Amtrak community is unique and incomparable to any other police force in these United States and perhaps even the world. We wear many hats of myriad shapes and sizes. Amtrak Police Officers sometimes act as customer service agents helping passengers with questions and concerns. Sometimes we are called upon to perform similarly to municipal and transit police, enforcing traffic laws, and making a multitude of arrests on and off trains, in rail yards and right of ways. Our officers respond to and investigate felony and misdemeanor crimes and handle fatalities on a frequent basis. Other times the Department acts as a force protection, comparable to departments like the US capitol police, FBI uniform and Secret Service Uniform, to mention a few. We have officers who serve on anti-terrorism teams, as well as others who serve on a multitude of Federal task force, including the FBI's joint terrorism task force and DEA task force, among others. We also have one of the nation's largest K9 divisions per capita, with a concentration on explosive detection and narcotic K9s. The Amtrak police truly accomplish what no other police force would be able to do. With our multi-jurisdictional commissions and vast knowledge of the railroad, our officers are able to keep Amtrak running on time and in a safe and efficient manner. As officers we consider our multi-faceted usefulness to be one of our most defining characteristics as a police department.

On May 1, 2019, the Amtrak Police Labor Committee (FOP) was informed by Chief Neil Trugman that CEO Richard Anderson wanted a 20% reduction of our police force. Chief Trugman explained that the 454 APD personnel which is a mix of officers and civilians needed to be reduced to 369, with no budget information given. The Department is currently authorized 460 sworn positions by Amtrak. This is already down from the 492 sworn positions in 2015, a 7% reduction. Today the Police Department is securing Amtrak with 424 assigned police officers not 454 that was relayed to us on May 1. From 2015 to 2022 the Amtrak Police Department will be down 25% under Richard Anderson's current plan. This is all driven by Richard Anderson's Project Zero initiative. He, along with other Amtrak officials, stands to collect large bonuses with the current cuts at Amtrak. With Amtrak receiving tax payer's dollars, the CEO stands to profit by risking the safety and security of the traveling public.

If cost-cutting were the legitimate concern of departmental management, why did it needlessly purchase brand new 9mm handguns this year when it had already purchased new .40 caliber handguns no more than three years ago. The department also wastefully purchased new body cameras for a police department that has only been required to use force on an average of 0.9% of arrests within the past four years, along with expensive, non-lethal weapons such as tasers that have only been used less than a handful of times. Those monies would have been much better spent on hiring more officers and repairing and updating our flawed and malfunctioning radio system, which would substantially facilitate inter-officer and departmental communications. Amtrak as a corporation has, simply put, been more concerned with appearances than practical law enforcement and the safety of its passengers.

The Police Department's vehicles were cut by 20% in 2018 limiting the ability of officers to respond to outlying stations and incidents on the railroad right of way. An example of how the vehicle cuts are affecting the police, on March 28, 2019 at

Sunnyside NY an employee involved shooting occurred and the one officer assigned to work 192 acres was lucky enough to have been reporting early to work was able to respond quickly and take over the scene, but there were not enough vehicles for other officers to arrive from NY Penn Station which is 5.6 miles away and with New York City traffic the response time is 30–45 minutes. The officer required assistance from the NYPD, who are not familiar with the yard.

Some more recent facts, on March 20, 2019 Union Station in Chicago was without radio reception for five (5) hours, this issue has been ongoing for years. On April 13, 2019 the radio system in Chicago again failed for an hour and a half (1.5).

The narcotics issues on Amtrak trains has been an issue for years. On April 16, 2019, 18 pounds of FENTANYL were seized in New Mexico off an Amtrak train and May 20, 2019 in NY, APD and DEA seized 2 kilograms of heroin and 2 kilograms of FENTANYL. These are just two example dates, Amtrak Police seize hundreds of pounds of narcotics monthly.

In 2015, former Amtrak Police Chief Polly Hanson commissioned an independent workforce study completed by Strategic Policy Partnership, LLC. During this period Amtrak Police Staffing levels were at 492 personnel. The summary of the one hundred and twenty one page report states, and I quote "it is also important to note that APD is currently lacking across all regions in actual strength, according to the analysis of the most recent figures available to the project team. This underscores the importance of streamlining hiring processes" end quote.

The study goes onto say, and I again quote "All divisions appear to be lacking sufficient staffing in either Police Officers or Sergeants presently, and the majority are lacking Sergeants in terms of authorized strength." end quote. Since this study was completed several years ago, ridership has increased, trains have been added to schedules and police staffing has nonetheless been reduced. That being said, and our nature as police officers for fact finding, the Labor Committee hired former Amtrak Police Chief Ron Frazier and current President of Countermeasures Assessment and Security Experts, LLC to expedite a current workforce study.

Amtrak's plan will shut down Police Field offices on the Northeast corridor and possibly around the country. This plan will leave stations, trains and facilities with less than skeleton staffing. The Amtrak community will be left at risk while placing officers in harmful situations.

This body appropriates billions of dollars annually to ensure the safety and security of our nation's airports. Yet the funding received by Amtrak to help support and facilitate its security pales in comparison yet sees as much if not more foot traffic than this nation's busiest airports. On a daily basis New York Penn station sees more passengers than LaGuardia, JFK, and Newark airport combined. Airport security is strong and well funded, however train stations deal with felony and misdemeanor crimes, increasing mental health issues, and threats of terror.

Al Qaeda's Inspire magazine released a well edited how-to video on derailing passenger trains. Passenger rail remains a level two threat assessment according to the FBI, majorly concerning when our CEO is looking for pre-9/11 staffing levels.

CEO Richard Anderson's Police reduction also concerns us for our members sake as well. The numbers shown to us on May 1, 2019 reduce all of Amtrak's Police divisions. However, some will be reduced by almost 50% in order to reach Anderson's projected goals. Chief Trugman assured the labor committee there would be zero layoffs or furloughs. Amtrak plans to reduce the police force through attrition and a buyout plan. We don't believe these numbers are attainable. Talking with our members we've learned the majority of officers taking the buyout are officers who were going to retire inevitably.

The second step will be to offer Officers the ability to transfer, again our officers took these jobs with the belief they would retire from the same geo-location they hired on at. Member discussions have shown few if any will transfer.

Also concerning, if the attrition plan is unsuccessful will there be enough of transferable positions? With this, we don't believe the reduction goal will be reached. This labor committee has asked for answers. How do they plan to reach their reduction goals, we continue to patiently wait for those answers from Amtrak. Also, a major concern is, will Amtrak claim that there isn't a budget for the police department and make jobs disappear?

ln closing, reducing this police force for any reason is perplexing. We believe Amtrak has a duty to protect its over 30 million passengers and the communities it serves as well as the communities it travels through. It is essential that Amtrak provides a sufficient police force to ensure these responsibilities to the American public.

Again on behalf of the Amtrak Labor Committee I'd like to thank the committee staffers, members of this committee, Ranking Member Crawford, and Chairman Lipinski for inviting us here today and allowing us to present our concerns. We are

undoubtedly humbled and thank you for your service to our nation. At this time, I would be happy to answer any questions.

Mr. LIPINSKI. Thank you, Mr. Gonzalez.

And finally, the Chair will recognize Mr. Jefferies.

Mr. JEFFERIES. Chairman Lipinski, Ranking Member Crawford, members of the committee, thank you for the opportunity to be here today representing the best freight rail system in the world.

Every day, freight railroads and their 165,000 dedicated employees safely and efficiently move our Nation's economy. America's freight railroads operate almost exclusively on infrastructure that they own, build, and maintain. Railroading is an incredibly capital-intensive industry, but railroads are up to the task, as they spent an average of $480 million in private dollars on their network in recent years. In 2019, railroads will plow another $25 billion in private capital back into their network. The result is a freight rail industry that is in the best shape of its 150-year history.

Railroads are proud of their highly skilled, well-trained employee base, and are united with them in their unwavering dedication to operating the Nation's rail system at the highest level of safety. The industry attracts employees who build lifelong careers from a diverse range of backgrounds, from high school graduates to those holding graduate degrees.

We also place a strong focus on hiring those with military service, which has accounted for approximately 20 percent of new hires in recent years. Eighty-five percent of Class I railroad employees and 60 percent of smaller railroads are represented by more than a dozen labor unions, many of which are represented here today, and are governed by the Railway Labor Act, or the RLA.

RLA, first passed in 1926, has been a remarkably successful framework in negotiating agreements. Over the past 45 years there have only been 10 days of service disruptions arising from national rail bargaining. The last such day was in 1992.

As a whole, the approximately 145,000 represented freight railroad employees are among the most highly compensated among American industries. In 2017 railroad employees earned an average of $125,400 in annual wages and benefits, far surpassing the national average of $76,500 in other domestic industries.

Rail healthcare benefits also surpass coverage provided by other industries, with freight railroads providing approximately 90 percent of an employee's healthcare costs. Like every industry, the overall number of rail employees tends to ebb and flow over time. For railroads, this is based on a variety of factors, but most largely dependent on current and anticipated rail traffic demand.

Freight railroads and their employees have a safety culture that is second to none, and the industry is constantly looking for new ways to further their strong safety performance. The evidence of this dedication is clear: the train accident rate in 2018 was down 36 percent from the year 2000, and the employee injury rate in 2018 was the second lowest in history, down 48 percent from that of 2000.

By all measures, recent years have been the safest in the industry's long history. Railroads today have lower employee injury rates than most other major industries, including trucking, airlines, agriculture, and construction. But railroads want to be safer, and con-

tinue to research and implement new safety-enhancing technologies and solutions.

Members of this committee are well acquainted with Positive Train Control. And after meeting all of the 2018 mandates, Class I railroads currently have 89 percent of required PTC route miles in operation, and will be fully implemented next year.

Railroads are also deploying a host of new inspection and detection technologies across their networks that allow for significantly more advanced assessments of rail, track, and locomotive health. To drive safety to new levels, railroads must be allowed to innovate and be provided flexibility for demonstrating newer, more effective ways of meeting current regulatory requirements.

In sum, as America's economy grows, the need to move more freight will grow, too. Railroads and their employees must work together to innovate and evolve to maximize and maintain competitiveness to meet these growing demands. Indeed, today's railroads look and operate differently than they did 50 years ago. They are dramatically safer, cleaner, and more efficient.

In turn, the railroads of tomorrow will look and operate differently than they do today. Railroads will continue to rely on the skills and dedication of their employees for years to come. And together, we will continue these positive safety trends to new heights into the future.

Thank you for your time.

[Mr. Jefferies's prepared statement follows:]

Prepared Statement of Ian Jefferies, President and Chief Executive Officer, Association of American Railroads

INTRODUCTION

On behalf of the members of the Association of American Railroads (AAR), thank you for the opportunity to be here today.

From one end of the country to the other, America is connected by the best freight rail system in the world. The seven large "Class I" railroads, working with more than 600 smaller railroads, approximately 165,000 railroad employees, and tens of thousands of rail customers, deliver economic growth, support job creation, and provide crucial environmental benefits such as reduced highway gridlock and cleaner air.

The U.S. Freight Railroad Industry in 2017

Type of Railroad	Number	Miles Operated*	Employees	Revenue ($ billions)
Class I	7	93,058	147,537	$70.0
Non-Class I	607	44,030	19,710	$4.0
Total	614	137,088	167,247	$74.0

*Excludes trackage rights. Source: AAR

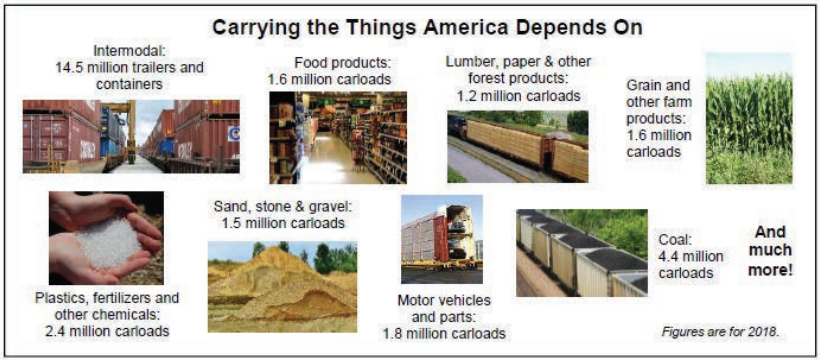
America's freight railroads are overwhelmingly privately owned and operate almost exclusively on infrastructure that they own, build, maintain, and pay for themselves. Since 1980, freight railroads have plowed more than $685 billion—of their own funds, not taxpayer funds—on capital expenditures, technology, and maintenance expenses related to locomotives, freight cars, tracks, bridges, tunnels and other infrastructure and equipment. That's more than 40 cents out of every revenue dollar, invested back into a rail network that keeps our economy moving safely. For context, the average U.S. manufacturer historically spends about three percent of

revenue on capital expenditures. The comparable figure for U.S. freight railroads in recent years has been about 19 percent, or six times higher. And importantly, these investments have improved rail safety, since a railroad that is in good physical condition is a railroad that is safer. In fact, for many of these investments, improving safety is the primary reason the investments were made.

Railroads are also the environmentally responsible way to move freight. In 2018, railroads moved a ton of freight an average of 473 miles per gallon of diesel fuel. That's roughly equivalent to moving a ton from Chicago, IL to Omaha, NE, or from Little Rock, AR to Austin, TX on a single gallon. On average, railroads are approximately four times more fuel efficient than trucks. That means moving freight by rail helps our environment by reducing energy consumption and greenhouse gases. Moreover, because a single train can carry the freight of several hundred trucks, railroads cut highway gridlock and reduce the high costs of highway construction and maintenance.

TRANSPORTING WHAT OUR NATION NEEDS

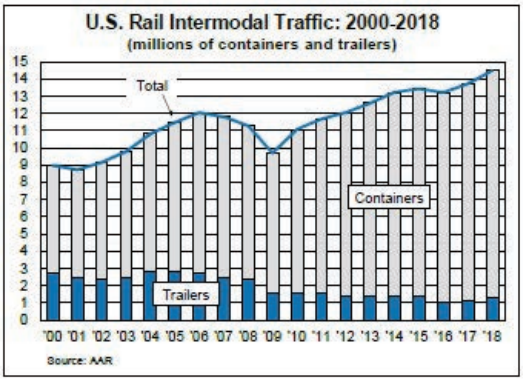
From the food on our tables to the cars we drive to the shoes on our children's feet, freight railroads carry the things America needs.



Railroads carry enormous amounts of corn, wheat, soybeans, and other grains; fertilizers, plastic resins, and a vast array of other chemicals; cement, sand, and crushed stone to build our highways; lumber and drywall to build our homes; autos

and auto parts; animal feed, canned goods, corn syrup, flour, frozen chickens, beer, and countless other food products; steel and other metal products; coal, crude oil and other petroleum products; paper products; iron ore and scrap metal for steelmaking; and much more.

Rail intermodal is the movement of shipping containers and truck trailers by rail. It's been the fastest growing major rail traffic segment over the past 25 years and set a new annual volume record in 2018. Just about everything you find on a retailer's shelves may have traveled on an intermodal train. Around half of rail intermodal consists of imports or exports.



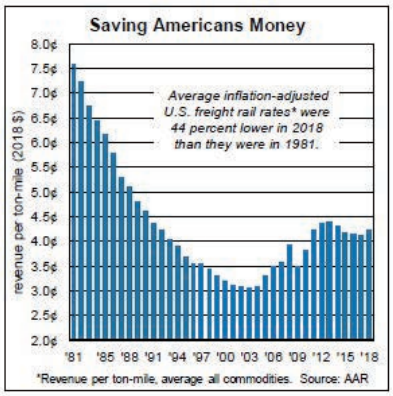
THE RIGHT TRACK FOR THE ECONOMY

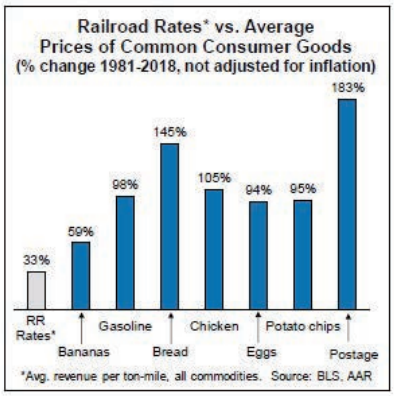
America's freight railroads connect producers and consumers across the country and the world, expanding existing markets and opening new ones.

An October 2018 study from Towson University's Regional Economic Studies Institute found that, in 2017 alone, the operations and capital investment of America's major freight railroads supported approximately 1.1 million jobs (nearly eight jobs for every railroad job), $219 billion in economic output, and $71 billion in wages. Railroads also generated nearly $26 billion in tax revenues. In addition, millions of Americans work in industries that are more competitive in the tough global economy thanks to the affordability and productivity of America's freight railroads.

Without railroads, American firms and consumers would be unable to participate in the global economy anywhere near as fully as they do today. The AAR estimates that international trade accounts for approximately 35 percent of U.S. rail revenue, 27 percent of U.S. rail tonnage, and 42 percent of the carloads and intermodal units that U.S. railroads carry.

The affordability of freight rail saves rail customers (and, ultimately, American consumers) billions of dollars each year and enhances the global competitiveness of U.S. products. Average rail rates (measured by inflation-adjusted revenue per ton-mile) were 44 percent lower in 2018 than in 1981. This means the average rail shipper can move close to twice as much freight for about the same price it paid more than 35 years ago.





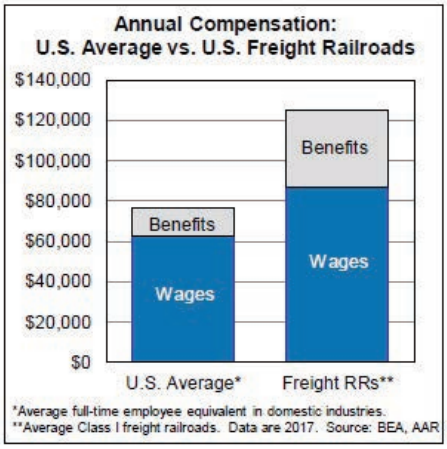
RAILROAD EMPLOYEES: SAFE, PROFESSIONAL, PRODUCTIVE, AND HIGHLY COMPENSATED

Railroads appreciate the skill and professionalism of their employees, and railroads are committed to working with them to help ensure that the future of railroads remains bright. Rail management and rail employees are united in their conviction that a safe and healthy working environment creates a safe and efficient railroad, which is indispensable to America's economic well-being.

As one of the country's oldest industries, nearly every facet of the rail industry management-employee interface is governed by unique legal and regulatory schemes that have been developed over the last 130 years. More than a dozen labor unions have rail industry employees as members. Approximately 85 percent of the employees of Class I railroads and around 60 percent of employees of non-Class I railroads belong to a labor union and therefore are subject to collective bargaining.

Collective bargaining between freight railroads and their employees is governed by the Railway Labor Act (RLA), which was first passed in 1926 and amended occasionally since then. Under the RLA, collective bargaining agreements are amendable rather than expire. Without contract expiration dates, the negotiators don't work against a fixed deadline. Rather, they proceed through a structured and regulated process, which may include compulsory mediation and other third-party resources, designed to bring the parties to agreement without service disruptions.

Under the RLA, national freight rail bargaining has been remarkably successful in reaching contract settlements without crippling strikes or lockouts. Over the past 45 years, there have been only ten days of service disruptions arising from national rail bargaining; the last such day was in 1992.



As a whole, the approximately 145,000 represented freight railroad employees are among America's most highly compensated workers. Railroad employees' healthcare, retirement, and compensation packages rank in the top five percent of American industries. In 2017 (the most recent year for which comparable data are available), the average U.S. Class I freight railroad employee earned wages of $87,100 and fringe benefits of $38,300, for total average compensation of $125,400. By contrast, the average wage per full-time equivalent U.S. employee in domestic industries in 2017 was $62,100, just 71 percent of the rail average, while average total compensation was $76,500, or just 61 percent of the rail average. Rail healthcare benefits far surpass coverage provided by other U.S. industries, with freight rail employees paying only modest monthly contributions for a plan that, on average, covers over 90 percent of a member's healthcare costs. The richness of these healthcare benefits is evident in the plan's Platinum level status, the highest-ranked tier under the Affordable Care Act.

In addition, Class I railroads can be statutorily required to provide their workers who are displaced by mergers, consolidations, or certain other operational changes with up to six years of labor protection, including continued wages and benefits at pre-transaction levels. No other major U.S. industry is subject to this kind of government mandate.

Employees of freight railroads—as well as employees of Amtrak, commuter railroads, and rail-related organizations such as rail labor unions and the AAR—are the only sizable group of private sector workers in the United States not covered by Social Security. Rather, they are covered by the Railroad Retirement System, which is administered by the Railroad Retirement Board (an independent federal agency) and provides retirement, disability, sickness, and survivor benefits to railroad workers and their families.

A detailed discussion of the ways that Railroad Retirement differs from Social Security is beyond the scope of this testimony, but one of the key differences is that Railroad Retirement's assets are invested in a diversified portfolio of equities and debt, in addition to government securities, in the same manner as those of private sector retirement plans. Should the investments lose money or the trust funds fail to keep pace with benefit distributions, railroad companies and employees—not taxpayers—are responsible for ensuring the solvency of the railroad retirement system. And beyond this investment risk, railroads currently pay—over and above the equivalent social security payroll tax—an additional 13.1 percent in payroll tax on each employee's first $98,700 in annual earnings.

Railroads do not have insurance-based Workman's Compensation because their system was developed long before modern workman's compensation was established; instead, railroads operate under a nearly 110-year old statute called the Federal Employee Liability Act (FELA). FELA is a tort-based system that requires employees to litigate injury claims against railroads under a comparative fault system.

Finally, railroads know well that having a diverse workforce promotes greater innovation and productivity by leveraging the strengths of different talents, skills, and perceptions. As the railroads continue to invest, innovate, and evolve, they will also continue to expand their efforts to make working in the industry appealing to men and women of every background and range of personal characteristics. The industry attracts employees from a wide range of backgrounds, including those who are high school graduates and those holding graduate degrees. Railroads provide the opportunity to build lifelong careers in traditional railroading fields such as engineering and dispatching, but also new and innovative fields like information technology and cybersecurity. And many of the nation's freight railroads have special military recruiting programs to assist veterans in their railroad job search. Railroads provide career opportunities that allow veterans to smoothly transition from military service to private employment.

Because of high wages and benefits, technical training, and professional growth opportunities, freight rail employees often stay in the industry for most or all of their professional careers. Many rail employees have family railroad legacies that stretch back generations.

Like firms in every other industry, railroads must manage their resources—including their most important resources, their employees—based on business needs. The number of rail employees tends to ebb and flow based on current and expected future rail traffic levels, technological developments, and other factors.

SAFETY IS THE PRIORITY

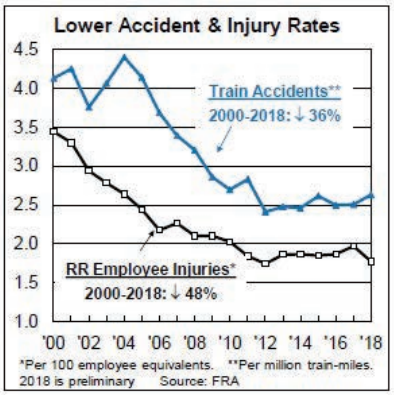
Freight railroad employees have a safety culuture that is second to none and their commitment to continuous safety improvment will not waiver. That's why railroads, in cooperation with policymakers, their employees, suppliers, and customers, are

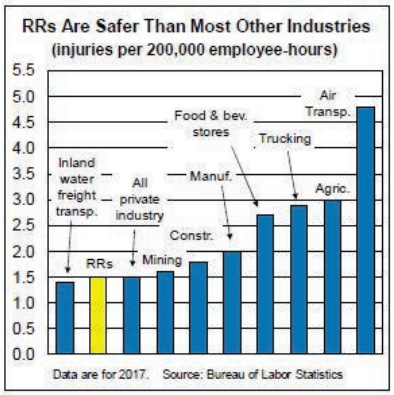
constantly looking for new technologies, operational enhancements, improved training, and other ways to further improve their safety record.

This strong culture of safety that defines the industry is so ingrained across the workforce that it's part of the regular routine. Daily safety briefings, peer-to-peer safety programs and training programs at state-of-the-art technical training centers, featuring simulators and virtual reality, are just some of the ways that railroads practice putting safety—of employees and operations—first.

The evidence of this dedication is clear and is working. The train accident rate in 2018 was down 36 percent from 2000; the grade crossing collision rate in 2018 was down 36 percent from 2000; and the employee injury rate in 2018 was down 48 percent from 2000 and was the second lowest in history. Indeed, by all these measures, recent years have been the safest in history. Railroads today have lower employee injury rates than most other major industries, including trucking, airlines, agriculture, mining, manufacturing, and construction.

Virtually every aspect of rail operations is subject to safety oversight by the Federal Railroad Administration (FRA). For example, stringent FRA regulations cover track and equipment inspections, employee certification, operating speeds, and signals. FRA safety inspectors (and in some states, state inspectors) evaluate rail facilities and operations. Railroads are also subject to oversight by the Occupational Safety and Health Administration, the Pipeline and Hazardous Materials Safety Administration, and the Department of Homeland Security.





While railroads are safer today than ever before, they want to be even safer. That's why they are constantly researching, developing, and implementing new safety-enhancing technologies. Just a few of the many examples of new safety-enhancing technologies developed in recent years or now being developed include:

- Sophisticated detectors along tracks that identify defects on passing rail cars, including overheated bearings and damaged wheels, dragging hoses, deteriorating bearings, cracked wheels, and excessively high and wide loads, before failure or other damage occurs.
- Ground-penetrating radar and terrain conductivity sensors are being developed that will help identify problems below the ground (such as excessive water penetration and deteriorated ballast) that hinder track stability.
- Remote monitoring capabilities that ascertain the structural health of bridges.
- Advanced track geometry cars that use sophisticated electronic and optical instruments to inspect track alignment, gauge, curvature, and other track conditions.

Members of this committee are well acquainted with railroad efforts to implement positive train control (PTC) so that further safety gains can be achieved.[1] The seven Class I freight railroads all met statutory requirements by having 100 percent of their required PTC-related hardware installed, 100 percent of their PTC-related spectrum in place, and 100 percent of their required employee training completed by the end of 2018. In aggregate, Class I railroads had 89 percent of required PTC route-miles in operation as of April 2019. Each Class I railroad expects to be operating trains in PTC mode on all their PTC routes no later than 2020, as required

[1] For a detailed discussion of PTC, see the testimony of my predecessor, Edward Hamberger, to this committee on September 13, 2018.

by statute. In the meantime, railroads are continuing to test and validate their PTC systems thoroughly to ensure they are interoperable and work as they should.

PTC is the latest in a long line of new technologies that railroads have adopted to improve the safety, efficiency, and reliability of their operations. Just as the industry transitioned from steam to diesel locomotives or from cabooses to end of train devices, technological innovation often brings with it the need to evolve operating procedures and models. Railroads must have the incentives and flexibility to invest and innovate in new technologies that improve safety, increase efficiencies and allow the rail industry to remain competitive.

CONCLUSION

America's railroads move vast amounts of just about everything, connecting businesses with each other across the country and with markets overseas over a nationwide network of close to 140,000 miles. As America's economy grows, the need to move more freight will grow too. In fact, recent forecasts found that total U.S. fright shipments will rise from an estimated 17.8 billion tons in 2017 to 24.1 billion tons in 2040—a 35 percent increase. Railroads are the best way to meet this demand as they save their customers billions of dollars each year in shipping costs while providing high-paying jobs; reducing energy consumption and greenhouse gas emissions; and relieving highway congestion.

For America's railroads, pursuing safe operations is not an option, it's a business imperative. Most importantly, it's the right thing to do. Railroads are not just faceless corporations from somewhere far away—rather, your neighbors are our neighbors. No matter where you live, chances are good that current or former rail industry employees live close by. Railroads know they have an obligation to operate safely for their benefit and for the benefit of all members of the communities they serve.

As I pointed out earlier in my testimony, railroads are different than most industries by dint of history, and their essential role in the U.S. economy. But they are not immune to economic forces—such as market shifts away from coal, the competiveness of trucks and volatility in international trade and the economy. Now more than in previous history, the success of railroads' role in the supply chain will depend on the industry's ability to remain competitive and grow. As railroads strive to meet the transportation needs of our nation in the years ahead, they will continue to invest, innovate, and evolve. They will also continue to rely on the skills and professionalism of the rail workforce. Railroads will work cooperatively with their employees to ensure that America's freight rail industry retains its world-best status.

Mr. LIPINSKI. Thank you, Mr. Jefferies. I will now move on to questions, and I will begin by recognizing myself for 5 minutes.

Mr. Gonzalez, I just want to mention that Chairman DeFazio and I have led a letter that has gone to Amtrak CEO Richard Anderson, asking a number of questions about the reduction in the police force. It seems like something that, as we are more focused, and Congress has taken action in recent years to be more focused on safety, especially at our train stations, that seems to be going counter to that. So we look forward to the answers from Amtrak, and we are going to continue to follow up with Amtrak on the cuts that they are proposing. But thank you for your service.

I wish that Administrator Batory was still here to be a part of this discussion. Obviously, safety is what is most important here, the safety of the workers, safety of communities that rail traffic flows through.

We have heard about issues, obviously. I am looking for what Congress can do. We have the two-person crew bill that we have right now. We also heard about FRA having not completed the rulemaking on a number of things that they have been required by Congress to do.

But I wanted to ask what, specifically—especially when it comes to PSR—we have heard stories here about what is being asked of

freight rail employees, workers, and what should Congress be doing to step in to ensure safety?

We have heard concerns that there is a fear of reporting anything.

Let me start with Mr. Pierce, and if you could be brief, I mean, what would you do? What do you want? What would you like to see Congress do to try to do a better job to ensure safety, besides what, you know, we have already talked about in your statement. Anything?

Mr. PIERCE. Thank you, Chairman. I think it is noteworthy that the Administrator picked up the Code of Federal Regulations book and waved it at the committee. It appears that he has forgotten where those regulations came from. They came from the FRA, either of its own promulgation or under a mandate by Congress.

So your question is relevant. Congress does play a role in this. We think the Safe Freight Act is a step in the right direction. If FRA will not get involved in the safe operation of long trains that affect all of our communities, and the ability to safely operate that equipment, like—as I said, when they exceed the technology that is in place today, FRA should take an interest. Congress should take an interest.

So I think there are steps that you can take that would direct FRA, as the safety regulator in our industry, to actually do what its mandate is, and regulate.

Mr. LIPINSKI. Mr. Previsich?

Mr. PREVISICH. Yes, thank you. The Safe Freight Act is very important. It has been in progress for quite some time now. It stagnates. People have worked against it, things have worked against it. But now we have what I believe is a watershed moment with the May 23rd directive from FRA, which not only withdrew their Notice of Proposed Rulemaking, it also did a couple of other things that have just as much significance.

To begin, we have already heard some that it is an attempt to preempt State laws, where the States have stepped in and believe that they should regulate at a higher level than no regulation at all. And by not regulating, FRA has declared that that means that no regulation is either needed or permitted at the State level. Congress needs to take a look at that.

In addition, another very serious communication that was buried in that May 23rd notice was the decision to not oversee artificial intelligence or autonomous operations. Every mode of transportation in the country has oversight over the development and implementation of these systems, because they are so safety critical.

Anyone with reasonable sense can see that trains with hazardous materials moving down the track with reduced crews, with some software version of artificial intelligence similar to the Boeing 737 MAX, needs oversight. It needs oversight in the development, the implementation, and ongoing modifications inherent in moving to more automation.

And more automation means more task saturation for the people on the train. It is one thing to drive a train the way that all of us have driven them for a number of years. Now the systems are becoming so complex. The interaction required for Positive Train Con-

trol, for example, did not ease the burden on the operating crew, it increased the burden on the operating crew.

Congress I would like to see step in and address simply those issues. There are other issues, and you can read them in my written submission. But those issues, as a result of the May 23rd notice to withdraw the rulemaking, all need to be addressed. And it needs to be addressed timely. Letting the Safe Freight Act sit while there was a rulemaking in place was one thing. Withdrawing the rulemaking emphasizes the importance of moving forward on these issues by Congress, because FRA has exhibited——

Mr. LIPINSKI. Thank you.

Mr. PREVISICH [continuing]. They are not going to do that. Thank you.

Mr. LIPINSKI. Mr. Boles, anything you want to add?

Mr. BOLES. I would like to say I think my organization thinks a little different in relation to safety, but I would emphasize that the regulations in place for roadway worker and highway-rail grade crossings, it is essential that we keep those in place.

I don't know if you heard Mr. Batory talk about the safety enhancements at rail grade crossings, and the bungalows that—well, that is true, to a degree. We are getting better equipment out there. But it should be used to enhance safety, not replace the workers that are doing the required tests and visual inspections of these crossings. It is detrimental to the traveling public, and, you know, we believe that, without these regulations, we are going back to a time that we don't want to be.

Mr. LIPINSKI. Thank you. Mr. Sandberg, anything you want to add?

Mr. SANDBERG. Yes, I would just like to maybe just hit it again.

Mr. Batory mentioned that if—you know, PSR would be essentially safe, if the law was followed. And that is what we think that Congress can do, is get the FRA to enforce the law, enforce what their regulations are. And part of the—what is happening with our membership is they are working—one person is working on a shift by themselves, being required to do the work of a number of people, sometimes three or four people. And this is what is causing them to have issues at work, being forced, like I said, 12 or 16 hours a day to work. Plus, you know, to do work that is not familiar to them, that they have never been trained on, but they are now required to do it, because the workers that used to do it are now furloughed.

Mr. LIPINSKI. Thank you. I am way over time here, so with that I will yield back, and I will yield to Mr. Crawford.

Since I took 8½ minutes, if you want that much time, you can have it.

Mr. CRAWFORD. I probably won't use 8 minutes, but we will get started, anyway.

Mr. Jefferies, if you would, can you outline what some of the railroad's capital expenditure priorities are?

Mr. JEFFERIES. Sure. So when it comes to investment back into the network, maintenance is always first, because you have got to maintain what you have to make sure it is operating at the highest level. And I am certainly proud to say that the network is in phenomenal shape, the best in its history, as I mentioned in my open-

ing statement. And then you are looking at CapEx expansion, et cetera.

Another place railroads are devoting significant resources—and I mentioned in my written statement—safety advancing technologies. We are deploying a suite of detection units, inspection units, that are significantly more sensitive than traditional ways of doing things. They have the ability to look inside a track, for example, to identify areas of potential fatigue before they become problems. And we believe that makes sense.

And when we are talking about the regulatory scheme, we are really talking about regulatory modernization. If there are new, more sensitive, more safety advancing methodologies of achieving regulatory mandates, those should be encouraged, and railroads should be given the opportunity to demonstrate those.

Mr. CRAWFORD. I am going to get back to technology here in just a minute. I wonder if you could comment on what some of the factors are that influence railroad staffing numbers.

Mr. JEFFERIES. Sure. Thank you for that. You know, by and large, you look historically throughout railroads, it is driven by traffic demand. You chart traffic demand against overarching bargained employee employment, it charts pretty closely together.

Now, are there going to be areas where that diverges? Absolutely. Have some railroads furloughed employees this year for one reason or another? Yes, there are accounts of that. We also have railroads that are looking to expand their employee base this year. But, by and large, it is driven by demand over the long term, and will continue to be so.

Mr. CRAWFORD. Let me get back to technology a little bit. Obviously, there have been developments, and they tend to occur at an exponential rate, as technology improves, technology improves. In recent decades—and we have seen a lot of tremendous gains throughout the whole economy, not just in the rail industry—let me ask you this. Can you provide some examples of how technology is being used in the rail industry, and the impact that it is having?

Mr. JEFFERIES. Absolutely. So, it is obviously penetrating every industry, not only the rail industry, but every industry throughout our economy. And there are enormous opportunities there, also, issues that need to be managed.

Positive Train Control is a huge issue that has been on the front burner for some years now, and I am proud to say that the industry has achieved almost full operation across its required network.

But again, to hit on other technologies out there, track inspection, continuous rail monitoring, locomotive inspection, we are able to gather enormous amounts of data as we are operating right now through our various inspection tools and detection tools to generate an overarching picture of the health of the railroad that, in turn, can be used using predictive analytics to identify potential trends as they arise.

And again, identifying problems before they become problems. And again, that is going to result in a higher level of safety throughout the network.

Mr. CRAWFORD. Thank you, I appreciate that. We had a hearing here, oh, it is a week or two ago, and a topic came up that I think

might be of interest to you, Mr. Boles, Mr. Sandberg, maybe other members on the panel, as well.

Obviously, as union representatives, I know your primary focus is to protect the well-being of your members. But I am just wondering how you feel about Chinese state-owned enterprises operating in the United States, particularly one that has won four transit contracts in major U.S. cities. It has been known to manufacture faulty cars, including many that were delivered to Singapore, two or four original cars delivered in Boston. So not just overseas, but here in the United States.

Aside from the quality concerns, the smart car technologies could be used to spy on those operating the cars and passengers riding on the cars. Are you or your membership concerned about either product quality or the ability of Chinese state-owned enterprises to engage in what really amounts to espionage and monitoring coming and going of passengers, and even in freight rail? Either one of you two want to take a crack at that?

Mr. SANDBERG. Yes, I will do the best I can with the question. That is not really what we were here today to answer.

But the fact is that these Chinese companies, or this one Chinese company in particular, has won a lot of bids to make railcars, to make subway cars for the United States to use. And whether or not they—I mean I think that there could be. There is a possibility there for some type of—I think what you are asking is can they spy on us like that, using those cars, something from them, right? Especially if something like that was to be used in this area.

Mr. CRAWFORD. Certainly I think that is——

Mr. SANDBERG. That is definitely a possibility.

Mr. CRAWFORD. Oh, that is definitely a possibility. And that is really kind of ancillary to the question of—I guess my primary question is to you, as an advocate for your membership. Are you concerned about a state-owned entity of China introducing substandard products into the United States market? How does that impact your workers, your members, your colleagues, you, and I am asking you that as a representative of the people that you work with, number one. But then, as an American citizen, do you have some concerns about, not only that, but their ability to act in an illicit manner to essentially spy on a U.S. industry, the comings and goings of passengers—and ultimately, I think their goal is to capture a significant market of freight rail, and then monitor our freight movement.

Does that concern you, as an American? Does it concern you as a representative of workers who are turning out a quality product?

Mr. SANDBERG. It does concern us, but it is more so on the manufacturing side.

Mr. CRAWFORD. Sure.

Mr. SANDBERG. That would concern us. And we do have people that manufacture cars, and it makes it very difficult for them to produce the railcars at a profit.

Mr. CRAWFORD. Right. And then, of course, you guys working in the jobs that you do, you talk about safety. If there are substandard products out there, Mr. Boles, any concerns about that?

Mr. BOLES. Well, certainly, as a labor union we support, you know, Buy American, Made in America. I mean certainly we want

that any chance we get. But, yes, substandard work always concerns us. We believe that we put out a quality product. We don't necessarily manufacture things, but, you know, other people should be held to that standard, too.

Mr. CRAWFORD. I would agree with that. I appreciate that, gentlemen, thank you for being here, and I yield back.

Mr. LIPINSKI. Thank you. The Chair will now recognize Mr. Malinowski for 5 minutes.

Mr. MALINOWSKI. Thank you, Mr. Chairman.

I am going to start with a question for you, Mr. Previsich. In your testimony you noted that Positive Train Control, for all of its benefits, cannot cut a road crossing, spot a terrorist, back up a train, make an air test, nor can it secure a train. And I think you hit there on something very important, not just with respect to what we are discussing here in the railroad industry, but one of the fundamental issues that we are going to be facing as a country, as an economy in the years ahead, and it is a complicated one: To what extent do we allow machines to replace people?

And I hope we can agree that, just because something can be automated, doesn't mean that it should be. Some cases we should go there, some cases maybe not. So I wanted to ask you if you wanted to elaborate a little bit more on that theme, on the importance of having human beings on board a train to do what technology either cannot do or should not do.

Mr. PREVISICH. Yes, thank you. And I do concur with your comments on maybe we should, as a society, take a look at is it desirable. Just because we can, does that mean we want to? And I will use autonomous operations as an example.

For years now, years, we have been working on autonomous cars. They are always going to be here next year, you are going to see them driving around on the roads. That was 3, 4, 5 years ago that we first started hearing about that. It is not yet implemented today. That autonomous automobile cannot tell the difference between the box on the side of the road or a baby on the side of the road.

And with respect to train operations, there is a feel for operating a train that comes from years of experience that can't be duplicated. Even though there may be technology that comes to the forefront that will start a train at point A, take it down the track, and stop at point B, that is good, but there are a lot of things that happened during that trip, the intervening time between point A and point B. A well-rested operating crew is observing thousands of things. They are handling multitudes of tasks, obligations.

And in addition to that, no one has ever successfully explained to me how a train blocking a crossing with the ambulance on one side and the hospital on the other can either cut itself in two so that the ambulance can get through, or even with one person, how they managed to do that.

Just because technology may permit something to happen doesn't mean that we, as a society, need for it to happen.

Mr. MALINOWSKI. Thank you. You heard my question to Mr. Batory about the 3-mile train, and how long it would take a single operator to walk all the way back. What did you think of his an-

swer, that if he is a good walker, maybe in 2 hours he could go back and forth, and that is just fine. Is that fine?

Mr. PREVISICH. It is even more complicated than that. It may take 2 hours to walk from one end to the other, but that doesn't account for whatever reason is evident for you making that walk. It doesn't account for doing it in Minnesota in the wintertime, in Arizona in the summertime. It doesn't account for the fact that maybe some work needs to be done partway down the train, if not at the very end of the train. And that work being—let's cut the crossing, for example. Well, one person can't do that. The engineer is up on the head of the train, waiting to take direction from his team member, the conductor, who is actually onsite, doing the work at the location in the train that it needs to be done.

It is unreasonable and unworkable to suggest that we are not going to block crossings, that breakdowns and occurrences are never going to happen, and that, if they do, either one person or autonomy can handle the situation out there.

Operating a train 3 miles long through communities with hazardous materials is a big deal. Yesterday we saw a derailment in Nevada. Someone had the idea that maybe they should put a munitions train onto a regular train that had hazardous materials in it, and put empties in the middle. Now, if you know anything about railroading, you don't do that. They did that.

It is something that, again, the demands of operating a 2-mile-long train—3-mile-long train is ridiculous, but a 2-mile-long train or less, those demands require two people on the crew, and that is—yes, I have been doing this for a long time. I can testify in front of any forum that it is essential that we do crews that can adequately operate the train in a safe manner, that the employees are not at risk, and that the public is not at risk.

Mr. MALINOWSKI. Thank you, Mr. Chairman. If I could have just a moment to ask one question on the—yes, thank you.

I wanted to ask you, Mr. Jefferies, on the LNG issues, because my understanding is that you support allowing LNG to move on these 113 cars. I asked this question to Mr. Batory, and to say that he did a miserable job justifying it would be an understatement. So I am going to give you a chance.

Mr. JEFFERIES. In 2017 the AAR filed to Pipeline and Hazardous Materials Safety Administration, PHMSA, to have LNG be added to the list of authorized materials that it is allowed to transport. We haven't gotten any action from PHMSA since that date, but we certainly support that proposal, and would be happy to come in and brief you on the basis for that.

Mr. MALINOWSKI. You heard Chairman DeFazio's comments and my question. You have no safety concerns about 100-car trains carrying this substance in cars that can contain 4 times as much as is currently allowed?

Mr. JEFFERIES. Railroads are going to operate any trains they operate at the highest level of safety. And we stand by our proposal in our filing in 2017 of PHMSA.

May I respond to your prior question?

Mr. MALINOWSKI. Of course.

Mr. JEFFERIES. So I think, you know, there is a lot of talk about 2- and 3-mile-long trains. If you look at the data, the average train

length in this country right now is 6,000 feet. It has hovered around that since 2010.

Of course, there are longer trains out there, no one is denying that. I think all the railroads have been public about trains upwards of 15,000 feet in certain limited circumstances. And not to say trains, you know, may not grow beyond 6,000 feet, but I think that there is a lot of data that is thrown around, or a lot of points that are thrown around there that aren't backed up by data. And I think it is important to make that point.

But regardless of train length, the railroad is going to operate to the highest level of safety on infrastructure that can manage that. And——

Mr. MALINOWSKI. Regardless of train length? So, I mean, that is just sort of a blanket statement. It is easy to say, no matter what the length of the train, no matter what we do, we will always operate at the highest level of safety, and yet you are suggesting there is no relationship between the objective fact of how long a train is, or how many people are on the train manning it and ensuring safety. You expect us to be satisfied by that blanket assertion.

Mr. JEFFERIES. I am saying railroads are going to operate to the highest level of safety, regardless of train length, and they are going to operate train lengths that are appropriate for their infrastructure, and——

Mr. MALINOWSKI. We are trying to determine what is the appropriate length.

Mr. JEFFERIES. I am not in that—I am not the one who makes that decision.

Mr. MALINOWSKI. Well——

Mr. JEFFERIES. But——

Mr. MALINOWSKI. Maybe we are. So we will take it from there. Thank you.

Mr. JEFFERIES. And to your point on number of folks in the cab, our point is that it doesn't make sense to mandate current operating practice in perpetuity. Having two individuals physically located inside the cab of a locomotive at all times, there—this FRA is on record stating there is no safety basis. The prior FRA, in its preamble to its rule, said they have no data to show that two is safer than one. NTSB sat in this hearing room in 2016 and said they had no data to show that two is safer than one. So that is not our data, and we have trains operating all over this country right now. Most Amtrak trains, commuter trains, and short line trains often operate with one in the cab. Our point is it doesn't make sense to mandate current operating practice in perpetuity.

Mr. MALINOWSKI. Well, it strikes me as common sense, but we will continue the conversation. Thank you.

Mr. LIPINSKI. The Chair now recognizes Mr. Babin for 5 minutes.

Dr. BABIN. Thank you, Mr. Chairman. I want to thank everybody for being here, I appreciate your expert witness testimony.

My first question is for Mr. Jefferies. I am the cochairman of the House Border Security Caucus, and I think addressing the national security, public health, and humanitarian crisis at our southern border is—if not *the*—one of the most pressing challenges that our homeland faces today by a mile.

I also recognize that having complete operational control of our ports of entry, including our cross-border rail lines, is just as important as a physical barrier to secure our borders and, by extension, our very sovereignty.

The challenges faced down at the Laredo, Texas, rail border crossing seem unique, since the rail border crossing is on a single track bridge over the Rio Grande River. But I assume that it cannot be the only challenging border crossing rail in our country on the southern border. Ensuring that this port of entry and others works efficiently is critical to our economy. And, as a Texan, I know that better than most.

But ensuring that we know exactly who is going back and forth, why they are doing it, how long they will be here, and that they don't pose a threat to American citizens is absolutely essential for our national security. What are your thoughts on how we can improve on both?

Mr. JEFFERIES. Sure, absolutely. Thank you for that question.

So you are right, that the situation on the border, on the southern border in Laredo, is unique on the southern border. There are, I believe, six ports of entry at the northern border that have had similar situations for about 20, 25 years, during which a Canadian crew brings a train across the border, and then does a crew change once inside the border.

What we are talking about on the southern border is 27 Mexican crewmembers who have been vetted by DHS, they are subject to FRA regulation, they are subject to drug testing. And prior to this agreement being put into place, crew changes were required to take place on the bridge over the Rio Grande. Under the new agreement, the Mexican crews take the train about 9 miles—after performing a brake test on the bridge, take the train about 9 miles in to the yard in Laredo, switch out there, and switch into a southbound train, which is allowed to proceed back into Mexico.

It has opened up not only capacity on the network, it has freed up up to 14 block crossings in the town. It is our understanding the community is supportive of this. And I should also point out that U.S. jobs have actually been added to in the rail yard because of this, because of the increase in velocity that has occurred.

Dr. BABIN. OK, great. Thank you. Thank you so much.

My next question is for each panelist. Answer yes or no. In your opinion, have you or your association ever negotiated anything that was unsafe?

Mr. Pierce?

Mr. PIERCE. No.

Dr. BABIN. OK, Mr. Previsich?

Mr. PREVISICH. I am sorry, would you repeat the question?

Dr. BABIN. Have you or your association ever negotiated anything that was unsafe?

Mr. PREVISICH. Yes.

Dr. BABIN. The answer is yes?

Mr. PREVISICH. Yes, sir.

Dr. BABIN. OK. Mr. Boles?

Mr. BOLES. No.

Dr. BABIN. Mr. Sandberg?

Mr. SANDBERG. I am not sure, but I would guess that we probably have.

Dr. BABIN. That you have? OK.

Mr. Gonzalez?

Mr. GONZALEZ. No.

Dr. BABIN. OK, Mr. Jefferies?

Mr. JEFFERIES. No.

Dr. BABIN. OK. Thank you all very much. And I yield back, Mr. Chairman.

Mr. LIPINSKI. Thank you, and now the Chair will now yield 5 minutes to Ms. Norton.

Ms. NORTON. Thank you, Mr. Chairman. This is really not my question, but Mr. Jefferies—I have to correct the record. He said that one person—that the FRA found that one person was as safe as two, the one-person crew was as safe as a two-person crew. What I had earlier quoted from, the 2016 NPRM FRA, that the agency had studies showing the benefits of a second crewmember and other information detailing the potential safety benefits of multiperson crews.

In addition, qualitative—the sole crewmember with tasks, and that PTC does not substitute for all the tasks performed by properly trained conductors. I just want to put that in the record, because I think it contradicts what you said. That is really——

Mr. JEFFERIES. May I respond to that?

Ms. NORTON. You may, but quickly.

Mr. JEFFERIES. I will just say——

Ms. NORTON. That is not really my question, I just——

Mr. JEFFERIES. I will just say the FRA did rely on qualitative studies, but also said that it had no data to support that two was safer than one in the preamble to——

Ms. NORTON. Well, I don't want to argue with you, but I don't think that the FRA comes out with that kind of a definitive with having "no data."

In other words, no data, that is your opinion. I don't think the FRA would say it had no data.

Here is my question. I am going to have to ask Mr. Jefferies to respond for Amtrak, since we don't have Amtrak here. But he does represent the association. And it is really a question for you and for Mr. Gonzalez. I was really troubled about Mr. Gonzalez's testimony, because he said that Amtrak had needlessly purchased new 9mm handguns this year, when it had already purchased .40 caliber handguns just 3 years ago.

In light of the cost cutting measures that Amtrak is experiencing, I wonder if you think, Mr. Jefferies, the purchase of handguns so soon after having purchased them reflects the priority of the industry.

Mr. JEFFERIES. Congresswoman, I have to admit I am not educated on the handgun purchase issue. I would be happy to get my associates at Amtrak to come in and brief your staff on that. I just don't have a good reading on that.

Ms. NORTON. Well, better than that, I would like you to submit an answer to my question from your association member, Amtrak, so that we can——

Mr. JEFFERIES. Absolutely.

Ms. NORTON [continuing]. Put it in the record.

Mr. JEFFERIES. I will be glad to, thank you.

Ms. NORTON. I will have to ask Mr. Gonzalez further about that.

How often, in your experience, does the police force typically upgrade equipment like handguns? Was that unusual, as far as you were concerned?

Mr. GONZALEZ. I know when I got hired in 2010 they had issued me an older weapon. And a couple of years after that, that is when they upgraded us for some—the most recent——

Ms. NORTON. So they put priority——

Mr. GONZALEZ [continuing]. The 40——

Ms. NORTON. They put priority on purchasing handguns?

Mr. GONZALEZ. I mean not really, as far as I know. I know these new 9mm weapons were a surprise to us. And that was one of our questions was why are you spending so much money on new weapons, when we just recently purchased——

Ms. NORTON. And——

Mr. GONZALEZ. Every officer received their own weapon, so——

Ms. NORTON. Yes——

Mr. GONZALEZ. It was a——

Ms. NORTON. Received their own weapon. So, you know, boy.

Mr. GONZALEZ. Yes.

Ms. NORTON. Are there increased safety concerns that require the use of weapons at Amtrak? I need to know, because this is——

Mr. GONZALEZ. I mean we have never—I mean——

Ms. NORTON [continuing]. Where Amtrak starts.

Mr. GONZALEZ. Sorry, but I think, as far as the police department as a whole, I don't know how many shootings we have had for them to upgrade or—downgrade for us, because a .40 caliber weapon has a little bit more power than a 9mm, and they decided to go with that.

Ms. NORTON. Mr. Jefferies, in the absence of Amtrak, I would also like you to submit again to the chairman an understanding of this frequent upgrading of handguns, why that is necessary. I mean, I know nothing about handguns, Mr. Gonzalez doesn't indicate he does. But when we are looking at safety officers, for example, just their presence increases safety. So somebody is over at Amtrak who is fascinated with handguns.

I have a question, another question, for you, Mr. Jefferies. Impressively, the freight shipments are increasing, according to my information, from over 17 million tons in 2017, to 24 million tons by 2040. And we have had a lot of discussion here about workforce versus technology.

And I want you to—I want to go on record just saying I am not a Luddite. I think there is no question that our country and this Congress has to prepare for the day when technology and machines, just like we had to prepare for the day when we would not be using as much manpower in the future. So I don't want to say that that shouldn't happen.

I do understand and appreciate the concern for safety that we have heard here from others on the panel, but I must ask. Do you see the workforce increasing, when we see this extraordinary increase, 17 billion tons to 24 billion tons, in, you know, a little over 10 years? Do you see the workforce increasing, as well, or do you

see employees being replaced by technology with this very substantial increase in business?

Mr. JEFFERIES. I absolutely see a major workforce role, as we move forward. I mean you pointed it out: we are going to have a huge increase in demand for freight movements in this country that we are going to be able to need to meet. And it is incumbent upon all of us at this table to work together to figure out the best ways to do that. And it may require changing roles at the end of the day. I can't say. But I can say that, you know, this is something we should all be working towards together about how to best meet that demand and serve the economy.

Ms. NORTON. Well, is the association working with the concerns we have heard here about safety and technology? We are very interested in the uses of technology.

And, as I indicated, we don't think anything could be done, even if we wanted to. You can't stop technology. I mean I drive a hybrid, I would like to drive an automatic car, too.

So I don't—but I want to know how the industry can address the concerns of the workers, so that you don't have this constant concern that it is simply a replacement of a person for technology. There go the jobs, and there is nothing we can do about it. And to what extent are ongoing discussions going on, so that there is agreement?

And I should pose that, as well, to others on the panel, so that there begins to be an agreement, instead of constant controversy as technology becomes real.

Mr. JEFFERIES. So I think that is actually one really positive thing about this industry, is that we are a fully collectively bargained industry, largely.

Ms. NORTON. Yes.

Mr. JEFFERIES. And that we are all at the table together. You know, it is going to require all of us to be at the table together. And in fact, we are required to all be at the table together to work through issues like what you pointed out, as far as the shape and look of the workforce of the future. So——

Ms. NORTON. Can I ask you—have you all been bargaining collectively about technology with some satisfaction, so that you believe that this will happen in conjunction with how the workers understand why it is happening, and without simply offloading of workers for technology?

Yes, sir.

Mr. PREVISICH. We have a history of bargaining with respect to technological improvements, and have gone along with industry movements for 40 years, 50 years, now. As things get better, from going steam locomotive to diesel locomotive, things such as that, we are with you. We are not Luddites. We get it.

The challenge is that, along the way, we don't want safety to be compromised by lack of regulatory oversight. There is a minimum standard that needs to be maintained. The industry, in and of itself, cannot be relied upon to do that. There needs to be some regulatory oversight responsibility to help us get to the right place. We can't do it on our own.

Ms. NORTON. Well, I—it is the best argument I have ever heard for collective bargaining, that if, in fact, workers sit down with in-

dustry, and can engage in collective bargaining, then I would feel that we are not the last chance for safety, that the last chance, as always, relies with fruitful collective bargaining.

And thank you very much, Mr. Chairman.

Mr. LIPINSKI. The Chair now recognizes Mr. Lynch for 5 minutes.

Mr. LYNCH. Thank you, Mr. Chairman, for holding this hearing. I really appreciate it. Great topic. I want to thank all the panelists for your cooperation in helping the committee with its work.

President Pierce, I just want to start—I want to go back to the situation on the Mexican border. It is my understanding from your testimony—and I think it was elaborated on by Mr. Jefferies—so on the southern border Mexican trainmen can come over the border, and then they change up. Is that right, about 10 miles over?

Mr. PIERCE. They operate a train across the bridge into the Laredo yard, which was approximately, I think, 9½ or 10 miles into the States. They then, if there is a train available, get on an outbound-train going into Mexico, and operate it back across the bridge going south, work that we used to perform.

Mr. LYNCH. Yes. So you used to perform that work?

Mr. PIERCE. Until July of 2018. Since 1920, yes.

Mr. LYNCH. Yes. So what about U.S. train employees? Are we allowed to go into Mexico?

Mr. PIERCE. No, the original NAFTA language had what is called an annex in it that prohibited American citizens from operating trains in Mexico. It has been in place since NAFTA was adopted. It is also included in what has been called NAFTA 2, going forward, at the request of the Mexican Government.

Mr. LYNCH. And we didn't ask for a reciprocal from—Mr. Lighthizer and our team, did we not ask for reciprocal language, so that U.S. workers would be treated the same way?

Mr. PIERCE. Despite our efforts, both with the White House and the Ambassador of Trade, no. It is not included in the current language. That is why we have asked that Congress consider adding it when it comes to your desk.

Mr. LYNCH. I know that the—and I would be happy to sponsor that amendment, by the way, and that legislation to straighten that out.

So I know you are an international union, you have got the Canadian flag on your logo. So you have got—on the Canadian border, what is the situation there? You got members on both sides, right? You have got——

Mr. PIERCE. Members——

Mr. LYNCH [continuing]. Members of the union that are in Canada, and members of the union here in the United States, is that right?

Mr. PIERCE. Yes, there is an affiliate of the Teamsters called the Teamsters Rail Conference Canada that represent the rail employees north of the border. They are a sister organization to us. They were previously part of our organization. All of the border crossings on the Canadian side, if there are any cross-border activities, are negotiated. They were not imposed. The parties have come to terms on how those trains would be interchanged on the Canadian border.

There was one case where Canadian Pacific attempted to run American crews into Canada 100 miles. That case was arbitrated, and the Canadians won, and that operation was stopped. It is back at the border, as it originally was.

Mr. LYNCH. I see, OK.

Mr. Jefferies, in my district we have had a flurry of derailments. We have got a commuter rail operator up there that has had some—a run of bad luck, I guess. And I want to ask you about PSR, and about the impact that that might have on capital expenditures, or capital investments on the part of some of our operators.

We have got an older system, I think, in Massachusetts, in the Boston area. And we have got a lot of bridges that are deficient. And we are going to try to address that in this transportation bill coming up.

But what is the—is there an impact, is there a drawing off of resources? And I know that these carriers are all trying to save a buck. And, obviously, they want to—and, by the way, a 6,000-foot train, that would be a over 1 mile, right? So you would be operating a train over 1 mile long, and that is sort of the average. That seems like a long way for—I am just trying to think——

Mr. JEFFERIES. I would say that has been the average for almost 10 years now.

Mr. LYNCH. Yes, that is a long way for one person, right, to get out, walk to the end, walk back. I mean that is a hike. Meanwhile, you got every crossing closed off while you are doing that. And, God forbid, if it was natural gas tankers stacked up for 1 mile, that is—I don't know, maybe I am just—look, I am new on this committee, but that seems like a pretty dangerous situation. I am not so sure that I agree with Mr. Batory, that that is just the way things should be. It just doesn't seem right.

But let's go back to the other question on investment, capital investment on rail. What impact do you think PSR has had on that, on capital expenditures and capital investments?

Mr. JEFFERIES. So I can tell you in recent years Class I's have averaged about $25 billion back into their networks. They are doing that again this year. It is about $480 million a week, private capital back into the networks. I have not heard that, you know—historically, I think railroads average around 17 percent revenue back into their networks, which is orders of magnitude higher than comparative industries.

Look, railroading is a capital-intensive industry. It doesn't matter what kind of operating plan you are running. And each railroad is operating the plan they think works best for it. But the fact of the matter is that there is a lot of maintenance and a lot of capital intensive requirements out there. And those aren't going away.

So I think it is safe to say that that commitment to investment is going to stay.

Mr. LYNCH. Yes. Let me just ask you this last question, and I am closing, and I appreciate your indulgence, Mr. Chairman.

So train traffic and volume has dropped, I think, 23 weeks in a row.

Mr. JEFFERIES. Yes.

Mr. LYNCH. And meanwhile, we are dealing with all kinds of truck traffic, and highways are all clogged up. Do you have any

idea what is causing that slack, I guess, in rail traffic? Because volume is down about maybe 8½, 10 percent.

Mr. JEFFERIES. So I think if you look at some of the weather events that have occurred throughout the country, throughout the winter, throughout the spring, the Midwest has suffered a number of severe events. Those are going to impact the ability of freight to move.

I will say that the railroads and their employees do a phenomenal job of getting their systems back up and running. But that has certainly impacted ag movements.

Trade issues certainly don't help, uncertainty about trade. You know, 42 percent of our goods, our international movements, are based on international movements. So we want free, fair, positive trade deals, and want goods to flow. So, you know, it is a contributing factor out there, but, you know, the freight will come back, and——

Mr. LYNCH. We hope so.

Mr. JEFFERIES [continuing]. We will be there to move it.

Mr. LYNCH. All right. Thank you for your indulgence, Mr. Chairman. I yield back, thank you.

Mr. LIPINSKI. Thank you, Mr. Lynch. I would like to thank all the witnesses for your testimony today.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing, and unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing.

Without objection, so ordered.

And before I conclude, I just wanted to say these are important issues, as we have heard here, and our freight railroad system is the envy of the world. We need to make sure that it remains that way, and, most importantly, remains safe. And so that is what we are here for, that is what Congress, this committee, is committed to doing. And we are going to continue to look at these issues and act where we believe it is necessary for us to step in to help maintain that safety.

So again, thank you for your testimony. With that, the subcommittee stands adjourned.

[Whereupon, at 1:05 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Prepared Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure

Thank you Chairman Lipinski and Ranking Member Crawford for holding this hearing.

The freight rail industry has a profound impact on our nation's commerce and economy, delivering on average 5 million tons of goods each day, and hauling approximately 35 percent of all U.S. exports. This vital freight link keeps us globally competitive.

The Class 1 railroads support nearly 1.5 million jobs and $220 billion in economic output, generating nearly $33 billion in tax revenue.

Railroad jobs are good jobs, averaging $124,000 per year in compensation and benefits. The jobs are as varied as the industries rail supports, ranging from engineering and law enforcement to operations and information technology.

The majority of the freight rail network is owned and maintained by the railroads. They invest an average of more than $25 billion, annually on capital expenditures to keep the trains rolling safely.

This private investment also fuels innovation and new technologies that directly enhance safety. Innovations such as smart sensors and advanced analytics enable railroads to proactively inspect and repair the rail network before problems arise. Railroads also are implementing Positive Train Control technology, which will help to prevent certain types of accidents.

According to 2018 Federal Railroad Administration (FRA) data, since 2009, the train accident rate is down 10 percent, the track-caused accident rate is down 26 percent, and the employee injury rate is down 16 percent.

More can be done, and we should not stifle innovation that will lead to a safer and more efficient freight rail network.

Thank you to our witnesses for coming today, and thank you again for holding this hearing.

I yield back the balance of my time.

Statement of A. Bradley Mims, President and CEO, Conference of Minority Transportation Officials (COMTO), Submitted for the Record by Hon. Carson

The Conference of Minority Transportation Officials (COMTO) is an organization established to ensure opportunities and maximum participation in the transportation industry for minority individuals, veterans, people with disabilities and certified MWDBE businesses through leadership training, professional development, scholarship and internship funding, political advocacy, partnership building and networking opportunities.

Our members are individuals, students, transportation agencies, corporations, academic institutions, industry non-profits and Historically Underutilized Businesses (HUBs). We are the presidents and chief executive officers who determine the direction of major transportation systems and the mechanics and operators who ensure the safe passage of millions of transportation riders every day.

Our membership includes significant representation from the railroad industry and the construction sector, and our primary focus is workforce development and specifically, inclusionary workforce development.

Studies conducted by the Federal Railroad Administration, the Associated General Contractors and others, confirm that there is a national shortage of skilled labor and qualified workers in the rail and construction industries.

As solutions and initiatives are developed to address these the issues of recruitment, training and retention, we believe it is essential that all industry partners have a role in shaping the workforce development models in which the country will invest and that minority shareholders—whose communities are uniquely at risk and whose futures are disproportionately at stake—have a voice at the table.

WORKFORCE DEVELOPMENT INITIATIVES/BUSINESS DEVELOPMENT

The rescission of the local hiring preference program will disproportionately impact minority businesses and communities. The MBDA, the EEOC the Office of Federal Contract Compliance, as well workforce development and training programs are all under assault. These essential programs must be preserved.

COMTO strongly supports efforts to promote diversity and inclusion in the workforce as well as continued authorization and expansion of the Workforce Innovation and Opportunity Act (WIOA), as well as the MBDA, the EEOC and compliance oversight agencies. The WIOA program includes employment and training services for adults, dislocated workers, and youth through Department of Labor formula grants to states, allowing job seekers access to employment, education, training, and support services to succeed in the labor market and to match employers with the skilled workers they need to compete in the global economy, particularly as new technologies and industries emerge.

LOCAL HIRING PREFERENCES

In 2015, the U.S. Department of Transportation launched the Ladders of Opportunity Program, which enabled recipients of FTA and FHWA grantees, including states and local agencies, to utilize local labor hiring preferences and economic-based labor hiring practices (i.e., low-income), to evaluate competitive bid submissions. In January 2017, the FHWA announced its intent to extend the contracting initiative program through 2022.

COMTO is troubled by the current Administration's decision to terminate the local hiring preference and the Ladders of Opportunity programs, which promoted workforce development, economic development and empowerment both for local governments and the neighborhoods where public transportation projects are located.

One of the reasons cited for the rescission, according to the U.S. Department of Transportation's order, was "the demonstrated minimal interest from intended participants under the two experimental programs and the inability to evaluate cost effectiveness based upon objective criteria under the . . . programs."

COMTO does not believe adequate time or attention was given to this evaluation to have reached this conclusion, and we urge Congress to act to restore the Local Hiring Preference and the Ladders of Opportunity Program, which account for jobs and business opportunities for the minority community.

FEDERAL RAILROAD ADMINISTRATION DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

Since the mid-nineties, the U.S. DOT has established a single DBE goal, encompassing firms owned by both women and minority group members.

A participation goal of at least 10% for business certified by state unified programs is required for projects funded through the FHWA, the FAA and the FTA. With a budget of close to $7 billion, the FRA is the only major federal DOT agency omitted from the DBE program.

COMTO strongly endorses an FRA program to allow DBEs to competitively participate in federally funded railroad projects. We urge Congress to require the U.S. DOT to resume and expedite the requisite disparity study and institute a DBE participation plan for that agency. This would mean millions of dollars for minority businesses and hundreds of jobs for communities.

Thank you for your time and attention, and I look forward to discussing these and other issues at greater length with the committee members in the near future.

Letter of May 22, 2019, from U.S. Senators Ron Wyden and Jeff Merkley to Union Pacific Corporation, Submitted on Behalf of the Brotherhood of Railroad Signalmen, Submitted for the Record by Hon. DeFazio

MAY 22, 2019.

Mr. LANCE M. FRITZ
Chairman, President and CEO
Union Pacific Corporation, 1400 Douglas Street, Omaha, NE 68179

DEAR MR. FRITZ,

We write to express our serious concerns with Union Pacific Railroad's (UPRR) recent layoffs of nearly 200 people and facility disinvestments. These UPRR decisions to reduce jobs at Hinkle Yard, and close the Hinkle Supply Warehouse and Mechanical Locomotive Shop in Hermiston, Oregon will devastate this rural community by hamstringing the economic opportunities and stability of the entire region. And they could create potential safety risks for the remaining employees.

Since 1951, Hinkle Locomotive and Service Repair Facility has served the locomotive scheduled maintenance service and repair needs of UPRR's Pacific Northwest corridor. While we understand that affected employees among the potentially 195 positions to be eliminated have the right to bid and bump to other rail yards, the potential outmigration of much needed family-wage jobs in rural Eastern Oregon will do serious long-term damage to the local economy and local tax base.

Earlier layoffs have already hurt rural agricultural producers and other shippers. Those shippers rely heavily on the UPRR to move goods to market, and they have reported to us difficulties reaching Union Pacific staff to resolve problems, or even reach a customer service representative.

There are other likely troubling impacts from these UPRR decisions. Its failure to work with Oregon shippers could drive more transportation to already congested freeways and undermine Oregon's transportation infrastructure investments. And given that interstate loads of hazardous materials continue to travel through rural Oregon communities often during dangerous weather conditions, closing the Hinkle Mechanical Locomotive Shop would reduce oversight and inspection and increase safety risks.

In order to better understand the impacts of these workforce and facility disinvestments, we ask that UPRR answer the following questions:

- How many workers of each classification have been laid off or forced to relocate, by Oregon county or facility? Please include train service, car and locomotive repair and maintenance, signal and track.
- How many of these workers were hired in the last three years?
- What investments has UPRR made in Oregon facilities in the last seven years? Have any of these investments been made at the Hinkle Yard?
- In the months since layoffs first started in October, has the Federal Rail Administration reviewed workers' safety concerns at Hinkle and other Oregon facilities?

As UPRR adopts the Precision Scheduled Railroading model to reduce operating ratios, cutting rural workforce and facilities, there are many cautionary tales where this strategy has not performed well over the long term. We are deeply concerned about rural Oregon economies and your company's actions as it appears to risk destabilizing already fragile communities. While the company has substantial resources to reinvest and modify operations over time, many of these workers and their families are not so fortunate.

We will look forward to your response to our questions and concerns.

Sincerely,

RON WYDEN,
United States Senator.

JEFFREY A. MERKLEY,
United States Senator.

Report, "Amtrak Policing Challenges 2019–2022," Prepared for the Amtrak Police Labor Committee, June 17, 2019, Submitted for the Record by Hon. DeFazio

AMTRAK POLICING CHALLENGES 2019–2022

Prepared for the Amtrak Police Labor Committee June 17, 2019

ABSTRACT

This report describes the actual and potential impacts of a planned 20% reduction-in-force of the Amtrak Police Department by 2022.

Prepared by: Countermeasures Assessment & Security Experts, LLC. Ernest R. Frazier, Sr., Esq. (Chief of Amtrak Police Department Ret.); Vincent A. Shipman and James W. Scutt, Project Officers.

INTRODUCTION

In May 2019, as part of a corporation wide cost cutting initiative, Amtrak management mandated that a 20% reduction in police department staffing take place prior to the close of FY2021. This staffing allocation would return the APD to pre-911 levels, representing a loss of more than 100 police positions. The reduction in associated hours totals approximately 208,000 per year of lost police protection.

It is the position of the Amtrak Police Labor Committee that the performance of an independent risk-based, comprehensive police staffing and deployment study is required prior to any reduction in force that has the net effect of removing close to 25% of the police protection from the Amtrak system.[1] This report concurs that the setting of arbitrary cuts without the benefit of in-depth analysis to determine operational impacts creates an unacceptable public safety risk for Amtrak's passengers, employees and other system users and stakeholders. Moreover, that based on this these actions, the safety and security of the Amtrak system may be compromised for years to come.

PASSENGER RAIL POLICING CHALLENGES POST 9–11

The role of the Amtrak Police changed forever when post 911 the APD became the front line of homeland security defense for the protection of the public who use or interface with the nation's intercity rail transportation system. Stated best in Federal Transit Administration publication, *Security Design Considerations Guidelines (2004)*, a paradigm shift in prioritization occurred for personnel assigned to protect the nation's rail and transit passengers. Section 5.2.7 of the guideline summarizes that "security force roles have (shifted) from crime prevention and safety to ensuring the security of the transit system and riders against attack."

[1] There are on-going cuts at Amtrak that result in an even larger percentage of loss when compared to 2001, 2004 and 2015 staffing levels.

5.2.7 Security Personnel

Many transit agencies, particularly the larger ones, deploy their own security forces to patrol facilities. Since the September 11, 2001 attacks, roles of security forces have been shifting from prior focus on crime-prevention and safety to also ensuring the security of the transit system and riders against terrorist attacks.

Security Personnel

...security force roles have (shifted) from crime-prevention and safety to *ensuring the security of the transit system and riders* against terrorist attacks.

Security personnel are responsible for carrying out access management policies and procedures and for overseeing and operating the access control systems used. Functions performed by security personnel can include:

- Identification checks - visually inspecting badges, credentials, or other forms of identification.
- Entry-point screening - visually inspecting bags and parcels, vehicles, operating metal detectors and x-ray machines, etc.
- Monitoring security systems - monitoring surveillance cameras, digital video, intrusion detection, and other security systems.
- Patrols - patrolling on foot or in a vehicle to ensure that doors are locked and fences and gates are secured. Patrols visually inspect buildings and grounds and can provide a human presence to deter intruders. A patrol can also include a K-9 component to provide additional deterrence and detection.[26]
- Response – responding to alarms or unauthorized entry.
- Communications – contacting law enforcement and emergency response personnel.

Today's Amtrak Police have five primary protection accountabilities that must be continuously performed against a backdrop of operating factors that includes a 50% plus increase in ridership.[2] Amtrak Police are responsible to provide greater and more failsafe public safety coverage to:

- Deter and prevent mass causality events such as terrorist attacks, active shooter events and relate crimes.
- Control crime and disorder in the Amtrak system, including violent and property crimes, as well as quality of life issues.
- Protect Amtrak property from theft, loss or damage.
- Maintain the trust and confidence of the public and Amtrak patrons, and employees in the system safety and security.
- Respond to situations such as medical emergencies, derailments, accidents, fire alarms, etc.

LINKAGE BETWEEN AMTRAK POLICING, COMMUNITY POLICING AND RAILROAD OPERATIONS

Policing at Amtrak is unique and incomparable to any other police force in the United States and perhaps even the world.[3] The overarching accountability of Amtrak police officers is to provide security blanket coverage at train stations and onboard Amtrak trains. Ask any train traveler and you will likely get confirmation that seeing an Amtrak Police Officer on duty in uniform is a major factor that influences their perception of safety. But Amtrak Police are also directly accountable to enforce both state and federal laws for crimes committed on or against Amtrak. Their authority has been legislatively enacted by the Congress of the United States.[4] Often, they are called upon to perform similarly to municipal and transit

[2] According to the U.S Department of Transportation, ridership increased significantly from 2000 through 2015. The increase represents an approximate 47% or 10 million additional riders into the system. Ridership in 2017 and 2018 continued to rise, topping out at a record 31,738,575, resulting in total revenues of $3.38 billion. Source: Amtrak Police Department Workforce Planning Process, submitted by Strategic Policy Partnership, LLC, December 2015

[3] In terms of accountabilities, the British Transport Police is perhaps the closest comparable force. BTP reports 8.6M users daily, protected by a police contingent of 3,069 police officers, 1,689 police staff, 300 special police officers and 362 community support staff.

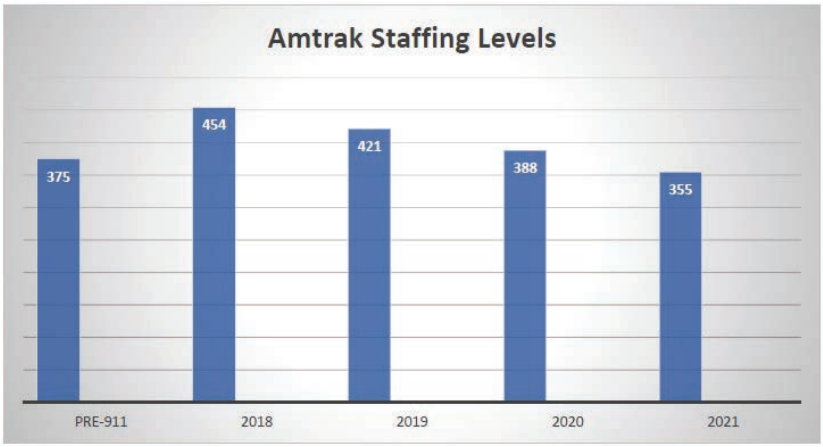
[4] Created by Congress, Amtrak's enabling legislation under the Rail Passenger Service Act of 1970, now codified starting at 49 U.S.C. 24101, established the authority for Amtrak to have

Continued

police, enforcing criminal and traffic laws, and making a multitude of arrests on and off trains, in rail yards, and right of ways. Amtrak police officers today, also share the weight with other federal, state, and local police agencies, of protecting the homeland against terrorist attack and communities nationwide against the scourge of drugs or human trafficking. There are APD officers interspersed throughout the United States on counter-terrorism teams, including the FBI's joint terrorism task force, DEA interdiction teams, and other state and regional task forces. The APD maintains and makes available through mutual aid, one of the nation's largest K9 divisions per capita, with a concentration on explosive detection. The Amtrak Police Department is a dedicated, professionally trained, specialized force of officers whose level of expertise at railroad policing is unparalleled.

The following chart depicts the proposed cuts to the Amtrak Police staffing level. As can be readily observed the cost cutting reductions return APD to an authorized strength that ignores the current realities of policing at Amtrak, as well as the strategic and tactical public safety decision making that Amtrak senior management, and the APD have made over the last eighteen years[5].

AMTRAK PRE 9–11 STAFFING VS. PROPOSED 2019–2021 REDUCTION-IN-FORCE



OPERATIONAL IMPACTS

Accurately determining the operational impacts of the proposed cuts without the benefit of a risk-based deployment study and analysis is difficult. However, there are snapshot anecdotal cases, as well as observable on-going changes in police deployment that are informative. Here are some recent facts that disclose the problems and underlying safety dangers and hazards that may increase exponentially if Amtrak continues its cost cutting plan to cut the police force.

- On March 20, 2019, the antiquated police radio system at Union Station in Chicago failed. Amtrak passengers and the minimal number of police on duty were placed into a dangerous, unsafe and unprotected condition.
- Eight days later there was a shooting in Sunnyside Queens NY. The one APD officer on duty was unable to get back-up from his own agency.
- On April 13th, the radio system in Chicago failed again.
- And dangerous drug traffickers continue to threaten the safety of the public who use the Amtrak system. On April 16th, more than 18 pounds of Fentanyl was seized from a suspect on a train in New Mexico. Seizures of Fentanyl, Heroin and other dangerous drugs on Amtrak are basically a daily occurrence.

With over 300 daily trains covering 21,000 route miles in 46 states and the Nation's Capital, Amtrak's vast rail system is a critical element to our nation's econ-

its own police force. *The statutory authority was unique at the time and included interstate police powers. (emphasis added)*. See also, 49 U.S.C. 24305.

[5] In 2015 the Amtrak Police Department with approval from Amtrak management, contracted for the performance of a comprehensive Workforce Planning and Deployment Study. The May 19th, 2019 reduction in force as proposed, has supplanted and ignored the staffing levels recommended in the study. See, Strategic Policy Partnership, LLC, December 2015.

omy and mobility. Amtrak has witnessed record ridership, yet the current police force has seen a decrease in positions by 7% since 2017. The Amtrak Police Labor Committee has observed the following on-going changes taking place as a result of staffing losses:

- Reductions in law enforcement service levels. This includes a reduction in detectives and investigators whose caseloads are increasing; reassignment of background investigations to patrol officers or K9 officers; and reduced hours of police coverage at Amtrak maintenance facilities.
- Reassignment of resources causing blanking of shifts and reductions in hours of station coverage. Stations and platforms left unprotected.
- Reductions in patrol hours are impacting the number of police officer self-initiated actions. Police officer response to quality of life issues and on location assistance to passengers and system users is declining.
- Passenger screening for explosives or other dangerous goods are being reduced and, in some cases, eliminated. Law enforcement officers assigned to screening teams in NY and Philadelphia have been reassigned.
- Special operations teams are absorbing additional work that impacts their readiness and performance.
- Counter-terrorism unit efficiency has been affected by reductions in staffing.
- Officer morale is becoming a serious issue. It is becoming more and more difficult to recruit in some cities.

There are data indicators that suggest that in the future the APD will face increased accountability for the protection of the Amtrak system. APD's National Communications Center handled nearly 153,000 incoming calls, many requiring a police response. On average APD officers are involved in well over 1,200 individual activities daily. Most of these calls are from stations or platforms and with the redeployment of resources many of these calls will result in either no response or a delayed response. Future predictable staffing impacts:

- APD staffing will fall below pre 9–11 levels. In fact, from 2017 to 2022 should these reductions in staffing take place, APD's total position loss will be down 27%.
- At certain locations there will be times when there is no police officer on duty who can respond to a call for service.
- Overall there will be a degradation in service caused by the lack of police coverage. Response times to calls for service may result in both unsafe operating conditions and unacceptable delays. For the New England Division in particular, police coverage at some stations will be eliminated. Total staffing in New England is forecast to be reduced by 50%.
- There will be a loss of capability to adequately and rapidly deploy "surge" forces to hot spots, special or national security events.
- Performance levels will fall because the span of control of Amtrak police supervisors will increase, while officer efficiency is decreased because training hours will necessarily be curtailed.
- The net effect of police force reductions generally results in difficulty recruiting employees at all levels throughout the agency for years to come.
- As regional detective and investigative units continue to be reduced, the number of case follow-ups, case closures and arrests will be negatively impacted.
- Security at rail yards and maintenance facilities will continue to see further reductions in law enforcement and security officer coverage.
- Once the reductions in staff are evidenced there is a significant probability that the system will experience an increase in criminal activity, as well as an increased potential for targeting by terrorists.
- APD's ability to maintain a robust Intelligence and information sharing capabilities with Federal, state and local intelligence units (such as Joint Terrorism Task Forces and State Fusion Center) will be impacted.
- There will be an increased risk of injury to police officers who are working with minimal or no backup. Additional lost time may further exacerbate unsafe conditions caused by staffing losses.

CONCLUSION

This report recommends that Amtrak conduct an in-depth staffing and deployment analysis of the Amtrak Police Department prior to the imposition of a series of mandated cuts to police positions. The detailed study should determine the operational impacts associated with Amtrak's planned cost cutting initiative that target reductions in staffing that represent close to one-fourth of the authorized strength of the department.

Study, "Barriers to Innovation and Automation in Railway Regulation," R Street Policy Study No. 175, June 2019, Submitted for the Record by Hon. Crawford

R STREET POLICY STUDY NO. 175

June 2019

BARRIERS TO INNOVATION AND AUTOMATION IN RAILWAY REGULATION

By Ian Adams, Nick Zaiac and Caden Rosenbaum

EXECUTIVE SUMMARY

Every day, the United States becomes more dependent on the timely delivery of vital goods and materials carried on the nation's rails. With that demand, the trains that haul these goods to all corners of the country are being subjected to ever-increasing pressure to satisfy consumer expectations. Fortunately, the U.S. rail industry and the multi-billion dollar infrastructure it supports [1] is well positioned to capture the benefits of new technologies that will automate systems to improve safety and provide better value to consumers.

Yet, obstacles to the adoption and beneficial realization of automated systems remain. The first arises from groups that are applying pressure on lawmakers to pass crew size mandates that require at least two operators onboard, irrespective of technical needs. These laws are based on misplaced concerns about safety, particularly in the face of technological advancements like Positive Train Control (PTC), and understate the role that human error can play in railroad incidents, regardless of crew size.

The second obstacle is perhaps more challenging to overcome, because it plays on a fear of the unknown—the effect of automation on employment. Indeed, the true animating principle for crew size mandates may not rest with safety at all. But, rather, is likely based in the misperception that railway automation, even where some form of human monitoring exists, will kill jobs in the railroad industry. While intuitively powerful, such arguments ignore economic precedent. Historically, the loss of some jobs through innovation also leads to job creation. Accordingly, creating a patchwork of state laws borne of that fear may ultimately disrupt the operation of the railroads that serve as a backbone of interstate commerce.

However, while news from the states is bad, a recent move by the Federal Railroads Administration (FRA) to rescind its train crew size Notice of Proposed Rule-Making offers a clear path toward a uniform—and innovation friendly—posture.[2] This is because, as the preeminent regulator of rail safety in the nation, the FRA's pronouncement that there is no safety basis for a minimum crew size mandate,[3] the reasoning of the now-rescinded NPRM,[4] represents a solid example for states to follow, and potentially a case for negative preemption of the activity undertaken by the states to date.

This development, and the possibilities it ushers forth, are good news. Because, as goes the future of freight rail commerce in the United States, so goes the welfare of consumers and the many interdependent industries that rely on the goods it carries.

INTRODUCTION

The testing, adoption and deployment of automated technologies in the rail sector offer a story of success for policymakers to learn from as they consider the regulation of other modalities of transit that are only now adopting automated technologies. Systems like Positive Train Control (PTC) and infrared track inspection, which serve to minimize the risks of human error and track failure, already exist. Other new developments in the field should be further encouraged by the robust use

[1] "Overview of American Freight Railroads," Association of American Railroads, October 2018, p. 4. https://www.aar.org/wp-content/uploads/2018/05/AAR-Overview-Americas-Freight-Railroads.pdf.

[2] "Withdrawal of Notice of Proposed Rulemaking: Train Crew Staffing," Federal Railroads Administration, May 23, 2019 [hereinafter "Crew Size Mandate Withdrawal"]. https://www.fra.dot.gov/eLib/details/L20134#p1__z5__gD.

[3] Ibid., p. 11.

[4] 81 Fed. Reg. 13,917 (Mar. 15, 2016) [hereinafter FRA Staffing Mandate]. https://www.federalregister.gov/documents/2016/03/15/2016-05553/train-crew-staffing.

of pilot projects, which are authorized by regulation and are largely creatures of industry interest and regulatory flexibility.

Yet, inspired by misplaced fears about job loss, further developments in automation that would otherwise continue to improve safety and efficiency on the nation's rails are imperiled by the creeping development of a patchwork of state laws that impose crew size mandates. As the preeminent arbiters of rail safety, such laws offer federal regulators a way to ensure that going forward, railway automation is not encumbered by thinly masked exercises in sector-specific protectionism.

With the withdrawal of the 2016 Crew Staffing Mandate,[5] the FRA has made clear that there is not a relationship between staffing and train safety. However, even with this clear statement of policy, thwarting states from passing mandates under the guise of safety-related oversight remains only an implicit proposition. The FRA should make it explicit. To that end, it should take action that makes clear that state laws that impose crew size mandates, especially against the backdrop of feasible automated technologies, are an impingement on its sole authority as the arbiter of railroad safety.

Accordingly, the present study lays out the case for such an action; first by looking at the safety history of rail automation, then by providing an overview of contemporary projects in the space and finally, by looking into the labor concerns that are the real driver of crew size mandates. Put simply, such a case for FRA preemption of state crew size mandates is the case for a safer and future-ready rail industry.

A BRIEF HISTORY OF RAIL AUTOMATION

Railway automation, particularly in passenger operations, is not new in concept or application. Since the 1970s, when automation rolled out as a major cost-saving feature of the Washington Metropolitan Transit Authority's rail network, rail operators have invested billions of dollars building out operational procedures and refining the capabilities of automated systems. Other automated lines have followed, including BART in the Bay Area, the 7 and L trains in New York, MARTA in Atlanta and the Metromover in Miami—to say nothing of the dozen or so automated trains at American airports. That investment, and hard-won experience, has meant that rail automation has continually been a subject of innovation over the last 50 years.

Not only is there a great deal of experience with automated systems in the context of rail, but the modality is, itself, well-suited to automation. As a technical matter, there are fewer variables for automated systems to account for in rail applications than in automotive ones.[6] Fewer vehicles in the right of way means fewer opportunities for human error to lead to crashes and other disasters. Improving the interface between humans and automated systems is one source of further improvements in an already-safe industry. What's more, automated systems in the context of rail also benefit from industry-wide coordination in a way that other applications lack. Indeed, via operational safety mechanisms like PTC and tracking programs like Railinc,[7] the industry has gained experience coordinating such systems.

All of this is to say that, as a matter of experience and technical suitability, rail technology is uniquely well suited among major modalities of transit for the use of ever-more sophisticated automated systems.

PRESENT APPLICATIONS OF RAILWAY AUTOMATION TECHNOLOGY

Arguments presented in favor of crew size mandates tend to focus exclusively on safety,[8] ignoring not only historical evidence of the technology's suitability to rail, but also contemporary examples of automation's value as a tool to improve the safety and efficiency of railroads.[9] For instance, in January of this year, Australian railroad Rio Tinto announced the successful deployment of its "AutoHaul" operation (named for its ability to complete autonomous heavy-haul shipments), which is already allowing iron mines to transport ore, long-distance, in the Pilbara region of

[5] "Crew Size Mandate Withdrawal." https://www.fra.dot.gov/eLib/details/L20134#p1__z5__gD.

[6] See, e.g., Nancy J. Cooke, "Human Systems Integration," Transportation Research Circular No. E-C212 (August 2016). https://sites.google.com/site/trbar070/files/Omaha__TRC2013__The%20Future%20Locomotive.pdf.

[7] Railinc is a subsidiary of the American Association of Railroads that acts as a central hub, monitoring trains like an air traffic controller.

[8] See "Crew Size Mandate Withdrawal." https://www.fra.dot.gov/eLib/details/L20134#p1__z5__gD.

[9] Ibid., pp. 8-10.

Western Australia.[10] Domestically, the potential for automated systems is similarly great, both to enhance operational safety and to improve inspection processes.

The Autohaul project runs through the Australian desert, a place with so little water that railroads need to fly crews to remote depots to change shifts. However, that does not describe many places in America, where railroad towns have had more than a century to sprout up along the existing network, and these towns face real safety risks should a derailment happen. For this reason, in the United States, railroads and their regulators will need to take extra precaution before moving to fully automated locomotive control. While the potential for complete automation is real, any move to completely remove operators from locomotives will need to be thoroughly tested in a laboratory environment and on remote stretches of track first.

Positive Train Control (PTC)

The adoption and proliferation of PTC technologies represent a substantial achievement. PTC prevents train-to-train collisions, incidents due to excessively high speeds and situations wherein trains are on the wrong track—all arguments advanced to favor crew mandates. By leveraging onboard Communications-Based Train Control (CBTC) capabilities and other advancements, trains are able to communicate with traffic management and track equipment to monitor massive amounts of data in real-time and generate meaningful, minute-by-minute insights through Railinc. Ultimately, through the combination of all of these viable capabilities, trains can anticipate incidents well before a human conductor or engineer can.

But the benefits of PTC are not only useful as a matter of safety. PTC automation can also streamline train scheduling and direction using a moving-block system,[11] which ensures train operations are maximized to reduce the costs of shipping.[12] Based on the technical benefits achieved by PTC, studies have shown that between $1.1 and $2.5 billion in efficiencies could be gained by 2029 without jeopardizing operational safety.[13] Such operational savings will translate into further investment into rail infrastructure and other consumer-side savings.

Track and Brake Inspection

The benefits of automation in the rail sector are not limited to when trains are rolling or even to the trains themselves. For example, track and brake inspection—vital and onerous tasks currently performed by human personnel on site—are also ripe to be improved through the deployment of automated systems because such systems yield generally superior safety results when compared to manual inspection.

To that end, the FRA has suspended the requirements of 49 CFR 213.233(c) and approved BNSF Railway's proposal for a track inspection pilot program on its "coal loop" that is using automated technologies to assess and monitor over 1,300 miles of main and siding tracks between Lincoln, Nebraska and Donkey Creek, Wyoming.[14] The goal of the pilot is to demonstrate that automated inspection outcomes, no less safe than human inspection outcomes, are possible. Likewise, automated brake monitoring is also showing promise, as the Federal Railroad Administration has undertaken tests at the Facility for Accelerated Service Testing (FAST) track—a 2.7-mile closed loop that can closely replicate conditions over several days with a fully loaded train. These tests have shown an ability to accurately detect wheel temperature and perform brake inspection as the train moves [often referred to as "rolling stock inspection"].[15]

Beyond track and brakes, railroads use automation to inspect other parts of trains where equipment failure could lead to safety problems. BNSF has begun using artificial intelligence technologies to look for train wheel defects with cameras,

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[10] "Rio Tinto Completes AutoHaul Autonomous Train Project," Railway Gazette, Jan. 4, 2019. https://www.railwaygazette.com/news/news/australasia/single-view/view/rio-tinto-completes-autohaul-autonomous-train-project.html.

[11] "FRA Staffing Mandate," p. 5. https://www.federalregister.gov/documents/2016/03/15/2016-05553/train-crew-staffing.

[12] "Automatic Train Control," The Railway Technical Website, 2019. http://www.railway-technical.com/signalling/automatic-train-control.html.

[13] Elliott Long, "Under Legislation, Policymakers Would Micromanage Freight Rail Employment," Medium, May 6, 2019. https://medium.com/@progressivepolicyinstitute/under-legislation-policymakers-would-micromanage-freight-rail-employmente9cfad55d471?sk=fbe52198dc3632edff7512babd7b28fa.

[14] 83 Fed. Reg. 55,449 (Nov. 5, 2018). https://www.federalregister.gov/documents/2018/11/05/2018-24111/approval-of-bnsf-railway-company-test-program-to-evaluate-automated-track-inspection-technologies.

[15] Office of Research and Development, "Using Wheel Temperature Detector Technology to Monitor Railcar Brake System Effectiveness," Federal Railroad Administration, December 2013. https://rosap.ntl.bts.gov/view/dot/28273/dot__28273__DS1.pdf?.

supplementing existing acoustic and infrared inspection technologies.[16] The Canadian national railroad uses similar optic technologies to inspect whole railcars for potential issues, including broken or out-of-place parts.[17]

These automated technologies have begun to show promise because of a regulatory environment focused on safety and efficiency-related outcomes, and not on specific approaches to achieving those outcomes. It is in that context that crewsize mandates persist as a regulatory aberration that should be addressed fully, and not simply avoided piecemeal by striking down state safety rationales.

REGULATORY ENVIRONMENT

To better understand the path to automation on the nation's rails, it is necessary to grasp the regulatory structures that will oversee the transition, and how they interact.

In 1966, Congress passed the Department of Transportation Act, which created the Department of Transportation (DOT) and the FRA.[18] As an agency within the DOT, the FRA is charged with ensuring safety, reliability and efficiency in the transportation of passengers and goods along railways, and is the premier railroad safety agency for promulgating crew size and automated-systems rules and regulations.

Although the FRA has a storied history, it is not a faultless one when it comes to regulating outcomes instead of technologies. For example, in 2015, the FRA Coordinated with the Pipeline and Hazardous Materials Safety Administration to promulgate the Electronically Controlled Pneumatic Brake System (ECP) mandate, which would have required all new tank cars to include the ECP system by 2021.[19] The ECP mandate faced sharp criticism from industry experts who claimed that it was misguided and unnecessary.[20] Although the FRA has regulatory authority to promulgate rules in this area,[21] the ECP mandate was an over-reaching standard that locked train manufacturers and rail operators in to a prescriptive solution that served as a command-and-control quick fix. Fortunately, the FRA repealed the ECP Mandate in September of 2018, allowing railroads to continue innovating and to avoid dangerous situations through performance-based innovation.[22]

Despite that outcome, in 2016, the FRA issued a prescriptive standards mandate yet again. The Staffing Notice of Proposed Rulemaking (NPRM) recommended the use of two-person crews (at a minimum) on freight trains, citing an incident at Lac-Mégantic, Quebec, Canada. Further, this action was taken in spite of the fact that the Transportation Safety Board refused to identify the train's one-person crew as the cause of the accident.[23] More remarkable still, it was taken in spite of the fact that Canadian authorities eventually concluded that crew size was not a factor in the incident. In fact, it occurred after operation, as a result of the engineer improperly securing the train when the locomotive's engines were powered down, which caused it to roll down a grade.[24] This is equivalent to forgetting to put a car in park before walking away.

While it was an unfortunate outcome, the Lac-Mégantic accident's cause bore little relation to the FRA's proposed prescriptive fix, which would have required all drivers to have a passenger. Indeed, the now-rescinded Staffing Mandate proposal was, as a technical matter, unnecessary—especially in the face of PTC and real-time track monitoring systems like CBTC.

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[16] Kyra Senese, "New BNSF Cameras Find Problems in Rails and Wheels," Railway Track and Structures, Jan. 29, 2018. https://www.rtands.com/freight/bnsf-cameras-boost-maintenance-safety.

[17] Stuart Chirls, "CN Turns to Duos Technologies for Inspections," Railway Age, May 17, 2018. https://www.railwayage.com/freight/cn-turns-to-duos-technologies-for-inspections.

[18] "About FRA," Federal Railroad Administration, accessed May 21, 2019. https://www.fra.dot.gov/Page/P0002.

[19] "DOT Announces Final Rule to Strengthen Safe Transportation of Flammable Liquids by Rail," U.S. Dept. of Transportation, May 1, 2015. https://web.archive.org/web/20150611191103/https://www.transportation.gov/briefing-room/final-rule-on-safe-rail-transport-of-flammable-liquids.

[20] See, e.g., Pat Foran, "ECP mandate: under study and on hold," Progressive Railroading, April 2016. https://www.progressiverailroading.com/mechanical/article/ECP-mandate-under-study-and-on-hold--47875.

[21] Department of Transportation Act of 1966, Pub. L. No. 89-670, §§ 6(e)(3)(A), [codified 49 U.S.C. § 303 (2019)].

[22] 83 Fed. Reg. 48,393 (Sept. 25, 2018). https://www.federalregister.gov/documents/2018/09/25/2018-20647/hazardous-materials-removal-of-electronically-controlled-pneumatic-brake-system-requirements-for.

[23] "FRA Staffing Mandate." https://www.federalregister.gov/documents/2016/03/15/2016-05553/train-crew-staffing.

[24] Ibid., p. 12

In fact, the mandate really only made sense when viewed within the scope of legacy roles and responsibilities for conductors and engineers. For example, an image comes to mind of crew members frantically shoveling coal into a furnace to stop a speeding locomotive, but any crew member of a modern-day freight train knows that bringing a train to a halt involves little more than pulling a computerized lever or pushing a button. Things have changed dramatically and today, having an extra person in the locomotive may only serve to put another person in harm's way.[25]

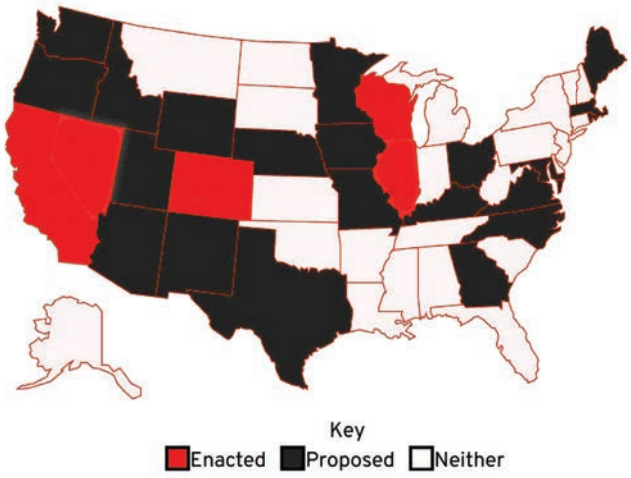
This line of reasoning was validated when the FRA decided to withdraw the 2016 NPRM on May 24, 2019, by making an affirmative decision not to regulate. In doing so, it implicitly preempted all state regulation of train crew sizes on the basis of safety.[26] As a result, state rules mandating crew sizes, when based on purported safety benefits from additional crew members, now represent inappropriate interventions into the jurisdiction of the FRA.[27]

LESSONS LEARNED

Automation does not "kill" jobs

Although the FRA's Staffing Rule has been withdrawn, it will endure as an example of how not to regulate. That is, it demonstrated that it was less than favorable to prescribe a particular technical solution when industry could more effectively innovate to achieve the desired regulatory outcome—without imposing needless and significant burdens on operations or safety.[28] Further, the rule's existence was not predicated on a safety outcome but rather existed as a job guarantee for rail workers.

IMAGE 1: CREW SIZE MANDATES (AS OF MAY 2019 FRA PREEMPTION)



SOURCE: Data compiled by the authors.

In the now partially-counterfactual world in which the 2016 Staffing Rule took effect, engineers on long-haul routes through the ranches of Wyoming's open plains or the desert stretches of the southwest would have had an unnecessary "buddy" to watch the cows go by; a second employee dispatched far from home "just in case." This is because, as the job of a locomotive engineer is reoriented to focus on the

[25] See, e.g., Shawn Logan, "CP Rail Workers Killed In B.C. Derailment Identified as Calgary-Based Crew," Calgary Herald, Feb. 5, 2019. https://calgaryherald.com/news/local-news/three-cp-rail-workers-killed-in-massive-derailment-near-field-b-c.

[26] "Crew Size Mandate Withdrawal." https://www.fra.dot.gov/eLib/details/ L20134#p1__z5__gD.

[27] Ibid., p. 24.

[28] See, e.g., Marc Scribner, "Toward Performance-Based Transportation Safety Regulation," Competitive Enterprise Institute, March 29, 2017. https://cei.org/sites/default/files/Marc%20Scribner%20-%20Toward%20Performance-Based%20Transportation%20Safety%20Regulation%202.0.pdf.

maintenance of automated systems, less time will be required to operate the trains. But, just because the nature of an engineer's job is changing, does not mean that less human engagement in the operation of railroads will be necessary. Indeed, contrary to arguments that claim railway automation will kill jobs,[29] more jobs could be created—just in different capacities.[30]

This transition is already underway. For example, jobs have been created to implement PTC, with some engineers performing maintenance, upgrades and implementation of PTC as their sole responsibility.[31] Likewise, personnel currently dedicated to safety inspections in the field will be no less necessary, but instead will perform their responsibilities in the safety of centralized operations hubs. There is no indication that this trend of job creation will not continue.

A patchwork of state laws effectively block interstate commerce

While the federal government has moved away from acting to mandate a minimum crew size, some states have begun to move in the opposite direction. As of May 2019, five states had enacted legislation that would mandate at least two-person crews on all trains, while 21 were actively considering legislation to introduce such a requirement. And, although these bills should be preempted where they focus on safety as the basis for regulation, without additional action, those that base their regulations on other grounds will continue to complicate railway automation.

Rail networks span the nation, and shipping products and materials inexpensively across thousands of miles can be significantly affected by a patchwork of inconsistent state laws that increasingly represent a burden to interstate commerce. For instance, even after the NPRM's withdrawal, it may still be the case that in Illinois, where no rail carrier can operate a train unless it has an operating crew of at least two individuals,[32] a train hauling fertilizer from Fort Worth, Texas to Chicago will be required to come to a full stop to board an additional engineer who provides no additional safety benefit.

This patchwork has since likely been preempted by the FRA's announcement of the withdrawal of its crew staffing mandate[33] under the authority of the Federal Rail Safety Act, which provides:

> A State may adopt or continue in force a law, regulation, or order related to railroad safety or security until the Secretary of Transportation (with respect to railroad safety matters) [. . .] prescribes a regulation or issues an order covering the subject matter of the State requirement.[34]

Combined with the specific preemption language in the FRA's withdrawal of the federal crew size mandate,[35] this authority effectively preempts state safety-related crew size mandates.[36] However, the preemption contemplated in the FRA mandate withdrawal is limited since its basis was the specific section of the Federal Rail Safety Act mentioned above, which forbid states from imposing safety-related mandates.[37] This section did not preempt all crew size mandates, however, and a state law purporting to simply secure additional jobs would remain legal.[38] What's more, preemption is only effective if enforced. Those states that hold out on crew size mandates may propose post hoc arguments that the crew size mandates were also intended to be a job creation mechanism.

This means that if the states are not fully preempted, the same destructive patchwork that came about under the prior safety-related crew size mandates could reemerge under a labor-specific mandate. In light of this, a federal standard should exist to conform inconsistent state laws that burden interstate commerce and thus

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[29] Paul Davidson, "Automation could kill 73 million U.S. jobs by 2030," USA Today, Nov. 28, 2017. https://www.usatoday.com/story/money/2017/11/29/automation-could-kill-73-million-u-s-jobs-2030/899878001.

[30] Katie Patrick, "Rail Industry Says Automation Will Create More Jobs, But Congress Isn't So Sure," InsideSources, May 13, 2019. https://www.insidesources.com/rail-industry-says-automation-will-create-more-jobs-but-congress-isnt-so-sure/?utm__source=The+Signal&utm__campaign=e868c225e6-EMAIL__CAMPAIGN__2018__01__16__COPY__01&utm__medium=email&utm__term=0__70b8080426-e868c225e6-49716557.

[31] Ibid.

[32] 625 Ill. Comp. Stat. 5/18c-7402 (2019).

[33] "Crew Size Mandate Withdrawal," p. 24. https://www.fra.dot.gov/eLib/details/L20134#p1__z5__gD.

[34] 49 U.S.C. § 20106(a)(2).

[35] "Crew Size Mandate Withdrawal," p. 24. https://www.fra.dot.gov/eLib/details/L20134#p1__z5__gD.

[36] Ibid.

[37] Ibid., p. 23.

[38] Ibid., pp. 22-25.

it is time for federal regulators to step in to quash the further expansion of a problematic regulatory patchwork.

RECOMMENDATIONS

As a matter of constitutional law, determinations made by the federal government supersede inconsistent state laws that unduly interfere with commerce between the states.[39] Such was the situation presented by the patchwork of state crew size mandates based on safety rationales that have since been explicitly deemed inappropriate by the FRA and implicitly preempted.[40] Yet, where states decide to move away from the backdoor safety rationale now preempted and base crew size mandates on more labor-specific grounds, such mandates still pose a significant barrier to the free flow of commerce—and the progress made by railway automation. Accordingly, policymakers should undertake the following actions to promote the further use and development of automation in the rail industry.

First, the FRA should promulgate rules that reinforce its withdrawal of the Staffing NPRM to align with the Regional Rail-Reorganization Act,[41] which provides that:

> No State may adopt or continue in force any law, rule, regulation, order, or standard requiring the Corporation to employ any specified number of persons to perform any particular task, function, or operation, [...] and no State in the Region may adopt or continue in force any such law, rule, regulation, order, or standard with respect to any railroad in the Region.[42]

Again, to specifically make explicit what is now implicit in this space will make it easier for courts to enforce the impermissibility of these state laws.

Second, states that seek to attract innovation and investment from railways should pass similar legislation that makes clear that railways—and the benefits that result from their continued investment in railway automation technologies—will not be prevented from moving commerce within those states.

Finally, in line with the DOT's novel "multi-modal" approach to automated technologies, the FRA should look to evaluate the potential scope of further pilot programs in a manner that gives firms interested in testing new automated technologies the maximum flexibility possible under existing law. Programs such as the BNSF pilot program approved by the FRA serve as a beacon of possibility and regulatory cooperation that will push railway automation forward.

Taken together, the effects of these actions would be enormous. The first would preempt state crew size mandates once and for all, fulfilling the duties charged to the FRA by Congress in its enabling legislation,[43] and exercising the necessary preemption authority delegated by Congress and reserved by the Constitution to ensure the free flow of commerce along railways, and alleviate undue burdens imposed by the states.[44] The second would be an express vote of confidence in railway automation that would spur further innovation and move the technology forward toward safer and more efficient forms of railway shipment. The third would promote the sort of innovative experimentation that will lead to further safety breakthroughs and added efficiencies.

CONCLUSION

To ensure that goods move efficiently and affordably is at the very core of the federal government's role as the nation's chief regulator of interstate commerce. And, making sure that railroads can legally use the best practices enabled by modern safety technology is key to the nation's economic competitiveness in world markets. Where states intervene in transportation markets in the name of local interests, we all lose. When that happens, federal officials in Congress and the administration have a duty to step in for the good and prosperity of the nation as a whole. Using past Congressional guidance, the FRA has already stopped the growing problem of safety-based crew size mandates, but they will face similar challenges in the future, as the pressure to put state benefits ahead of national prosperity is not going any-

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[39] See Gibbons v. Ogden, 22 U.S.(9 Wheat.) 1, 211 (1824); and South Carolina State Highway Department v. Barnwell Bros., Inc., 303 U.S. 177 at 186 (1938).

[40] Crew Size Mandate Withdrawal, pp. 22-25. https://www.fra.dot.gov/eLib/details/L20134#p1__z5__gD

[41] Often referred to as the "3R Act."

[42] 45 USC 797j (2019).

[43] Dept. of Transportation Act of 1966, Pub. L. No. 89-670, §§ 6(e)(3)(A), [codified 49 U.S.C. § 303 (2019)].

[44] See Art. I, § 8, cl. 3. See also, Nat'l Fed'n of Indep. Bus. v. Sebelius, 567 U.S. 519 (2012).

where. In light of this, Congress will need to step up and clearly assert that state rules that seek to stem railway automation are and will forever be "off track."

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APPENDIX

QUESTIONS FROM HON. PETER A. DEFAZIO FOR HON. RONALD L. BATORY, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION

Question 1. On July 1, 2019, the Government Accountability Office (GAO) issued a study on Class I railroads' train length and the impacts longer trains have on communities and safety. The GAO found that while your agency is studying the potential operational risks of long freight trains, it does not have a documented strategy for sharing the study's results with stakeholders. The GAO also found that FRA does not intend to use information gathered from its longer train study to inform the agency's work on blocked crossings. The GAO has recommended the FRA take actions to share its research and engage communities.

How does your agency intend to fulfill these recommendations?

ANSWER. In its May 13, 2019, response to GAO, FRA concurred with both of the report's recommendations and has actions underway to address them. Regarding research results, FRA has always considered sharing results an essential function of the agency's research program to advance innovative practices and technologies that will improve rail safety performance. We use multiple platforms to communicate results, including our public website—fra.dot.gov. For example, between January 1, 2018, and July 15, 2019, FRA posted on its website 100 technical reports and research results. FRA researchers are active participants in such professional forums as the Transportation Research Board annual meetings and industry conferences. Moreover, FRA is working with the Office of the Secretary of Transportation on Department-wide technology transfer opportunities.

Regarding working with railroads to engage state and local governments on the community-specific impacts of longer freight trains, FRA will use planned stakeholder engagements in 2019 and 2020, as well as other opportunities, to alert railroads to the number of complaints FRA receives, the intensity of community concerns, best practices to reduce community-specific impacts of train operations, and the benefits of working proactively with State and local governments along the railroads' rights-of-way. Planned engagements include grade crossing listening sessions and PTC collaboration sessions. These sessions bring together industry and local government stakeholders to discuss important rail safety issues.

Question 2. Will the agency share the results of the study publicly?

ANSWER. Yes. As noted above, sharing research results, including research on longer freight trains, is a priority for FRA. FRA plans to publish the report of this study on its public website, as we do with all other reports. FRA reports are also available on the National Transportation Library's online repository.

QUESTIONS FROM HON. DANIEL LIPINSKI FOR HON. RONALD L. BATORY, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION

Question 3. Administrator Batory, you indicated in one of your responses that issues relating to blocked crossings should be handled between the states, local governments, and railroads. What role, if any, do you believe the Federal Government should play in alleviating blocked crossings?

ANSWER. Idling trains blocking highway-rail grade crossings are not a new concern, so for years the Federal government, including FRA, has provided technical expertise, data, education, and outreach to assist all stakeholders in resolving issues related to blocked crossings. However, as railroad operations have changed in recent years, FRA has taken some different approaches to addressing the issue. For instance, FRA has a proposal to begin collecting additional data from the public and law enforcement on blocked crossings, which will provide the agency with more standardized data on instances of blocked crossings throughout the United States. The data will tell FRA where, when, for how long, and what impacts resulted from blocked crossing incidents reported by the public. FRA intends to maintain and ana-

lyze the data, so that over time, the locations of "hot spots," key factors leading to the reported blocked crossings, and community impacts can be identified. FRA will also continue to help facilitate meetings between stakeholders and share expertise on potential solutions to the issues, as it has historically done, but because the factors leading to blocked crossings are necessarily location and railroad specific, the federal government should not dictate solutions.

That said, I appreciate the concerns raised by Members of Congress and the motoring public, so on May 16, 2019, I wrote to the CEOs and senior leadership of the railroad companies regarding the impacts to quality of life and public safety associated with blocked crossings. My request was that the railroads determine appropriate actions to minimize blocked crossings and to redouble their efforts in working with states and local communities to advance the safety and efficiency of both railroad and highway operations.

Question 4. Is the Federal Railroad Administration considering implementing regulations regarding blocked crossings?

ANSWER. For the reasons noted above, FRA is not considering implementing regulations regarding blocked crossings.

Question 5. Railroads currently have to report some safety data regarding grade crossings to the Federal Railroad Administration. Should they be required to report data on blocked grade crossings to the Federal Railroad Administration as well?

ANSWER. FRA does not believe that railroads should be required to report data on blocked grade crossings to the agency. Operational constraints may require a train to stop for a significant period of time at some locations and FRA is proposing to begin collecting additional data on blocked crossings from law enforcement and the public to best concentrate efforts on resolving blocked crossings.

Question 6. How is the Federal Railroad Administration going to improve its data on the occurrences, causes and impacts of blocked crossings?

ANSWER. Currently, FRA is typically notified of blocked crossings via e-mail through a generic "Contact Us" website. That website is used by the public to submit any type of comment/question to FRA's Office of Railroad Safety, not just reports of blocked crossings; accordingly, the information submitted is varied and often does not identify the key facts (e.g., location, time, duration, impact) of the incident being reported, making it difficult (or even impossible) for FRA to follow-up to determine the cause of the incident. To gather more specific and actionable data, FRA is proposing to add new, dedicated links to its existing website and its existing phone application (Rail Crossing Locator) for the public to report blocked crossings. When submitting a report, information will be specifically requested on the location of the blocked crossing, the time, duration, and impacts of the blocked crossing, which will provide standardized information for analysis. We will also have a separate dedicated portal (secured by log-in), for law enforcement agencies to report blocked crossings in a similar manner. FRA intends to maintain and analyze the data so that over time, the locations of "hot spots," key factors leading to the reported blocked crossings, and community impacts can be identified.

Question 7. Do blocked rail crossings have a negative impact on the ability of emergency responders to respond to emergencies? If so, can you elaborate on this impact and what FRA is doing to minimize this impact?

ANSWER. Depending on the specific circumstance, blocked rail crossings may have a negative impact on the ability of emergency responders to respond to emergencies. For instance, if a particular highway-rail grade crossing is blocked for an extended period of time, emergency vehicles would not be able to get from one side of the track to the other at this particular location, which could have a negative impact if there is no other highway-rail grade crossing in the vicinity. Local authorities and railroads have, however, developed ways to mitigate these concerns. For instance, FRA worked with the Federal Highway Administration (FHWA) to develop their "Noteworthy Practices" document sharing information on how one local community (Kirkwood, Missouri) addressed blocked crossings. In this case, the locality installed electronic signs to direct motorists and emergency service vehicles to an overpass near a crossing with heavy freight traffic and that was frequently blocked by stationary Amtrak trains servicing a nearby passenger station. FRA recently awarded a project to install intelligent transportation systems (ITS) devices at crossings designed to notify emergency service dispatchers of the locations where crossings are blocked so the dispatchers may direct EMS vehicles to other crossings[1]. FRA will

[1] FRA contract to the University of South Carolina on an Intelligent Crossing Assessment and Traffic Sharing System (i-CATSS). The project aims to develop an affordable and field

continue to work with all stakeholders, including FHWA, to identify and develop additional solutions.

Question 8. Do you believe Congress should grant the Federal Railroad Administration any additional authority to regulate blocked crossings? If so, what specific authorities should Congress give FRA?

ANSWER. No, FRA does not believe that Congress should grant it authority to regulate blocked crossings. For the reasons described in response to question 3 above, FRA does not believe a federal, one-size-fits-all solution would effectively address the issue. As noted above, FRA believes the appropriate role for the federal government, and FRA specifically, is to provide technical expertise, data, education, and outreach to assist all stakeholders in resolving specific instances of blocked crossings.

QUESTIONS FROM HON. ANDRÉ CARSON FOR HON. RONALD L. BATORY, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION

Question 9. What personnel and contracting efforts are expanding diversity in the rail workforce and where is more work needed?

ANSWER. Since 2011, the FRA has routinely performed a comprehensive overview of the railroad industry workforce in response to the 2010 launch of the Department of Transportation (DOT) National Transportation Workforce Development Initiative. The initiative required each DOT Operating Administration to produce an analysis of its industry workforce. In FRA's inaugural 2011 documented study, through its most recent spring 2017 study update, diversity is cited in the document as a consistent railroad industry workforce challenge. The 2017 study participants included management and staff representatives from across the railroad industry, including: railroads (Class I, Short Line and Regional), railroad associations, academia, and labor unions. Dialogue with the study participants focused on a wide range of workforce development challenges. Regarding ethnic and gender diversity specifically, the study participants indicated several contributing factors, mainly physical requirements of some railroad careers, the inability to find mentors or coaches to support career progression, and unavailability of measures, data, and reporting on diversity.

Industry efforts are underway, but there is still room for improvement. Notable activity to improve diversity within the railroad industry has focused on recruiting and retention. Many railroads have programs and activities that promote mentoring minority employees and provide those employees opportunities to network with employees of similar background and experience. Additionally, some organizations have begun outreach programs to specifically target minority groups and communities to educate them on the career opportunities in the railroad industry. Such outreach activities allow current railroad industry employees to engage targeted populations and increase awareness of potential hiring opportunities.

Across the industry, more work is needed in the areas of program development, knowledge and implementation of best practices, and establishment of standardized metrics to better assess diversity and inclusion. Railroad industry members should consider exploration and sharing best practices regarding workforce data collection and analytics, and how technology can be used as a catalyst to support diversity programs.

QUESTIONS FROM HON. ERIC A. "RICK" CRAWFORD FOR HON. RONALD L. BATORY, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION

Question 10. How can this Committee help drive participation in the Confidential Close Call Reporting System (C3RS)?

ANSWER. Consistent with Congress' direction, FRA has worked hard to increase railroad participation in C3RS and to identify alternative funding options. FRA is continuing to build momentum encouraging railroads, their labor unions, and non-union represented railroads, which includes shortlines and regional railroads, to participate. The Program has nearly doubled in carrier participation over the last year and more railroads are eager to join. FRA is excited by this progress and looks forward to continuing to work with industry and this committee to reap even greater safety benefits from the C3RS program.

Question 11. When a yardmaster performs an activity that could impact the safe movement of a train along the rail line, is that yardmaster subject to hours-of-service laws?

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deployable system to provide real-time quantitative traffic information and estimate delay time due to grade crossing blockage.

ANSWER. FRA's approach to yardmaster hours of service applications is functional. When yardmasters are engaged in, or connected with, the movement of trains, they are performing covered service as a train employee and are subject to § 21103 of the Federal hours of service laws (HSL). A yardmaster may instead be subject to § 21105 of the HSL if they perform dispatching service functions. However, yardmasters are not subject to any HSL limitations if they do not perform any covered functions. This functional approach to the application of the hours of service laws is essential to proper regulation of a diverse rail industry, where employees whose job title is "yardmaster" perform different job duties for different railroads or even at different yards within the same railroad.

QUESTIONS FROM HON. ANDRÉ CARSON FOR DENNIS R. PIERCE, NATIONAL PRESIDENT, BROTHERHOOD OF LOCOMOTIVE ENGINEERS AND TRAINMEN

Question 1. What personnel and contracting efforts are expanding diversity in the rail workforce and where is more work needed?

ANSWER. Decision-making authority for hiring resides with each individual railroad. Therefore, neither the Brotherhood of Locomotive Engineers and Trainmen National Division ("BLET") nor, with one exception, any of our subordinate General Committees of Adjustment ("GCAs") have any input into hiring processes. Nevertheless, all, or nearly all, of the Collective Bargaining Agreements negotiated, administered and enforced by our GCAs include broad anti-discrimination clauses.

Moreover, wage scales, and seniority and other work rules are blind as to gender, race, ethnicity and all similar methods of classifying individuals. Consequently, there is no economic incentive for a railroad to engage in anti-diversity and/or discriminatory practices. And, of course, railroad workers also are protected by numerous federal and state laws addressing this subject.

I also am aware that many railroads maintain diversity policies, and provide diversity-related training and instruction to their employees. However, because these are company policies, neither the BLET nor its GCAs have any input.

That being said, as part of the Teamsters family, the BLET is a participant in the activities of the Teamsters Human Rights Commission and its various caucuses, which include the Human Rights Diversity Commission, the International Teamster Women's Caucus, the National Black Caucus, the Hispanic Caucus and the LGBT Caucus. BLET National Secretary-Treasurer S.J. Bruno is the designated Human Rights Officer for our Union.

The membership of the Brotherhood of Locomotive Engineers and Trainmen is far more diverse than the virtually all-white, all-male workforce that existed when our oldest working members were hired. As with the rest of the Nation, however, we should always be working to improve diversity with the tools that are available to us.

QUESTIONS FROM HON. ANDRÉ CARSON FOR JOHN PREVISICH, PRESIDENT, TRANSPORTATION DIVISION OF THE INTERNATIONAL ASSOCIATION OF SHEET METAL, AIR, RAIL AND TRANSPORTATION WORKERS

Question 1. What personnel and contracting efforts are expanding diversity in the rail workforce and where is more work needed?

ANSWER. I will begin by stating that as a labor union, our membership is open to all and we value diversity in the workplace. However, with only minor exceptions, our organization does not participate in workforce hiring on the railroads that we represent, and we are not privileged to review hiring records to support any information that we may provide in response to the question. Nonetheless, the issue of diversity in our industry is important to us and I am willing to share my personal observations on this matter.

Our union represents workers on all of the nation's major railroads, many short-line railroads and numerous passenger operations, including Amtrak. My observation is that diversity in the rail workforce is generally influenced by the demographics of the region where employed. For example, the workforce in urban areas is much more diverse than that found in rural regions, reflecting the relative demographics of both areas. Railroad work in urban areas often include a high number of passenger and freight assignments with fixed on-duty times and scheduled days off, factors that are attractive to a broad section of America's workforce.

Long-haul freight operations are a different story. Although the industry provides good work opportunities, typically the conditions are such that only a narrow spectrum of the workforce finds them to be acceptable. More often than not, crews are required to report for duty without sufficient advance notice to be rested, there are no scheduled days off, workers are forced to accept calls at any time day or night

and they are subject to discipline if they find it necessary to be off for a day in violation of an employer's attendance policy.

These adverse working conditions severely limit the desirability of railroad work for some individuals, reducing diversity by excluding all who have family or other obligations that cannot accept such conditions. For example, any who have a role as a caregiver, whether it be for an aging parent, family member or simply raising children will find it difficult to meet those demands while working on-call with a 24/7 availability requirement.

While we have aggressively pursued more stable and set working conditions at the bargaining table, the carriers have rejected our proposals. Congress has the authority and obligation to remedy this situation. The Rail Safety Improvement Act, passed by Congress and signed into law in 2008, directs the Federal Railroad Administration to enact a number of initiatives that would help mitigate many of the unsafe working conditions in the industry. While FRA has acted on some of the RSIA requirements, others of importance to railroad workers remain unaddressed.

In closing, we ask that Congress take immediate action to ensure that FRA meets its obligation to address scheduling and fatigue-mitigation issues as set forth in the RSIA and beyond. Without question, doing so will provide a more desirable workplace that will attract a more diverse workforce.

QUESTIONS FROM HON. ANDRÉ CARSON FOR ANDREW W. SANDBERG, ASSISTANT TO THE PRESIDENT, INTERNATIONAL ASSOCIATION OF MACHINISTS DISTRICT LODGE 19

Question 1. What personnel and contracting efforts are expanding diversity in the rail workforce and where is more work needed?

ANSWER. I apologize for the delay. The Machinists Union strongly supports diversity in the workplace and often encourages our employers to implement hiring practices that increase diversity in the railroad industry. However, this question should mostly be directed to our members' employers, as they are ultimately the decision makers when it comes to hiring and hiring practices.

QUESTIONS FROM HON. ANDRÉ CARSON FOR WILLIAM GONZALEZ, PRESIDENT, AMTRAK POLICE LABOR COMMITTEE

Question 1. What personnel and contracting efforts are expanding diversity in the rail workforce and where is more work needed?

ANSWER. Representative Carson, sir, this question would best be answered by Amtrak Police managers, as the Union does not have any expertise on current rail workforce hiring processes, as it relates to expanding diversity. However, what we can tell you is that the Amtrak Police Department is disjointed in its efforts to hire officers nationwide. It is our understanding that hiring is split between Amtrak's corporate Human Resources personnel in Washington, DC and Chicago. APD does not have an internal recruiting manager, nor does it have a local recruiting officer in each of its field offices. With a few exceptions, APD has little to no presence at career fairs, hiring expos, college campuses, and military job fairs where diverse, experienced officers could potentially be hired.

QUESTIONS FROM HON. ELEANOR HOLMES NORTON FOR WILLIAM GONZALEZ, PRESIDENT, AMTRAK POLICE LABOR COMMITTEE

Question 2. You said in your testimony "if cost-cutting were the legitimate concern of departmental management, why did it needlessly purchase brandnew 9m handguns this year when it had already purchased .40 caliber handguns no more than 3 years ago."

In your experience, how often does the police force typically upgrade equipment, like guns?

ANSWER. Representative Norton, ma'am, there is not a set rule on when guns should be replaced. But the Glock firearms, which are issued to the Amtrak Police Department is capable of shooting approximately 150,000 rounds before there is any need to replace any of its instruments. Amtrak trains its patrol officers in firearms a total of 16 hours annually. Out of those 16 hours, 8 hours are classroom instruction and 8 hours of actual drill shooting and qualification. On average, officers shoot an estimate of 250-500 rounds, which totals an estimate of 1000 rounds on a high-end average annually. Members of our Special Operations Unit would be the exception to this number, as they conduct additional firearms proficiency training throughout the year.

Question 3. Why were the weapons upgrades necessary? Have Amtrak officers been threatened in the commission of their duties or have you noticed an uptick in violence towards officers?

ANSWER. Representative Norton, ma'am, officers feel that the upgrade to Glock 9mm weapons was not necessary at this time. While no one disagrees that the Department should have a scheduled plan to upgrade weapons and provide new equipment on a continual basis, officers feel that the lack of radio reception to communicate and our outdated radios should have been a priority, primarily for officer safety. This has been something officers have been asking about for several years, due to the unreliability of our current system and equipment.

The recent weapons upgrade in December 2018 was a waste of Amtrak Police funds, due to the fact that upgraded weapons were purchased in 2012, which was long overdue. An average weapon issued in 2012 was only used to shoot approximately 7,000 rounds. Where in my prior response a Glock can shoot approximately 150,000 rounds before any instrument needs to be replaced.

Amtrak officers deal with a large volume of Emotionally Disturbed Persons (EDP) on a daily basis, which should be expected for intermodal transportation facilities and public train stations. However, this means that threats towards officers are commonplace and assaults on Amtrak Police Officers have been rising in recent years. With the date available to us, there have been over 50 assaults on our officers since 2015. In certain locations like Union Station in Washington, DC there has been a spike in assaults on officers. While none have resulted in a use of deadly force, we are concerned about officer safety for our officers.

QUESTIONS FROM HON. ERIC A. "RICK" CRAWFORD FOR WILLIAM GONZALEZ, PRESIDENT, AMTRAK POLICE LABOR COMMITTEE

Question 4. On average, how many Amtrak Police Department staff leave Amtrak voluntarily each year?

ANSWER. Ranking Member Crawford, sir, on average annually the Amtrak Police Department loses 20-25 staff members through resignation or retirement. 2017 was the largest loss in staffing with over 30 members leaving. Also, with Amtrak offering a buyout plan an additional 16 personnel have either resigned or retired since July 22, 2019, in total for 2019 we are at 23 members since January 2019. These numbers provided are agreement employees, commanders who are represented by Deputy Chiefs, Inspectors and Captains fall under non agreement and have taken a loss of nine (9) since 2014 but are immediately replaced. As a department we have lost over 100 APD personnel since 2014.

QUESTIONS FROM HON. ANDRÉ CARSON FOR IAN JEFFERIES, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ASSOCIATION OF AMERICAN RAILROADS

Question 1. What personnel and contracting efforts are expanding diversity in the rail workforce and where is more work needed?

ANSWER. Railroads know well that having a diverse workforce promotes greater innovation and productivity by leveraging the strengths of different talents, skills, and perceptions. From high school graduates, to military veterans, to those holding advanced degrees freight railroads employ approximately 165,000 diverse employees.

In fact, individual railroads have various programs aimed at enhancing diversity. For example, Norfolk Southern has formed division and office diversity and inclusion councils across its network, empowering employees as ambassadors of diversity and inclusion. BNSF has established a strategic plan for moving the company to its diversity goals. Union Pacific has several Employee Resource Groups across the company; these groups allow the diverse experiences, capabilities and viewpoints of all employees at all levels to be a part of its success. Canadian Pacific announced earlier this year that the first female Chairman of the Board will start this year and several other railroads have received various awards for being among the best places to work in America for women.

As the railroads continue to invest, innovate, and evolve, they will also continue to expand their efforts to make working in the industry appealing to men and women of every background and range of personal characteristics.

QUESTIONS FROM HON. ANGIE CRAIG FOR IAN JEFFERIES, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ASSOCIATION OF AMERICAN RAILROADS

Question 2. The farmers in my district and agriculture customers across the U.S. rely on a consistent and dependable rail service product to meet market demand, moving goods from production to processing in the most cost-efficient way possible.

But according to reports, the implementation of Precision Scheduled Railroading in some parts of the country have caused service disruptions—tripling, sometimes quadrupling, freight travel times.

Farmers are being squeezed from all sides. The ongoing rainfall and wet conditions limiting their ability to plant, the trade war cutting into their global market share, and the more expensive and less reliable transportation of their products.

Mr. Jefferies, how has PSR impacted service for the customers of Class 1 railroads, such as escalating costs?

ANSWER. Implementation of precision scheduled railroading, or PSR, is different for each railroad, but for all railroads that are adopting it, the goal is the same—to fundamentally improve railroad service quality and consistency. To be sure, as PSR has been adopted by various railroads, there have been hiccups along the way, some of which have led to temporarily reduced service levels. Railroads know that offering high quality, reliable service to their customers is crucial, which is why they work hard to quickly and safely resolve all service issues, whatever their cause.

Improving asset utilization has many components. One such component is providing financial and other incentives to rail customers to quickly load and unload railcars and take other steps to allow crews, locomotives, and other railroad equipment to be used as productively as possible. In some cases, rail customers face higher costs if they are unwilling to take these steps. Railroads will continue to work cooperatively with their customers to find mutually satisfactory ways to continue to make productivity gains in ways that all parties benefit.

Question 3. Do you have experience interacting with farmers in the heartland and their difficulties getting goods to market following the implementation of PSR?

ANSWER. While I have not interacted directly with farmers in the heartland, I can tell you that the railroads themselves are constantly working cooperatively with their customers to find ways to provide the safest, most reliable, and most cost-effective rail service possible.

QUESTIONS FROM HON. PAUL MITCHELL FOR IAN JEFFERIES, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ASSOCIATION OF AMERICAN RAILROADS

Question 4. Railroads are over 150 years old. In the time they have existed there have been massive advances in technologies, and the speed of those changes has increased in the 21st Century. The FRA, PHMSA, and DOT all have a culture of safety, and that is important. It is the job of policy makers to ensure regulatory frameworks from these agencies remain effective and reflect current conditions and methods.

Given the new technologies that now exist and that are on the horizon, what impact do FRA, PHMSA, and other DOT regulations have on technology deployment and what if anything should Congress be doing?

ANSWER. There is bipartisan agreement that America's regulatory processes require reform and could more accurately reflect rapid technological advancements. Improved regulations and regulatory processes can also help improve U.S. infrastructure, including rail infrastructure.

Federal regulations provide a critical safety net to the American public, but rules borne from faulty processes only deter economic growth without any corresponding public benefits. Dictating the means to an end via overly prescriptive policy increases compliance costs; can chill innovation and investment in new technologies; and can slow, or defeat entirely, an outcome both industry and government would view as a success.

Today, we have a unique opportunity to not only address specific, harmful policies, but also to improve the system that creates rules by incorporating common sense principles. Specifically, regulations should be based on a demonstrated need, as reflected in current and complete data and sound science. Regulations should also provide benefits outweighing their costs and should take into consideration the big picture view for industries and sectors—including current regulations in place.

In this regard, the freight rail industry believes policymakers in Congress and elsewhere should embrace performance-based regulations, where appropriate, to foster and facilitate technological advancement and achieve well-defined policy goals. Defining the end goal, rather than narrow steps, will boost citizen confidence in government; motivate U.S. industry to research and innovate; and create new solutions. Outcome-based measures can better avoid "locking in" existing technologies and processes so that new innovations, including new technologies, that could improve safety and improve efficiency, can flourish.

QUESTIONS FROM HON. TROY BALDERSON FOR IAN JEFFERIES, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ASSOCIATION OF AMERICAN RAILROADS

Question 5. There has been a lot of discussion today about the size of the railroad workforce. You also mentioned in your testimony that U.S. freight shipments are expected to rise 35 percent by 2040.

Can you explain how these two factors—size of the railroad workforce and rail demand—are related if at all?

ANSWER. Like firms in every other industry, railroads must manage their resources—including their most important resources, their employees—based on business needs. The number of rail employees does, in fact, tend to ebb and flow based on current and expected future rail traffic levels, technological developments, and other factors. Railroads are hopeful that freight transportation demand will continue to grow, and they will make sure that their assets—equipment, infrastructure, and employees—will be adequate to meet those transportation needs.

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