Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Peter A. DeFazio
Chairman

Sam Graves
Ranking Member

Katherine W. Dedrick, Staff Director

Paul J. Sass, Republican Staff Director

June 17, 2019

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Railroads, Pipelines, and Hazardous Materials
FROM: Majority Staff, Subcommittee on Railroads, Pipelines, and Hazardous Materials
RE: Subcommittee Hearing on "The State of the Rail Workforce"

PURPOSE

The Subcommittee on Railroads, Pipelines, and Hazardous Materials will meet on Thursday, June 20, 2019, at 10:00 a.m. in 2167 Rayburn House Office Building to hold a hearing titled, "The State of the Rail Workforce." The hearing will explore the current issues facing the rail workforce, including employment cutbacks and safety issues. The Subcommittee will hear testimony from the Federal Railroad Administration, the Association of American Railroads, the Brotherhood of Locomotive Engineers and Trainmen, SMART's Transportation division, Amtrak Police Fraternal Order of Police, International Association of Machinists and Aerospace Workers, and the Brotherhood of Railroad Signalmen.

BACKGROUND

I. WORKFORCE ISSUES

A. Decline in Workforce Numbers

According to Surface Transportation Board's (STB) employment data, the seven Class I railroads and Amtrak employment levels have been in a steady decline in the United States since 2015.[1] 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 in workforce.

CSX Railroad drastically cut its workforce in just the last three years, with a reported 25,499 employees in May 2016, down to 19,650 in May 2019. In just one year, from May 2018 to May 2019, Union Pacific cut its workforce by 2,918, with maintenance of equipment jobs accounting for 1,467 of those cuts. Since May 2015, Norfolk Southern (NS) has reduced its workforce from 29,798

[1] Annual Employment Data (2015-2019). Surface Transportation Board. Available at: https://www.stb.gov/econdata.nsf/322683bcf67f4143852566210062ac90?OpenView

employees to 24,985 in May 2019. There are a number of factors that could be attributed to the recent reduction of rail workforce, but overarching organizational changes driven by Precision Scheduled Railroading appear to be a driving force behind the reduction in freight railroad employment levels.

B. Precision Scheduled Railroading

Precision Scheduled Railroading (PSR) is a railroad management strategy that has resulted in significant growth in shareholder value but has come at the expense of long-term capital investments in networks, a reduction in rail infrastructure, and declines in the rail labor market. According to a white paper prepared by Canadian Pacific, whose CEO at the time, Hunter Harrison, had pioneered the strategy, PSR relies upon several concepts, including controlling costs and optimizing asset utilization to improve the efficiency of operations across the network.[2] According to that same publication, PSR challenges the view that more locomotives, cars, and crews allow for greater traffic volume, instead viewing more equipment as a contributor to congestion that slows down the system. The concept is that running fewer, heavier, and longer trains faster and on fixed timetables to reduce dwell time allows railroads to utilize assets more productively and achieve significant savings. It involves sorting cars into blocks (pre-blocking) as they are picked up from shippers.

The measure most commonly used to analyze the efficacy of this approach is a railroad's operating ratio (OR), which is defined as its operating costs as a percentage of its revenue. It was first implemented in Canada, at Canadian National Railway (CN) and Canadian Pacific (CP), where freight rail networks have different features than the densely-traveled and complicated systems in the United States.[3] The first domestic railroad to attempt PSR was CSX. When Mr. Harrison arrived at CSX, its OR was 69.4%.[4] By the third quarter of 2018, CSX's OR was down to 58.7%; for comparison, during that same time, NS's OR was 65.4%, Union Pacific's (UP) was 61.7%.[5]

These changes do not come without consequences. Within the first month of Mr. Harrison joining CSX, the railroad closed four hump yards in Georgia, Kentucky, Ohio and North Carolina, largely due to the high costs of staffing and maintaining them.[6] Eventually, Mr. Harrison closed eight of CSX's 12 hump yards.[7] When CSX implemented PSR, service disruptions rippled throughout the CSX network, with resounding complaints from shippers about the impacts—ultimately leading to an October 2017 public listening session at the STB focused on CSX's service issues. For example, freight travel time from Chicago, IL to Colesburg, TN swelled from a few days to more than 18 days; some shippers slowed production due to the unpredictability of rail delivery; and others incurred hundreds of thousands of dollars in additional business costs to accommodate slow delivery.[8] Additionally, railroads are operating longer trains, some up to three miles long. For

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[2] Precision Railroading: Using the CP Model to Build a Leading Transcontinental Railway. Canadian Pacific. April 2016.
[3] Ari Ashe. "Jury Still Out on 'Precision' Railroading in US." JOC. April 5, 2019. Available at: https://www.joc.com/rail-intermodal/class-i-railroads/jury-still-out-%E2%80%98precision%E2%80%99-railroading-us_20190405.html.
[4] Jacquie McNish. "CSX Chief Hunter Harrison Has Died" The Wall Street Journal. Dec 16, 2017.
[5] Gregory Meyer. "US Railroads Employ 'Precision' Principles to Boost Profit." The Financial Times. October 25, 2018.
[6] Paul Ziobro. "New CSX CEO Shakes Up the Railroad, Starting with Hump Yards." The Wall Street Journal. April 18, 2017.
[7] Paul Ziobro. "Trains in Vain: Epic CSX Traffic Jam Snarls Deliveries, From Coal to Fries." The Wall Street Journal. Aug. 22, 2017.
[8] Paul Ziobro. "Trains in Vain: Epic CSX Traffic Jam Snarls Deliveries, From Coal to Fries." The Wall Street Journal. Aug. 22, 2017.

instance, in 2018, CSX had increased its average train length by five percent in the first quarter of 2018 from the previous year, UP began running 14,000- to 15,000-foot trains daily on much of its double track, and BNSF began testing 16,000-foot long trains on certain segments of track. Train length, car arrangement, and operation are part of the National Transportation Safety Board's (NTSB) investigation into the August 2017 derailment of a 178-car CSX train in Hyndman, PA, and unions representing crewmembers have indicated that communication systems fail on miles-long trains. [9]

Yet, the shareholder return at CSX prompted demands from other rail shareholders to implement PSR, leading UP, Kansas City Southern Railroad (KCSR), and NS to follow suit.[10] While BNSF has not implemented PSR, Warren Buffett, whose Berkshire Hathaway owns BNSF, noted that lessons could be learned from PSR.[11] Union Pacific's PSR plan involved the reduction of 627 locomotives (approximately eight percent of its fleet), halting the construction of a $550 million facility in Brazos, Texas, and closing two other train-sorting yards in Hinkle, Oregon and Pine Bluffs, Arkansas.[12]

As of October 2018, NS began gradually phasing in PSR. The railroad plans to hold capital spending to between 16% and 18% of revenue, compared with less than 15% for Union Pacific and about 13% for CSX.[13] In NS' 2019 Investor Day presentation, the railroad highlighted its improvement in OR from 72.8% in 2015 to 65.4% in 2018, touting increased revenue and lower headcount.[14] NS announced plans to reduce its operating ratio to 60% by 2021, noting that it had already cut headcount by 500 and planned to reduce 3,000 jobs by that point, running 500 fewer locomotives.[15,16] NS emphasized reducing car dwell and increasing train speed as critical elements to helping it increase revenue, while reducing labor costs, maintenance and equipment expenses, and fuel consumption.[17] Rather than reinvesting in its system, NS announced that it intends to increase shareholder value by returning the benefits or its operating ratio improvements to shareholders with an increased dividend and share repurchases.[18] NS poured $2.8 billion out of the company to repurchase shares in 2018, and skyrocketed dividends per share by 25% in 2018. In January 2019, NS increased its dividend by 8%.[19]

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[9] https://www.ntsb.gov/investigations/AccidentReports/Pages/DCA17FR011-prelim-report.aspx

[10] "Kansas City Southern Names Sameh Fahmy Executive Vice President Precision Scheduled Railroading." Kansas City Southern. February 7, 2019. http://www.kcsouthern.com/media/news/news-releases/kansas-city-southern-names-sameh-fahmy-executive-vice-president-precision-scheduled-railroading.

[11] Kevin Curran. "Warren Buffett Could Take Cues from Hunter Harrison for Railroading Business." The Street. May 4, 2019. Available at: https://realmoney.thestreet.com/investing/stocks/warren-buffet-could-take-cues-from-hunter-harrison-for-railroading-business-14948387.

[12] Paul Ziobro. "Union Pacific Halts $550 Million Texas Project." The Wall Street Journal. April 18, 2019.

[13] Paul Ziobro. "A Revolution Sweeping Railroads Upends How America Moves Its Stuff." The Wall Street Journal. April 3, 2019.

[14] 2019 Investor Day Presentation. Norfolk Southern Corporation. Slide 24. Available at: http://www.nscorp.com/content/dam/nscorp/get-to-know-ns/investor-relations/presentations/2019/investorDay2019_all_presentation.pdf.

[15] *Id.* at Slide 12.

[16] *Id.* at Slide 26.

[17] *Id.* at Slides 52-53.

[18] *Id.* at Slide 29.

[19] *Id.*

C. Mexican Crews

On May 31, 2018, KCSR petitioned the Federal Railroad Administration (FRA) for a modification to the railroad's waiver of compliance from Federal railroad safety regulations that require Class III air brake tests be performed in the U.S. The Rail Safety Improvement Act of 2008 prohibits mechanical and brake inspections of rail cars performed in Mexico from satisfying U.S. rail safety laws and regulations unless certain conditions are met, including the ability for FRA to perform onsite inspections to ensure compliance.[20] KCSR petitioned to perform these brake inspections at the Kansas City Southern de Mexico's (KCSM) Nuevo Laredo or Sanchez Yard in Mexico.[21] On March 8, 2019, FRA denied that petition, stating that KCSR did not provide evidence demonstrating its arguments of the safety and security risks created by performing the class III brake tests at the border, nor did KCSR provide evidence that the current brake tests lead to blocked crossings at nearby communities.[22]

Tangentially, on June 2018, FRA approved KCSR relief at the U.S.-Mexico border by permitting Mexican-crewed operations beyond the U.S. border and into KSCR's Laredo Yard. Previously, U.S. crews took control of northbound trains from Mexican crews at the International Bridge and brought those trains nine miles north to the Laredo Yard, and handed off the southbound trains back to Mexican crews at the International Bridge. The Mexican crews are employed by Servicio, a subcontractor to KCSM, a subsidiary of KCSR.

FRA regulations establish minimum federal safety standards for the eligibility, training, testing, certification, and monitoring of all locomotive engineers and conductors. However, FRA regulations allow foreign railroads to operate 10 route miles beyond the border into the U.S., so long as crews meet all FRA safety certifications and qualification requirements, with the exception of pre-employment and random alcohol and drug testing.[23] In 2016, GAO studied ongoing DOT efforts to help address the impacts of international freight rail at the U.S. border, and according to DOT officials at the time, the lack of Mexican safety regulations for the qualification and certification of locomotive engineers and conductors that are comparable to FRA regulations prohibits the United States from allowing Mexican crews to operate trains in the United States.[24] NAFTA prohibits U.S. crews from operating in Mexico.

II. SAFETY ISSUES

A. Safety Analysis

According to the FRA, in 2018 there were 17 on-duty employee deaths and 16,614 non-fatal on-duty employee incidents/accidents. Of those incidents/accidents, passenger and freight (though, local, and way freight) conductors accounted for nearly 17%.[25]

1,870 train accidents occurred in 2018 (excluding grade crossing collisions), which resulted in 8 fatalities and 200 injuries. The FRA organizes the causes of train accidents into five categories:

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[20] P.L. 110-432.
[21] 83 Fed. Reg. 35052 (July 24, 2018).
[22] Federal Railroad Administration. See Docket Number FRA-2007-28700-0032.
[23] 49 CFR 219.3(d)
[24] United States Government Accountability Office. U.S. Border Communities: Ongoing DOT Efforts Could Help Address Impacts of International Freight Rail. January 2016.
[25] See Incident and Accident Data. Federal Railraod Administration, Office of Safety Analysis. Available at: https://safetydata.fra.dot.gov/OfficeofSafety/Default.aspx.

human factors; track and structures; equipment; signal and train control; and miscellaneous. Human factors and track defects consistently rank as the top two causes of all train accidents. According to the FRA, 37 percent of all train accidents are the result of human factors and 29 percent are the result of track defects. In 2018, the top five causes for accidents were improperly lined switches, defective/missing crossties that lead to a wide track gauge; detail fractures in rail bed; failure to comply with restricted speed; and the absence of an employee on, at, or ahead of a shoving movement.

B. Fatigue

Working in the rail industry requires complex interactions, complete attention, and proficient skills; however, fatigue can impair one's ability to remain awake, alert, and attentive while performing safety-related tasks. Insufficient and low-quality sleep can lead to fatigue. Sources of fatigue vary but can include unpredictable or inverted work schedules, living environments, and certain medical conditions.

The NTSB has found that fatigue remains a pervasive problem across transportation modes, issuing more than 200 safety recommendations that address fatigue among transportation workers. Between 1983 and 2018, the agency issued more than 25 fatigue-related recommendations intended to improve rail safety, and fatigue was identified in the probable cause, as a contributing cause, or as a finding in seven major rail investigations the NTSB conducted between 2001 and 2012.

Congress took steps to help mitigate fatigue by enacting section 103 of the *Rail Safety Improvement Act of 2008* (RSIA, P.L. 110-432), which directed the Secretary of Transportation to issue regulations within four years requiring certain freight and passenger railroads to develop in consultation with labor and submit to FRA for approval safety risk reduction programs that would systematically evaluate safety risks and manage those risks to reduce railroad accidents, incidents, injuries, and fatalities.[26]As part of the railroad safety risk reduction program, railroads were to develop and update a fatigue management plan designed to reduce the fatigue experienced by safety-related railroad workers and reduce the likelihood of accidents, incidents, injuries, and facilities caused by fatigue. To meet the mandate, FRA is undertaking rulemaking proceedings on System Safety Program (SSP) for passenger railroads and Risk Reduction Program (RRP) for freight railroads. Earlier this month, FRA published a NPRM to extend the stay of the SSP final rule's requirements and amend the rule's compliance dates. No final rule has been issued for RRP.

Hours-of-service (HOS) regulations specify the length of on-duty and off-duty time for certain railroad crafts, including locomotive engineers, conductors, dispatchers, and signalmen. However, yardmasters are not covered by HOS regulations. These workers supervise and manage the fast-paced and dynamic work flow that takes place in railroad yards by communicating and coordinating with yard track users. Yardmasters are responsible for, and must be made aware of, inbound and outbound trains, switch crews operating in the yard, and the yard infrastructure. They often are also responsible for making up trains. Without HOS coverage, these workers generally work eight to sixteen hours per day but may work longer.[27]

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[26] The law subjected Class I railroads, railroad carriers determined to have inadequate safety performance, and railroads providing intercity or commuter rail passenger transportation to this requirement.

[27] "Yardmasters and Yard Safety in the U.S. Railroad Industry: An Exploratory Study," Federal Railroad Administration, January 2007, page 9.

C. Two-Person Crew

Federal regulations do not require a minimum crew size. While some railroad operations use single-person crews, most railroads currently operate with two crewmembers: a locomotive engineer and a conductor.[28] In two-person crew operations, engineers and conductors work together to safely operate a train. FRA regulations do not prohibit railroads from choosing to operate a train with only one crewmember.[29]

In March 2016, the FRA issued a notice of proposed rulemaking (NPRM) that proposed a standard requiring a minimum of two crewmembers and minimum requirements for the roles and responsibilities of the crew. Under the NPRM, FRA considered two options for permitting existing single-crew operations to continue: one that intended FRA to issue a notice of approval or disapproval of single-crew operations and a second option allowing the operation to continue upon filing a description of the operation to FRA.[30] The NPRM also considered two options for allowing railroads to begin freight and passenger operations with single-person crews: one option required railroads to file a detailed petition with the FRA seeking its approval before beginning the operation and the second allowed such operations to begin after the railroads submitted to FRA detailed information about the operations.[31] Both options also required start-up single-crew passenger rail operations to have approved passenger train emergency preparedness plans.

The NPRM also provided exceptions for passenger and freight trains from the two-person crew minimum. The exceptions would have allowed most existing operations using one-person crews to continue without change, according to the FRA.[32] These exceptions included: trains that perform helper service; are tourist, scenic, historic, or excursion operations; or are lite locomotives, work trains, or certain remotely-controlled trains. Passenger trains were excepted from the standard when: moving with empty cars for purposes other than picking-up or dropping-off passengers; operating a train with a single self-propelled car or married-pair unit and where the engineer has direct access to the passenger seating compartment and has an approved emergency response plan; and providing rapid transit operations in urban areas under certain conditions. Further, the NPRM excepted certain small freight railroads and freight trains being loaded or unloaded in an assembly line manner. Notwithstanding these exceptions, trains carrying certain amounts and types of hazardous materials could not be excepted from the proposal.[33]

In the NPRM, the FRA wrote that it was "concerned that as railroads implement positive train control (PTC) and other technologies, they may expand use of less than two-person crews on operations without considering safety risks or implementing risk mitigation actions that FRA

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[28] See 49 CFR Parts 240 and 242 for qualification and certification of locomotive engineers and conductors, respectively.
[29] Train Crew Staffing Notice of Proposed Rulemaking. (RIN 2130-AC48). Federal Railroad Administration. March 15, 2016. See Docket Number FRA-2014-0033, page 13943.
[30] The first option required railroads to submit to FRA a safety analysis of the single-crew operation, while the second option required the safety analysis be made available to FRA upon request.
[31] Under the first option, FRA intended to review the petition within 90 days. If FRA had not acted within 90 days, the railroad could request a decision within 30 days, after which the petition would take effect if FRA had not issued a decision. The second option also required a signed statement by the railroad officer in charge of operations attesting that a safety analysis had been conducted and that the operation provided an appropriate level of safety.
[32] Transcript of Statement of Robert Lauby, Associate Administrator for Railroad Safety and the Chief Safety Officer for the Federal Railroad Administration, Public Hearing on the Train Crew Staffing. July 15, 2016. See Docket Number FRA-2014-0033-1559.
[33] Train Crew Staffing Notice of Proposed Rulemaking (RIN 2130-AC48). Federal Railroad Administration. March 15, 2016. See Docket Number FRA-2014-0033.

believes are necessary."[34] The agency also stated that, "[i]n discussing the future of train operations with officials from various railroads, FRA has become aware that some railroads have shown a willingness to conduct more operations with only one crewmember."[35] The agency held a public hearing on the NPRM in July 2016, where elected officials, labor unions, and industry provided comments on the proposal.

On May 29, 2019, the FRA published in the Federal Register a notice to withdraw the 2016 NPRM.[36] In the May 2019 document, FRA countered some of the points it made three years earlier in the NPRM and wrote that the withdrawal of the NPRM preempts states from enacting laws relating to crew size.

D. Positive Train Control Training

Positive Train Control (PTC) are technologies designed to automatically stop or slow a train to prevent train-to-train collisions, over-speed derailments, incursions into established work zones, and the movement of a train through a switch left in the wrong position. Congress enacted the *Rail Safety Improvement Act of 2008* (RSIA, P.L. 110-432) in October 2008, requiring each Class I railroad and each entity providing intercity or commuter rail passenger transportation to implement a PTC system governing certain operations by December 31, 2015.[37] That deadline was extended in the *Surface Transportation Extension Act of 2015* (P.L. 114-73) to December 31, 2018. The Secretary was authorized to provide each railroad on a case-by-case basis with an additional extension of up to 24 months as long as the railroad: installed all PTC system hardware; acquired all spectrum; in the case of a Class I railroad carrier or Amtrak, implemented PTC or initiated revenue service demonstration on 50 percent of its territories; in the case of a commuter railroad, initiated revenue service demonstration on at least one territory; and completed employee training required under the applicable regulations.[38]

Railroads subject to the PTC mandate must train certain workers to ensure they have the knowledge and skills needed to safely perform their PTC-related tasks. The FRA's PTC training program regulations specify that the following workers be trained: those who install, maintain, repair, modify, inspect, and test safety-critical elements of the railroad's PTC systems, including central office, wayside, or onboard subsystems; train dispatchers who issue or communicate any mandatory directive that is executed or enforced, or intended to be executed or enforced, by a train control system; workers who operate trains or serve as a train or engine crewmember operating in territory where a train control system is in use; roadway workers whose duties require them to know and understand how a train control system affects their safety and how to avoid interfering with its proper functioning; and the direct supervisors of these workers.[39]

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[34] Train Crew Staffing Notice of Proposed Rulemaking (RIN 2130-AC48). Federal Railroad Administration. March 15, 2016. See Docket Number FRA-2014-0033, page 13919.

[35] *Id.*

[36] Train Crew Staffing Notice. Federal Railroad Administration. May 29, 2019. See Docket Number: FRA-2014-0033-1606.

[37] P.L. 110-432 required railroads to install PTC systems on: (1) main lines over which intercity rail passenger transportation or commuter rail passenger transportation is regularly scheduled; (2) main lines over which poison- or toxic-by-inhalation hazardous materials are transported; and (3) such other tracks as the Secretary of Transportation may prescribe by regulation or order.

[38] 49 CFR Part 236.

[39] 49 CFR § 236.1041.

Under these regulations, employers are required to ensure that at a minimum the training identifies the specific training goals for the targeted population; identify the installation, maintenance, repair, modification, inspection, testing, and operating tasks that must be performed on PTC systems; develop written procedures for those tasks; identify the additional knowledge, skills, and abilities above those required for basic job performance necessary to perform each task; develop a training and evaluation curriculum to impart the knowledge, skills, and abilities identified as necessary to perform each task; require workers to successfully complete a training curriculum and pass an examination that covers the PTC system and rules and tasks for which they are responsible prior to assigning related tasks; require periodic refresher training and evaluation; and conduct regular and periodic evaluations of training program effectiveness.[40]

E. Amtrak Police

The Amtrak Police Department (APD) ensures the safety and security of Amtrak's tens of millions of passengers, more than 20,000 workers, critical infrastructure, and the countless communities through which an estimated 300 daily trains travel. Given the unique challenges of securing a passenger rail system that reaches 46 states and includes accessible tracks and stations, expertise is necessary to keep passengers safe while preventing unnecessary service delays.

The APD fulfills this need by responding to incidents taking place onboard trains and in stations and facilities, ranging from assaults, robberies, and disorderly conduct, to weapon law violations, and Amtrak property damage. The workforce also supports counterterrorism efforts and thwarts the illegal transport of narcotics. From May 1, 2018, to April 30, 2019, the APD filed reports on more than 18,500 incidents and made nearly 2,000 arrests across the six geographic divisions.[41]

Amtrak currently is authorized to hire 454 commissioned officers. As of May 3, 2019, Amtrak employs 431, according to the railroad's data. These employed forces are divided between the Office of the Chief (29), and the Office of Assistant Chief, including Special Operations (84) and the six divisions: New England (57); New York (74); Mid-Atlantic North (67); Mid-Atlantic South (48); Chicago/Central (47); and Western States (25).

In May 2019, it was announced that Amtrak would be implementing a plan to make changes to the APD, which include cutting the APD workforce by 20% or roughly 100 positions, and reallocating where the forces are deployed throughout the network. These changes began taking effect June 1, 2019 and will continue over the next several years. Little information is available about the data Amtrak used to develop its plan, how the plan will be deployed, which stations, facilities, or trains will be impacted, or how safety will be maintained if Amtrak FOP forces are reduced.

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[40] 49 CFR § 236.1043.

[41] According to Amtrak Fraternal Order of Police Labor Committee data. The six divisions include: New England; New York; Mid-Atlantic North; Mid-Atlantic South; Chicago/Central; and Western States.

WITNESSES

Panel I

The Honorable Ronald L. Batory
Administrator
Federal Railroad Administration

Panel II

Dennis R. Pierce
President
Brotherhood of Locomotive Engineers and Trainmen

John Previsich
President
SMART Transportation Division

Jerry C. Boles
President
Brotherhood of Railroad Signalmen

Andrew W. Sandberg
Assistant to the President
Directing General Chairman
District Lodge 19
International Association of Machinists and Aerospace Workers

William Gonzalez
President
Amtrak Police Fraternal Order of Police Labor Committee

Ian Jefferies
President & CEO
Association of American Railroads