# American railroads face employment crisis amid automation advances



American railroads are navigating a complex employment crisis amid significant advancements in automation and technology. As industry leaders seek to attract younger job seekers to replace an aging workforce, they are competing fiercely with other sectors within the supply chain for a dwindling pool of talent. This issue emerged during a recent panel discussion at the Transportation Research Board’s 104th annual meeting in Washington, D.C., a five-day conference dedicated to multimodal transportation research and practices.

Panelist Peter Swan, who has an extensive background as a former railroader and retired professor at Penn State, highlighted the ongoing transformation within the rail industry, particularly concerning the nature of trades-type jobs. He underscored the shift in management practices from a focus on people to a reliance on automated systems. “There has been a shift in management from people to systems,” Swan commented. “Automation in track maintenance, equipment and operations means skill degradation for the ‘blue collars’.”

This transition is already influencing various operational aspects, particularly in track and train inspections. Manual track inspection processes are increasingly being supplanted by advanced sensor technologies, while car inspections are being automated entirely. Furthermore, the role of locomotive engineers is evolving; there is a potential future where their positions may become obsolete as operational systems adopt a more automated structure. Swan noted that the shift to longer trains run with distributed power presents complexities in handling that could diminish the importance of traditional engineering skills.

The implications of this trend extend beyond labour dynamics, as the railroads contend with the challenge of maintaining skilled workers in a technology-driven industry. The Transportation Research Board conference continues through Thursday, highlighting the critical discussions surrounding the necessity of adapting to rising trends in automation and its impact on workforce development in the rail sector.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Corroborates the employment crisis in American railroads, the need to attract young job seekers, and the impact of automation on trades-type jobs.
2. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Supports the shift in management from people to automated systems, and the specific examples of automation in track maintenance, equipment, and operations.
3. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Details the replacement of manual track inspections with sensor technologies and the automation of car inspections, as well as the evolving role of locomotive engineers.
4. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Discusses the complexities of handling longer trains with distributed power and its impact on traditional engineering skills.
5. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Highlights the critical discussions at the Transportation Research Board’s 104th annual meeting about adapting to automation trends and their impact on workforce development.
6. <https://www.trains.com/trn/news-reviews/news-wire/what-wall-street-analysts-are-asking-and-railroads-are-saying-going-into-2025-analysis/> - Provides context on the challenges railroads face in 2025, including labor costs, productivity improvements, and the impact of automation on workforce dynamics.
7. <https://www.trains.com/trn/news-reviews/news-wire/what-wall-street-analysts-are-asking-and-railroads-are-saying-going-into-2025-analysis/> - Details the efforts of railroads like UP and Norfolk Southern to improve productivity and manage labor costs in the face of technological changes.
8. <https://www.trains.com/trn/news-reviews/news-wire/what-wall-street-analysts-are-asking-and-railroads-are-saying-going-into-2025-analysis/> - Explains the focus on service improvements, cost control, and the impact of macroeconomic factors on railroads' operations and workforce strategies.
9. <https://ble-t.org/news/project-2025-would-eliminate-two-person-train-crew-regulation-cut-rail-safety-inspections/> - Mentions potential regulatory changes and their impact on rail safety and workforce, particularly concerning two-person train crew regulations and safety inspections.
10. <https://ble-t.org/news/project-2025-would-eliminate-two-person-train-crew-regulation-cut-rail-safety-inspections/> - Highlights the concerns of unions and working families regarding the proposed changes in rail safety regulations and inspections.
11. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Supports the need for railroads to hire and retain engineers in various fields such as mechanical, electrical, and industrial information technology to adapt to technological advancements.
12. <https://www.freightwaves.com/news/railroads-dilemma-the-good-jobs-no-one-knows-about> - Please view link - unable to able to access data