



10338 Miller Road  
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**MARGARET KOPREK**  
**SENIOR CONSULTANT**

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Margaret Koprek is an Industrial Engineer and Senior Consultant for ESi. Prior to joining ESi, Ms. Koprek enjoyed 17 years in Class 1 railroad operations, including experience in Engineering, Mechanical, Labor Relations and Human Resources departments. Ms. Koprek has expertise in wayside technologies, operational efficiencies, technical training, and talent development. Ms. Koprek earned recognition for excellence in safety performance via peer-reviewed white papers.

Ms. Koprek developed, deployed, and implemented hundreds of wayside technologies in her time with BNSF Railway, the largest Class 1 Railroad globally. Ms. Koprek managed thousands of root cause investigations for mechanical equipment and process failures via metallurgical analysis and predictive, prescriptive, and descriptive analytics. In this capacity, Ms. Koprek has experience providing depositions and testimony.

Ms. Koprek routinely worked with federal agencies and industry associations to advance detector protocol, training, use and access. Ms. Koprek served as a Corporate Representative on a variety of industry committees related to detector performance and data usage.

Ms. Koprek maintains expertise in mechanical and engineering components, including freight car and locomotive wheels, axles, and bearings as well as air brake performance.

Ms. Koprek has expertise in analysis and visualization for large data sets. Ms. Koprek has expertise in causal and trend analysis for root cause evaluation using multiple applications such as Power BI and Tableau. Ms. Koprek applies the tools of LEAN and Six Sigma to reduce costs and improve efficiency.

Ms. Koprek has more than a decade of experience in curriculum design and instruction, including leadership development. Ms. Koprek is passionate about developing leaders who lead teams that value safety and productivity to solve critical business problems.

As a leader, Ms. Koprek had operational and financial responsibility over teams and funds in multiple departments. Ms. Koprek was involved in ownership of multiple policies and processes to positively impact safety, velocity and reliability.

## **Areas of Specialization**

### Data Collection

- Analysis of Reliability Data
- Reliability Modeling and Simulation

### Data Visualization

- Statistical Analysis and Probability Modeling
- Sampling Plans and Data Collection
- Reliability Testing

### Executive Leadership



Leadership Development

Instructional Design

Material Science

Metallurgical Failure Analysis

Rail Operations,

Safety and Rules

Accident/Incident Investigation

Root Cause Analysis

Risk Analysis/Pre-Loss Audit

Environmental Health and Safety

Failure Analysis

Derailment Cause Analysis

Component Evaluations

Locomotive and Vehicle Data Analysis

Personal Injury Investigation

Product and Process Safety and Reliability Analysis

## **Education**

Master of Science, Industrial Engineering, St. Mary's University, San Antonio, TX

Master of Education, Curriculum & Instruction, Texas A&M University, College Station, TX

Bachelor of Science, Biomedical Science, Texas A&M University, College Station, TX

## **Positions Held**

Engineering Systems Inc., Dallas, Texas

Senior Consultant, 2024 – Present

BNSF Railway, Fort Worth, Texas

Director, Talent Development and Onboarding 2022 – 2024

Director, Labor Agreement Technology, 2018 – 2022

Manager, Reliability Engineering, 2011 – 2018

Manager Equipment Operations, 2009 – 2011

BNSF Railway, Kansas City, Missouri

Mechanical Foreman, 2007 – 2009



## **Continued Education**

International Coaching Federation Associate Certified Coach, 2025

Certified Professional in Talent Development (ATD), 2022

## **Board Experience**

TRI COUNTY ELECTRIC COOPERATIVE, Aledo, Texas, NRECA Credentialed Director and Secretary/Treasurer, 2021-2024.

BNSF RAILWAY, Fort Worth, Texas, Women's Network Executive Board, 2018 – 2023.

THE BIKE GANGS OF FORT WORTH, Fort Worth, TX, Founding Member 2016 and Vice President, 2018 – 2022.

## **Awards**

Employee of the Year Achievement Award: DEI, 2021

Employee Achievement Award (and IAAA International Finalist): Train Matching Improvements, 2017

Employee of the Year Achievement Award: Expert Witness Testimony, 2013

Outstanding President Toastmasters, District 25, Area 54, 2013