



# The Transportation Security Index

TECHNOLOGY NUMBER: 2024-502

## OVERVIEW

Survey-based tool measuring transportation insecurity symptoms and severity

- Focuses on symptoms, avoiding cataloging all possible influencing factors
- Applies to policy assessment, urban planning, transportation research, social services allocation

## INNOVATION

The Transportation Security Index (TSI) offers a novel approach to measuring transportation insecurity by focusing on its symptoms rather than attempting to catalog all influencing factors. Modeled after the Food Security Index, the TSI is based on extensive qualitative research, including ethnographic studies and 187 interviews, to capture the lived experiences of those facing transportation insecurity. This 16-question survey assigns respondents a continuous score or categorizes them into various levels of insecurity, from none to high. An abbreviated 6-item version (TSI-6) has also been developed and validated, delivering comparable performance. Real-world applications of the TSI include policy assessment, urban planning, transportation research, and the allocation of social services. By providing a standardized measure, the TSI enables more effective identification, analysis, and mitigation of transportation insecurity across diverse populations.

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## Category

MOSS - Michigan Open Source  
Software

## Learn more



**Project Links**      • [TSI project website](#)

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**Department/lab**      [Alex Murphy](#)

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**Target audience**      • Transportation security researchers  
• Policymakers

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**Seeking**      • Users  
• Industry partners

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