The impact of reliability on the productivity of railroad companies

This paper studies the relationship between reliability (proxied by punctuality) and productivity in passenger railroad services. Increasing reliability may lower productivity, as it requires inputs, that can’t be used to produce outputs. The relationship between reliability and productivity also runs through other factors, in which case a positive relationship may be expected. We apply data envelopment analysis and the Malmquist index approach to a panel of seven European railway systems to explore this relationship. Our empirical results suggest that increasing reliability does not harm the productivity of railway operations and aiming to improve both may be a feasible strategy.

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