

Gerard McCullough

Associate Professor

Appointment

50% Research, 50% Teaching

Education

- Ph.D., MIT
- M. S., MIT
- B.A., Georgetown University



Appointment History

- Visiting Professor, National Defense University, Washington, DC 2006-07
- Associate Professor with Tenure, 2003
- Director, Minnesota Center for Transportation Studies 1996 - 2000
- Associate Professor, 1996

Selected Honors and Awards

- Departmental Nomination, Distinguished Teaching Award 2001, 2002, 2003
- University of Minnesota Faculty Ambassador 1997, 1998, 1999
- Shell Fellow MIT 1991 1992

Research Program

- Transportation Economics
- Regulatory Economics
- Energy Economics

Resident Teaching and Advising

- PhD Level Applied Econometrics
- MS Level Econometric Analysis
- MS Level Energy Economics

Selected External Activities and Professional Service (2000-present)

- Organizer and Member of Scientific Committee, International Conference on Railroad Industry Structure, Competition and Investment 2003 - 2007
- Member National Academy of Science Panel for Review of Federal Railroad Administration Research and Development Programs 2002 - 2007
- Transportation Research Board Committee on Freight Economics 2002 - 2006

Professional and Broader Impacts

- Advisor to World Bank, USDOT, national and international railroads on rail costing and intermodal competition. Work on rail mergers presented to Department of Justice seminar on economic analysis.
- Econometric work on returns to density on rail networks was the sole academic work cited by Surface Transportation Board in landmark Ex Parte 657 decision on pricing.
- Econometric work on rail-truck competition adopted by the FHWA in its multi-volume 2000 Truck Size and Weight Study.

Publications

Most Significant

Ivaldi, M. and G. McCullough. "Subadditivity Tests for Network Separation Using a Generalized McFadden Cost Function." *Review of Network Economics: Special Issue on Railroad Industry Structure, Competition and Investment*. April 2008.

Ivaldi, M., and G. McCullough. "Welfare Tradeoffs in U.S. Rail Mergers." Center for Economic Policy Research (CEPR) *CEPR Discussion Paper 5000* London, England. March, 2005. [Revise and Resubmit] *American Economic Review*.

Ivaldi, M. and G. McCullough. "Density and Integration Effects on Class I U.S. Freight Railroads" *Journal of Regulatory Economics* March, 2001, pp. 161-182.

Friedlaender, A., E. Berndt and G. McCullough. "Governance Structure, Managerial Background and Economic Performance in the Deregulated Rail Industry." *Brookings Papers on Economic Activity*, Spring 1992. pp. 95-183.

Most Recent

G. McCullough. "Analysis of the Uniform Rail Costing System." *Surface Transportation Board Ex Parte 431-3*. April, 2009. <http://www.stb.dot.gov/filings/all.nsf/>

Ivaldi, M. and G. McCullough. "Subadditivity Tests for Network Separation Using a Generalized McFadden Cost Function." *Review of Network Economics: Special Issue on Railroad Industry Structure, Competition and Investment*. April, 2007.

McCullough, G.J. "Railroad Pricing and Revenue-to-Cost Margins in the Post-Staggers Era" in *Advances in Railroad Economics* Elsevier, August, 2007.

McCullough, Gerard J. "The Liberalization of European Rail Transport: An American View." *Review of European Economic Policy*. Volume 41, Number 6. November/December 2006. pp. 311-314.

McCullough, Gerard J. "U.S. Railroad Efficiency: An Economic View" in *Conference Proceedings XX: Research to Enhance Rail Network Performance*. Transportation Research Board of the National Academies, Washington, DC 2006, pp. D2-D21.
www.trb.org/conferences/railworkshop/background-McCullough.pdf

External Funding (2000-present)

2006	U.S. Department of Agriculture "Modeling and Analysis of Transportation System Requirements For Agricultural Commodities and Biomass for Food, Fuel, and Raw Materials" [Co-PI with Assoc. Prof. Jerry Fruin]	\$250,000*
2003	Association of American Railroads Trucking Efficiency versus Transportation Efficiency: An Economic Evaluation of TRB Special Report 267 [PI]	\$100,000
2002	Metropolitan Airport Commission "Characteristics of the Demand for Freight Transportation at MSP Airport." [PI]	\$100,000
2002	Minnesota Department of Transportation "Economic Valuation of the of Minnesota Highway Transportation Network" [PI]	\$48,644
2001	Association of American Railroads "Evaluation of Railroad Cost Structures and Implications for Open Access" [PI]	\$150,000
2001	U.S. Department of Agriculture "Agricultural and Rural Transportation Systems Analysis and Data Base Development" [Co-PI with Assoc. Prof. Jerry Fruin]	\$250,000*
2001	Minnesota Department of Transportation "Economic Estimates of Automobile and Truck Operating Costs" [PI]	\$41,698
2000	Association of American Railroads "Evaluation of State Transportation Agency Ability to Estimate Full Costs of Highway Operations" [PI]	\$50,000

*Estimated value. Multi-year grant covers allocated salary and overhead.