DAN WEI

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Education

Ph.D.	(Geography)	The Pennsylvania State University	2007
M.S.	(Public Policy and Management)	Tsinghua University	2002
B.E.	(Engineering Physics)	Tsinghua University	1999

Academic and Professional Positions

Research Associate Professor, Sol Price School of Public Policy, University of Southern California	July 2018-present
Research Fellow, Center for Risk and Economic Analysis of Terrorism Events, University of Southern California	2017-present
Faculty Fellow, Schwarzenegger Institute for State and Global Policy, University of Southern California	2018-present
Research Assistant Professor, Sol Price School of Public Policy, University of Southern California	December 2010-June 2018
Postdoctoral Research Associate, School of Policy, Planning, and Development, University of Southern California	July 2008-December 2010
Postdoctoral Fellow, School of Policy, Planning, and Development, University of Southern California	September 2007-June 2008

Peer-Reviewed Journal Articles

- 1. Rose, A., **Wei, D.**, Byrd, K., and John, R. 2021. "Economic Impacts of Spillover Effects of Terrorism Countermeasures at Public Assembly Sites," *Journal of Homeland Security and Emergency Management*, forthcoming.
- 2. Weaver, G., Feddersen, B., Wei, D., Marla, L., Rose, A., and Salo, G. 2021. "Estimating Economic Losses from Cyber-Attacks on Shipping Ports: An Optimization-Based Approach with Case Study," submitted to *Transportation Research Part E: Logistics and Transportation Review*, forthcoming.
- Rose, A., Walmsley, T., and Wei, D. 2021. "Spatial Transmission of the Economic Impacts of COVID-19 through International Trade," *Letters in Spatial and Resource Sciences* 14(2): 169-196. <u>https://link.springer.com/article/10.1007/s12076-021-00271-8</u>
- Walmsley, T., Rose, A., and Wei, D. 2021. "Impacts on the U.S. Macroeconomy of Mandatory Business Closures in response to the COVID-19 Pandemic," *Applied Economics Letters* 28(15): 1293-1300. <u>https://doi.org/10.1080/13504851.2020.1809626</u>
- Walmsley, T., Rose, A., and Wei, D. 2021. "The Impacts of the Coronavirus on the Economy of the United States," *Economics of Disasters and Climate Change* 5: 1-52. <u>https://link.springer.com/article/10.1007/s41885-020-00080-1</u>

- Koc, E., Cetiner, B., Rose, A. Soibelman, L., Taciroglu, E., and Wei, D. 2020. "CRAFT: Comprehensive Resilience Assessment Framework for Transportation Systems in Urban Areas," *Advanced Engineering Informatics* 46: 101159: 1-20. DOI: 10.1016/j.aei.2020.101159
- 7. Wei, D., Chen, Z., and Rose, A. 2020. "Evaluating the Role of Resilience in Recovering from Major Port Disruptions," *Papers in Regional Science*, DOI: 10.1111/pirs.12553: 1-32.
- 8. Rose, A., Ganderton, P., Eyer, J., Wei, D., von Winterfeldt, D., and Bostic, R. 2020. "Analysis of a Deductible Formula for FEMA Post-Disaster Public Assistance," *Journal of Environmental Planning and Management* 63(12): 2163-2193. DOI: 10.1080/09640568.2019.1706461.
- Rose, A. and Wei, D. 2019. "Impacts of the Property Assessed Clean Energy (PACE) Program on the Economy of California," *Energy Policy* 137: 1-13. <u>https://doi.org/10.1016/j.enpol.2019.111087</u>.
- 10. Wei, D., Chen, Z., and Rose, A. 2019. "Estimating Economic Impacts of the US-South Korea Free Trade Agreement," *Economic Systems Research* 31(3): 305-323.
- 11. Rose, A., **Wei, D**., and Paul, D. 2018. "Economic Consequences of a Disruption of Oil Imports: The Role of Seaports in U.S. Energy Security," *Energy Policy* 115: 584-615.
- 12. Rose, A., **Wei, D.**, Miller, N., Vandyck, T., and Flachsland, C. 2018. "Policy Brief—Achieving Paris Climate Agreement Pledges: Alternative Designs for Linking Emissions Trading Systems," *Review of Environmental Economics and Policy* 12(1): 170-182.
- Rose, A. and Wei, D. 2017. "The Effect of Foregone Productivity Improvements in the Estimation of Macroeconomic Impacts of Greenhouse Mitigation Investment," *Journal of Sustainable Energy Engineering* 5(4): 258-280.
- 14. Rose, A., **Wei, D.**, Miller, N., and Vandyck, T. 2017. "Equity, Emissions Allowance Trading, and the Paris Agreement on Climate Change," *Economics of Disasters and Climate Change* 1(3): 203-232.
- Lawrence, M., Wei, D., Rose, A., Williamson, S., and D. Cartwright-Smith. 2017. "Macroeconomic Impacts of Proposed Climate Change Mitigation Strategies for Transportation in Southern California," *Research in Transportation Economics* 61: 56-69.
- 16. Wei, D., Brugues, A., Rose, A., de la Parra, C., Gacia, R., and Matinez, F. 2017. "Climate Change and the Economy in Baja California: Assessment of Macroeconomic Impacts of the State's Climate Action Plan," *Ecological Economics* 131: 373-388.
- 17. Prager, F., Wei, D., and Rose, A. 2016. "Total Economic Consequences of an Influenza Outbreak in the United States," *Risk Analysis* 37(1): 4-19.
- 18. Wei, D. and Rose, A. 2016. "Evaluating Modeling Approaches for Analyzing Macroeconomic Impacts of Microgrid Projects," *Journal of Sustainable Energy Engineering* 4(2): 127-181.
- Yeh, S., Yang, C., Gibbs, M., Roland-Holst, D., Greenblatt, J., Mahone, A., Wei, D., Brinkman, G., Bushnell, J., Cunningham, J., Eggert, A., Goulder, L., Haley, B., Hart, E., and Williams, J. 2016. "A Modeling Comparison of Deep Greenhouse Gas Emissions Reduction Scenarios by 2030 in California," *Energy Strategy Review* 13-14: 169-180.
- 20. Rose, A., Sue Wing, I., Wei, D., and Wein, A. 2016. "Economic Impacts of a California Tsunami," *Natural Hazards Review* 17(2): 1-12.
- Prager, F., Rose, A., Wei, D., Roberts, B., and Baschnagel, C. 2015. "Economywide Impacts of Reduced Wait Times at U.S. International Airports," *Research in Transportation Business & Management* 16: 112-120.

- 22. Wei, D., Dormady, N., and Rose, A. 2015. "Development of Reduced-Form Models to Evaluate Macroeconomic Impacts of Greenhouse Gas Mitigation," *Journal of Sustainable Energy Engineering* 2(4): 377-397.
- 23. Nelson, H., Rose, A., **Wei, D.**, Peterson, T., and Wennberg, J. 2015. "Intergovernmental Climate Change Mitigation Policy: Theory and Outcomes," *Journal of Public Policy* 35(1): 97-136.
- Roberts, B., Rose, A., Heatwole, N., Wei, D., Avetisyan, M., Chan, O., and Maya, I. 2014. "The Impact on the U.S. Economy of Change in Wait Times at Ports of Entry," *Transport Policy* 35: 162-175.
- Delaquil, P., Goldstein, G., Nelson, H., Peterson, T., Roe, S., Rose, A., Wei, D., and Wennberg, J. 2014. "Developing and Assessing Economic, Energy and Climate Security and Investment Integration Options for the U.S.," *Low Carbon Economy* 5.
- Wei, D. and Rose, A. 2014. "Macroeconomic Impacts of the California Global Warming Solutions Act on the Southern California Economy," *Economics of Energy and Environmental Policy* 3(2): 101-118.
- 27. Rose, A. and Wei, D. 2013. "Estimating the Economic Consequences of a Port Shutdown: The Special Role of Resilience," *Economic Systems Research* 25(2): 212-232.
- Rose, A., Wei, D., and Prager, F. 2012. "Distributional Impacts of Greenhouse Gas Emissions Trading: Alternative Allocation and Recycling Strategies in California," *Contemporary Economic Policy* 30(4): 603-617.
- 29. Rose, A. and Wei, D. 2012. "Macroeconomic Impacts of the Florida Energy and Climate Change Action Plan," *Climate Policy* 12(1): 50-69.
- 30. Rose, A., Wei, D., and Dormady, N. 2011. "Regional Macroeconomic Assessment of the Pennsylvania Climate Action Plan," *Regional Science Policy and Practice* 3(4): 357-379.
- 31. Rose, A., Wei, D. and A. Wein. 2011. "Economic Impacts of the ShakeOut Scenario," *Earthquake Spectra* 27(2): 539-557.
- 32. Wei, D. 2010. "Regional Classification to Enhance Equity and Efficiency in Energy Policy: The Case of Energy Conservation In China," *Environment and Planning A* 42(1): 153-168.
- Rose, A., Wei, D., Wennberg, J., and Peterson, T. 2009. "Climate Change Policy Formation in Michigan: The Case for Integrated Regional Policies," *International Regional Science Review* 32(4): 445-465.
- 34. Wei, D. and Rose, A. 2009. "Interregional Sharing of Energy Conservation Targets in China: Efficiency and Equity," *The Energy Journal* 30(4): 81-111.
- 35. McKinstry, R.B., Peterson, T.D., Rose, A., and **Wei, D.** 2009. "The New Climate World: Achieving Economic Efficiency in a Federal System for GHG Regulation through State Planning," *North Carolina Journal of International Law and Commercial Regulation* 34(3): 767-850.
- 36. Rose, A. and Wei, D. 2008. "Greenhouse Gas Emissions Trading Among Pacific Rim Countries: An Analysis of Policies to Bring Developing Countries to the Bargaining Table," *Energy Policy* 36: 1420-1429; reprinted as Chapter 20 in Rose, A. (ed.) *The Economics of Climate Change Policy*. Cheltenham, UK: Edward Elgar Publishing.

<u>Books</u>

37. Rose, A., Prager, F., Chen, Z., Chatterjee, S., Wei, D., Heatwole, N., and Warren, E. 2017. Economic Consequence Analysis of Disasters – The E-Cat Software Tool. Springer Singapore.

Book Chapters

- 38. Rose, A, Chen, Z., and Wei, D. 2020. "Estimating U.S. Anti-Dumping/Countervailing (AD/CVD) Duty Enforcement Benefits", in Z. Chen et al. (eds.), *Development Studies in Regional Science: Essays in Honor of Kingsley E Haynes*. Singapore: Springer.
- Rose, A., Wei, D., and Bento, A. 2018. "Equity Implications of the COP21 Intended Nationally Determined Contributions to Reduce Greenhouse Gas Emissions", Chapter 4 in Kanbur, R. and Shue, H. (eds.) *Climate Justice: Integrating Economics and Philosophy*. Oxford, UK: Oxford University Press.
- Roberts, B., Rose, A., Heatwole, N., Wei, D., Avetisyan, M., Prager, F., Baschnagel, C., and Maya, I. 2017. "Economic Impacts of Changes in Wait Times at U.S. Ports of Entry," in Abbas, A., Tambe, M., and Detlof, W. (ed.) *Improving Homeland Security Decisions*. New York, NY: Cambridge University Press.
- 41. Rose, A., Wei, D., Wennberg, J., and Peterson, T. 2009. "Climate Change Policy Formation in Minnesota: The Case for a Regional Approach," Chapter 30 in Rose, A. (ed.) *The Economics of Climate Change Policy*. Cheltenham, UK: Edward Elgar Publishing.
- 42. Rose, A., Asay, G., **Wei, D.**, and Leung, B. 2009. "Macroeconomic Impacts of Shutting Down the U.S. Borders in Response to a Security or Health Threat," Chapter 13 in H. Richardson, P. Gordon, and J. Moore, II (eds.) *Global Business and The Terrorist Threat*. Cheltenham, UK: Edward Elgar Publishing.

Other Peer-Reviewed Publications

43. Rose, A., Wei, D., Miller, N., and Flachsland, C. 2017. "The G20 Countries Should Lead the Way in Designing and Participating in a Greenhouse Gas Emissions Allowance Trading System that Will Provide Adequate Financing to Enable Low-Income Countries to Meet their COP21 Pledges," T20 Policy Brief, March 30, 2017.

Peer-Reviewed Conference Proceedings

- 44. Orosz, M., Salazar, D., Chatterjee, S., Wei, D., Chen, J., Maya, I. 2013. "Protecting our Nation's Ports with the Port Security Risk Analysis and Resource Allocation System (PortSec 3.0)," *IEEE Technologies for Homeland Security 2013 Conference Proceedings*: pp. 38-42.
- 45. Lennon, E., Orosz, M., Kichkaylo, T., Maya, I., Wei, D. 2012. "PortSec2.0: The Next Generation," *IEEE Technologies for Homeland Security 2012 Conference Proceedings*: pp. 255-259.

Working Papers

- Wei, D. and Giuliano, G. 2021. "Economic Impacts of Electrification of Cargo Handling Equipment at Port of Los Angeles and Port of Long Beach."
- Walmsley, T., Machado, J., Wei, D., and Rose, A. 2021. "Economic Impacts of COVID-19 Stimulus Packages."
- Wei, F., Koc, E., Li, N., Soibelman, L., and **Wei, D.** 2021. "A Data-Driven Framework to Evaluate the Indirect Economic Impacts of Transportation Infrastructure Disruptions."
- Rose, A., Wei, D., and Einbinder, A. 2021. "California's Offshore Wind Electricity Opportunity."

Wei, D. and Rose, A. 2021. "Economic Impact Analysis of Offshore Wind Development in California."

- Walmsley, T., John, R., **Wei, D.**, Hlávka, J., Rose, A., Machado, J., Byrd, K., Kinoshita, A., and Noor, B. 2021. "Macroeconomic Consequences of the COVID-19 Pandemic."
- Hlávka, J., Walmsley, T., **Wei, D.**, Maskery, B., Rose, A. and Joo, H. 2021. "Estimating the Effects of International Traveler Monitoring on Health Outcomes and U.S. Health System Capacity during Early Stages of the COVID-19 Pandemic."
- Wei, D., Rose, A., Koc, E., Chen, Z., and Soibelman, L. 2021. "Aggregate and Distributional Impacts of Resilience to Seaport and Highway Transportation Network Disruption," submitted to *Transportation Research D.*
- Rose, A., **Wei, D.**, Machado, J., and Spencer, K. "Benefit-Cost Analysis of the Flood Inundation Sensors," to be submitted to *Natural Hazards Review*.
- Wei, D., Rose, A., and Machado, J. "Benefit-Cost Analysis of the National Resilience Standards for Floodproofing Products".
- Wei, D. and Rose, A. "Economic Impacts of the California Institute for Regenerative Medicine (CIRM)."
- Sue Wing, I., Wei, D., Rose, A., and Wein, A. "Economic Consequences of the HayWired Earthquake Scenario".
- Wei, D., Rose, A., and Lahr, M. "Analysis of Economic Impacts of the Earthquake Scenarios in British Columbia and Quebec".
- Rose, A., Sue Wing, I., **Wei, D.**, and Avetisyan, M. "Total Regional Economic Losses from Water Supply Disruptions to the Los Angeles County Economy".

Non-Refereed Articles

Wei, D. and Chen, W.Y. 2001. "Analysis of Energy Conservation and Its Impacts on Environment of Beijing," *Academic Communication*, School of Public Policy and Management, Tsinghua University. (in Chinese)

Funded Research

- 1. PI. Economic Analysis and Review of Commercial Vehicle Road User Charges. Caltrans. August 2021 August 2022. \$120,348.
- Co-PI. Implementation of Action 6 of the California Sustainable Freight Action Plan (CSFAP) and California Freight Mobility Plan (CFMP) Phase 4: Tracking Economic Competitiveness. Caltrans. August 2021 – December 2022. \$310,089.
- Co-Investigator. Modeling the Impact of Complex, Multi-Vector Disruptions to the Marine Transportation System and Supply Chains. DHS Center for Accelerating Operational Efficiency (CAOE). July 2021 – June 2022. \$232,500.
- 4. Co-Investigator. Power Outage Economics Tool (POET). LBNL Berkeley. November 2020 June 2022. \$62,000.
- 5. PI. Analysis on California's Offshore Wind Opportunity. American Wind Energy Association, Offshore Wind California, and Energy Foundation. July 2020 October 2020. \$50,000.
- Co-PI. The Impacts of the Coronavirus on the Economy of the United States: In-Depth Considerations of Health Effects, Avoidance Behavior, Resilience, and International Trade Linkages. DHS Center for Accelerating Operational Efficiency (CAOE). July 2020 – June 2021. \$245,000.

- 7. Co-PI. Technical Support for the Regulatory Impact Analysis of the Traveler Contact Data Collection Final Rule. CDC. June 2020 September 2020. \$75,000.
- 8. Co-Investigator. Landscape III: COE Research and Development Comprehensive Impact Study. DHS. June 2020 November 2021. \$148,441.
- 9. Co-PI. The Impacts of the Coronavirus on the Economy of the United States. DHS Center for Accelerating Operational Efficiency (CAOE). March 2020 June 2020. \$50,000
- 10. Co-PI. California Renewable Electricity PPA Project. Alliance for Climate Resistant California. July 2019 February 2020. \$80,172.
- Co-Investigator. Implementation of Action 6 of the California Sustainable Freight Action Plan Phase
 3: Tracking Economic Competitiveness. Caltrans. November 2019 May 2021. \$275,000
- 12. PI. Socioeconomic Dimensions of Resilience to Seaport and Highway Transportation Network Disruptions. METRANS/Caltrans. January 2019 March 2020. \$99,600.
- 13. Co-PI. Collaborative Research: Edge Computing to Improve Reliability and Resilience of Interdependent Systems. NSF. January 2019 December 2021. \$250,000.
- 14. Co-PI. The City of Los Angeles 100% Renewable Energy Study. NREL/LADWP. August 2018 February 2021. \$220,000.
- Co-Investigator. Economic Impacts of the California Institute for Regenerative Medicine (CIRM). CIRM. July 2018 – December 2018. \$55,000.
- Co-PI. Policy Analysis of the Impacts of the PACE Program. Ygrene Energy Fund. July 2018 December 2018. \$89,000.
- Co-PI. Does Enhanced Security Improve Business Performance? DHS. August 2017 August 2018. \$300,000.
- 18. Co-Investigator. Strategic Resource Assessment for US Land Ports of Entry. Customs and Border Protection, DHS. September 2016-September 2020. \$2,400,000 for four years, first year \$750,000.
- 19. PI. Economic Analysis for SAFRR Tsunami and HayWired Scenarios. USGS. September 2015-August 2017. \$44,999.
- 20. Co-PI. NY Prize Microgrid: Macroeconomic Modeling Plan. New York State Energy Research & Development Authority (NYSERDA). May 2016-October 2016. \$49,878.
- 21. PI. Development of an Economic Framework to Evaluate Resilience in Recovering from Major Port Disruptions. METRANS. August 2015-August 2016. \$78,148.
- 22. Co-Investigator. Analysis of a Deductible Formula for FEMA Post-Disaster Public Assistance. FEMA. June 2015-March 2016. \$213,319.
- Co-Investigator. Sharpening Expertise Initiative: A Research and Development Study of the Education, Training and Workforce Development Needs of the Global Supply Chain Community. CBP. March 2015-October 2015. \$15,026 allocated to me.
- 24. PI. Evaluation of Economic Impacts of The EXPO Center: Contributing to the Los Angeles County Economy. The Friends of the EXPO Center. February 2015-June 2015. \$9,968.
- PI. Haywired Scenario: Economic Consequence Modeling. USGS. September 2014-February 2015. \$24,950.
- 26. Co- Investigator. Economic Impact of CBP's CEE's and Trade Mission, Phase II. DHS/CBP. August 2014-July 2015. \$900,000.
- 27. Co- Investigator. Collaborative Research: An Integrated Approach to Measuring Economic Resilience Following Disasters. NSF. August 2014-July 2016. \$266,005.
- 28. Co- Investigator. CBP Border Wait Time Study II. DHS/CBP. October 2013-June 2014. \$200,000.
- 29. Co- Investigator. Value of Information and Economic Analysis to Improve Biosurveillance:

Integrating Insights from Economic Models into Biosurveillance Analysis. DHS/NBIC. September 2013-May 2014. \$300,000.

- 30. Co- Investigator. Modeling the Temporal and Spatial Consequences of Nuclear and Radiological Terrorism Events. DHS/DNDO. September 2013-September 2014. \$275,000.
- 31. PI. Indirect Economic Impacts of Earthquakes in British Columbia and Quebec. Insurance Bureau of Canada (sub-contract through AIR Worldwide). February 2013-June 2013. \$33,158.
- Co- Investigator. CBP Border Wait Time Study. DHS/CBP. October 2012-September 2013. \$200,000.
- 33. PI. Macroeconomic Impacts of Climate Action Planning in China and Mexico. Center for Climate Strategies (CCS). July 2012-December 2014. \$63,000.
- Co- Investigator. Total Regional Economic Losses from Water Supply Disruptions: Analysis for Los Angeles County. Woodbury University (coordinating funding from LADWP, MWD and other local water agencies). May 2012-August 2012. \$52,404.
- 35. PI. Economic Impact Analysis of Sea Level Rise for the City of Los Angeles. USC Sea Grant. February 2012-January 2013. \$11,460.
- 36. Co-PI. Macroeconomic Impacts of Climate Action Planning. CCS. July 2011-June 2012. \$89,500.
- 37. PI. China Climate Change Policy Capacity. CCS. April 2011-December 2011. \$15,000.
- Co-PI. Macroeconomic Impacts of Greenhouse Gas Mitigation Options for New York State. New York State Energy Research and Development Authority (NYSERDA). February 2011-June 2011. \$46,000.
- 39. Co- Investigator. Measuring Economic Risk Benefits of USCG Marine Safety Programs. USCG-DHS. November 2010-September 2011. \$150,000.
- 40. Co-PI. Climate Change in China: capacity building and facilitation of Guangdong low-carbon development planning. CCS. October 2010-December 2010. \$14,000.
- Co-Investigator. Socioeconomic Impact and Regional Competitiveness Analysis of AB32/SB375. Southern California Association of Governments (SCAG) (sub-contract through CCS). May 2010-December 2012. \$39,464.
- 42. Co-Investigator. Energy and Climate Change. CCS. July 2009-December 2010. \$170,000.
- Co-Investigator. GHG Emission Abatement Cost Curves and Macro Economic Impact Analysis of Mitigation Options for New York State. NYSERDA (sub-contract through CCS). September 2008-June 2012. \$47,000.

Research Reports

- 1. Walmsley, T., John, R., **Wei, D.**, Hlávka, J., Rose, A., Machado, J., Byrd, K., Kinoshita, A., and Noor, B. 2021. *Macroeconomic Consequences of the COVID-19 Pandemic*. Final Report submitted to Center for Accelerating Operational Efficiency (CAOE), Arizona State University.
- 2. Wei, D. and Giuliano, G. 2021. *Economic Impacts of Electrification of Cargo Handling Equipment at Port of Los Angeles and Port of Long Beach*. A Research Report from the Pacific Southwest Region University Transportation Center.
- 3. Giuliano, G., Vindrola, E., and **Wei, D.** 2021. *Economic Competitiveness Metrics Annual Report*. A Research Report from the Pacific Southwest Region University Transportation Center.
- Rose, A., Wei, D., and Einbinder, A. 2021. *California's Offshore Wind Electricity Opportunity*. USC Schwarzenegger Institute for State and Global Policy. http://schwarzeneggerinstitute.com/images/files/OSW Report.pdf.

- 5. Wei, D. and Rose, A. 2021. *Economic Impact Analysis of Offshore Wind Development in California*. USC Schwarzenegger Institute for State and Global Policy.
- Keyser, D., H. Cutler, A. Rose, D. Wei, and M. Shields. 2021. "Chapter 11: Economic Impacts and Jobs." In The Los Angeles 100% Renewable Energy Study, edited by Jaquelin Cochran and Paul Denholm. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444-11. <u>https://www.nrel.gov/docs/fy21osti/79444-11.pdf</u>.
- 7. Wei, D. and Papaefthymiou, K. 2021. *Demographic and Economic Characteristics of Local Regions for 128 CBP Land Ports of Entry*. Report to U.S. Customs and Border Protection.
- 8. Rose, A., T. Walmsley, J. Hlávka, **D. Wei**, B. Roberts, B. Maskery, and H. Joo. 2020. *CDC Proposed Contact Tracing Rule Study*. Report to Centers for Disease Control and Prevention.
- 9. Walmsley, T., Rose, A., and **Wei, D.** 2020. *The Impacts of the Coronavirus on the Economy of the United States*. Report submitted to U.S. Department of Homeland Security Center for Accelerating Operational Efficiency (CAOE).
- Sue Wing, I., Wei, D., Rose, A., and Wein, A. 2020. "Economic Consequences of the HayWired Earthquake Scenario – Digital and Utility Network Linkages and Resilience," in U.S. Geological Survey Scientific Investigations Report 2017–5013–R–W, *The HayWired Earthquake Scenario— Societal Consequences*, <u>https://pubs.er.usgs.gov/publication/sir20175013V3</u>.
- 11. Eyer, J., Rose, A., **Wei, D.**, and Papaefthymiou, K. 2020. *A Scenario Simulation Forecasting Model for Cross-Border Passenger Vehicle Traffic*. Report to U.S. Customs and Border Protection.
- 12. Rose, A., John, R., Byrd, K., Eyer, J., **Wei, D.**, Baucum, M., and Nguyen, K. 2020. *Does Enhanced Security Improve Business Performance?* Draft Final Report to DHS Cybersecurity and Infrastructure Security Agency (CISA).
- 13. Wei, D., Koc, E., Rose, A., Chen, Z., and Soibelman, L. 2020. *Socioeconomic Dimensions of Resilience to Seaport and Highway Transportation Network Disruptions*. Final Report to the California Department of Transportation.
- 14. von Winterfeldt et al. 2019. *First Responder Group (FRG) Apex Technology Transition Impact Assessment*. Draft Final Report submitted to FRG/Office Public Safety Research, Science and Technology Directorate, DHS.
- **15.** von Winterfeldt et al. 2019. *Center of Excellence Landscape Study Phase 2*. Final Report submitted to Office of University Programs, Science and Technology Directorate, DHS.
- 16. Wei, D. and Rose, A. 2019. *Economic Impacts of the California Institute for Regenerative Medicine (CIRM)*. Final Report to California Institute for Regenerative Medicine.
- 17. Rose, A. and Wei, D. 2018. Economic Impacts of the PACE Program: The Contribution of Ygrene Energy Fund, Inc.
- 18. Wei, D. and Rose, A. 2018. *Economic Impact Analysis of Capital Investment at CBP Land Port of Entries (LPOEs)*. Report to U.S. Customs and Border Protection.
- 19. Wei, D., Neyra, O., and Anthony, A. 2018. *Demographic and Economic Features of Regions near the Mexican and Canadian Border*. Report to U.S. Customs and Border Protection.
- **20.** Rose, A., **Wei, D.**, and Eyer, J. 2017. *Demographic and Economic Research to Improve Forecasting of Border-Crossing Traffic*. Report to U.S. Customs and Border Protection.
- **21. Wei, D.** and Rose, A. 2016. Evaluating Modeling Approaches for Analyzing Macroeconomic Impacts of New York Prize Microgrid Projects. Report to New York State Energy Research & Development Authority.
- 22. Wei, D., Chen, Z., and Rose, A. 2016. *Development and Application of an Economic Framework to Evaluate Resilience in Recovering from Major Port Disruptions*. Final Report to the California

Department of Transportation.

- 23. Rose, A., Ganderton, P., Eyer, J., Wei, D., von Winterfeldt, D., and Bostic, R. 2016. *Analysis of a Deductible Formula for FEMA Post-Disaster Public Assistance*. Final Report to the Federal Emergency Management Agency.
- 24. Rose, A., Roberts, B., Wei, D., Chen, Z., Foreman, K., and McGonegal, S. 2015. *Economic Impact* of *CBP Enforcement Activity Relating to Priority Trade Issues (PTIs)*. Report to U.S. Customs and Border Protection.
- 25. Maya, I., Rajagopalan, R., Vyas, N., and **Wei, D**. 2015. *Sharpening Expertise: Future Trade Workforce 2020.* Report to Custom and Border Protection.
- 26. Wei, D., Morrison, B., Yuan, C., and Tokyzhanova, T. 2015. *Evaluation of Economic Impacts of The EXPO Center: Contributing to the Los Angeles County Economy*. Report to The Friends of EXPO Center.
- 27. Rose, A., Prager, F., Wei, D., and Lahri, S. 2015. *Broadening Economic Modeling for Biosurveillance Analysis*. Final Report to the National Biosurveillance Integration Center.
- 28. Wei, D., Rose, A., Brugues, A., and de la Parra, C. 2014. "Macro-economic Impacts of Policy Recommendations," Chapter 9 in *Final Report of the Baja California Phase 2 Climate Action Plan*.
- 29. Heatwole, N., Rose, A., Wei, D., Dixon, P., Rimmer, M., and Wittwer, G. 2014. *Modeling the Temporal and Spatial Consequences of Nuclear Terrorism Events*. Report to the U.S. Domestic Nuclear Detection Office.
- Robets, B., McGonegal, S., Prager, F., Wei, D., Rose, A., Bachnagel, C., Beggs, T., and Baghelai, O. 2014. *Analysis of Primary Inspection Wait Time at U.S. Ports of Entry*. Report to U.S. Customs and Border Protection.
- 31. Wein, A., Rose, A., Sue Wing, I., and **Wei, D.** 2013. *Economic Impacts of the SAFRR Tsunami Scenario in California*. Report to USGS.
- 32. Wei, D., Rose, A., and Lahr, M. 2013. *Analysis of Indirect Economic Impacts of the Earthquake Scenarios in British Columbia and Quebec.* Final Report to AIR Worldwide (study funded by Insurance Bureau of Canada).
- 33. Roberts, B., Heatwole, N., Wei, D., Avetisyan, M., Chan, O., Rose, A., and Maya, I. 2013. *The Impact on the U.S. Economy of Changes in Wait Times at Ports of Entry*. Final Report to U.S. Customs and Border Protection.
- Rose, A., Sue Wing, I., Wei, D., and Avetisyan, M. 2012. Total Regional Economic Losses from Water Supply Disruptions to the Los Angeles County Economy. Final Report to Los Angeles Economic Development Corporation.
- 35. Wei, D. and Chatterjee, S. 2012. *Economic Impact of Sea Level Rise to City of Los Angeles*, in the Report of *Sea Level Rise Vulnerability Study for the City of Los Angeles*. A Report for the Mayor of Los Angeles.
- 36. Rose, A. and Wei, D. 2012. *Macroeconomic Impact Analysis for Energy, Commerce, and Resources (ECR) Policies for the SCAG Region*. Report to Southern California Association of Governments (SCAG).
- 37. Wei, D. and Rose, A. 2011. *The Macroeconomic Impact of the New York Climate Action Plan: A Screening Analysis*. Report to New York State Energy Research and Development Authority.
- 38. Rose, A. and **Wei, D.** 2011. *Measuring Economic Risk Benefits of USCG Marine Safety Programs*. Final Report to U.S. Department of Homeland Security.
- 39. Rose, A., **Wei, D.**, and Prager, F. 2010. *Aggregate and Distributional Impacts of AB32 on the California Economy: Alternative Allocation Strategies for Cap and Trade*. Report to Next 10.

http://www.next10.org/next10/pdf/trading/Rose Final.pdf.

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- 41. Peterson, T., Wennberg, J., Rose, A., and **Wei, D.** 2010. *Impacts of Comprehensive Climate and Energy Policy Options on the U.S. Economy*. Johns Hopkins University, Baltimore. <u>http://advanced.jhu.edu/academic/government/energy-policy-report/</u>.
- Miller, S., Wei, D., and Rose, A. 2010. *The Macroeconomic Impact of the Michigan Climate Action Council Climate Action Plan on the State's Economy*. Report to Michigan Department of Environmental Quality. <u>http://www.climatestrategies.us/ewebeditpro/items/O25F22416.pdf</u>.
- 43. Rose, A. and Wei, D. 2009. "Macroeconomic Assessment," Chapter 11 in Pennsylvania Climate Action Plan. <u>http://www.depweb.state.pa.us/energy/cwp/view.asp?q=539829</u>.
- 44. Rose, A. and **Wei, D.** 2009. *The Economic Impact of the Florida Energy and Climate Change Action Plan on the State's Economy*. Report to the Governor Office of the State of Florida.
- 45. Rose, A., **Wei, D.**, and Wennberg, J. 2009. "Market-Based Policies," Chapter 4 in *Michigan Climate Action Council Final Report*. <u>http://www.miclimatechange.us/stakeholder.cfm</u>.
- 46. Rose, A., Wei, D., and Wennberg, J. 2008. "Cap and Trade," Chapter 4 in *Florida Governor's Action Team on Energy and Climate Change Final Report.* http://www.flclimatechange.us/stakeholder.cfm.
- 47. Rose, A., Wei, D., and Wennberg, J. 2008. "ES-3: GHG Cap and Trade and ES-9: Carbon Tax," in Chapter 4 of *Maryland Climate Action Plan*.
- 48. Rose, A. and **Wei, D.** 2007. "Computing Regional Business Interruption Losses from Disruption to Water and Wastewater Utilities," Report to ASME-Innovative Technologies Institute.
- 49. Rose, A. and **Wei, D.** 2007. "Input-Output Analysis of the Price Impact on Food Processors of Increased Renewable Fuel Standard Levels," Report to the American Petroleum Institute.
- Rose, A. and Wei, D. 2006. "Economic Analysis of a Cap and Trade System for Carbon Dioxide Emission Reduction in the Western States," Report to the New Mexico Climate Change Advisory Group. <u>http://www.nmclimatechange.us/ewebeditpro/items/O117F10118.pdf</u>.
- 51. Rose, A. and Wei, D. 2006. "The Economic Impacts of Coal Utilization and Displacement in the Continental United States, 2015," Report to the Center for Energy and Economic Development, Inc. <u>http://www.ceednet.org/ceed/index.cfm?cid=7505</u>.
- 52. Rose, A., Wei, D., and Yang, B. 2005. "Economic Impacts of Oregon's Indigenous Energy Resources: a PC-Based Model," Report to the Oregon Department of Energy.
- 53. Wei, Z.H., Lv, Y.Y., and **Wei, D.** 2001. "Promotion and Financing of Clean Energy Development in China," Greening Industry Network Conference: ADB (Asian Development Bank)-sponsored sessions, Bangkok, Thailand. January 21-25, 2001.

Professional Presentations and Talks

- "Socioeconomic Dimensions of Resilience to Seaport and Highway Transportation Network Disruptions," 67th Annual North American Meetings of the Regional Science Association International, November 8, 2021.
- "Economic Impacts of Cargo Handling Equipment Electrification at POLA/POLB," METRANS Research Seminar. October 27, 2021.

- "California's Offshore Wind Electricity Opportunity," USC Schwarzenegger Legislative Briefing. August 18, 2021.
- "An Economic Consequence Analysis Framework for COVID-19," Global Trade Analysis Project (GTAP) Annual Conference, June 23, 2021.
- "Economic Consequences of the HayWired Earthquake Scenario Digital and Utility Network Linkages and Resilience" The Regional Science Academy-Tsinghua University Joint Workshop on Sustainability, June 19, 2021.
- "Socioeconomic Dimensions of Resilience to Seaport and Highway Transportation Network Disruptions," Mid-Continent Regional Science Association (MCRSA)-IMPLAN Annual Meeting, June 10, 2021.
- "Los Angeles 100% Renewable Energy Study: Economic Impacts and Jobs," International Meetings of the International Association for Energy Economics, June 8, 2021.
- "Employment Impacts of Climate Action Plans," Stanford University Energy Modeling Forum-University of Southern Californian Schwarzenegger Institute Symposium on Climate Policy, June 2, 2021.
- "Spatial Transmission of the Economic Impacts of COVID-19," conference on Globalization, COVID-19, and International Migration, sponsored by the Graduate Institute Geneva and several other organizations.
- "Spatial Transmission of the Economic Impacts of COVID-19 through International Trade," Regional Science Association International World Congress, May 26, 2021.
- "Impacts of the Coronavirus on the Economy of the United States," US Department of Homeland Security Centers of Excellence Summit, Washington DC (virtually) plenary session, May 19, 2021.
- "Socioeconomic Impacts of Resilience to Seaport and Highway Transportation Network Disruptions," Pacific Southwest Region (PSR) Congress 2021, April 12, 2021.
- "Economic Impact Analysis of Electrification of Cargo Handling Equipment," presentation at METRANS Advisory Board Meeting, April 2, 2021.
- "LA100: Jobs and Economic Impact Modeling," presented at LADWP LA100 Advisory Group Meeting, March 11, 2021.
- "Economic Impact Modeling of Climate and Energy Policy," invited presentation at the Global Visiting Scholars Platform Workshop, USC Price School of Public Policy, February 24, 2021.
- "Los Angeles 100% Renewable Energy Study: Aggregate and Distributional Economic Impacts," Western Regional Science Association 60h Annual Meeting, February 23, 2021.
- "Economic Consequences of the HayWired Scenario Digital and Utility Network Linkages and Resilience," The HayWired Connection: Societal Consequences of Earthquakes -- Modeling Economic Impacts of Earthquakes: Research and Practice, USGS Workshop, November 19, 2020.
- "Impacts of COVID-19 on the U.S. Economy," USC CREATE ASU CAOE Webinar Series: The Economic Impacts of COVID-19, November 18, 2020.
- "Socioeconomic Dimensions of Resilience to Seaport and Highway Transportation Network Disruptions," 67th Annual North American Meetings of the Regional Science Association International, November 12, 2020.
- "Socioeconomic Dimensions of Resilience to Seaport and Highway Transportation Network Disruptions," Caltrans presentation, October 5, 2020.

- "Impacts of COVID-19 on the U.S. Economy," International Society for Integrated Disaster Risk Management Workshop, September 23, 2020.
- "Impacts on the U.S. Macroeconomy of Mandatory Business Closures in Response to the COVID-19 Pandemic," USC Price Talk, May 13, 2020.
- "Modeling the Economic Impact of COVID-19," REMI Webinar, March 19, 2020.
- "Evaluating the Role of Resilience in Recovering from Disasters: A Multi-Regional Analysis of a Seaport Disruption," presented at 8th METRANS International Urban Freight Conference, Long Beach CA, October 16-18, 2019.
- "Introduction of Economic Impact Modeling of Sustainable Transportation Policies," Webinar presentation to the California Sustainable Freight Action Plan Economic Competitiveness Working Group. September 23, 2019.
- "Modeling Economic Resilience to Disasters," REMI Seminar, Los Angeles, CA, August 8, 2019.
- "Modeling Economic Resilience to Disasters," REMI webinar, June 12, 2019.
- "Economic, Environmental, and Resiliency Impacts of Property Assessed Clean Energy (PACE) Programs," REMI webinar, November 14, 2018.
- "Economic Impacts of the Property Assessed Clean Energy (PACE) Programs in California," REMI 33rd Annual Users' Conference, San Diego, CA, October 10-12, 2018.
- "Economic Consequences of and Resilience to a Disruption of Oil Trade: Role of Seaports in U.S. Energy Security," presented at Western Regional Science Association 57th Annual Meeting, Pasadena, CA, February 11-14, 2018.
- "Design of a Deductible/Credit System for Post-Disaster Public Assistance: Implications for Risk Reduction Goals," presented at the Association for Public Policy Analysis and Management Annual Meetings, Chicago, IL, November 3, 2017.
- "Evaluating the Role of Resilience in Recovering from Major Port Disruptions," presented at 7th METRANS International Urban Freight Conference, Long Beach CA, October 17-20, 2017.
- "Equity, Emissions Allowance Trading and the Paris Agreement on Climate Change," presented at 2017 Energy Transition Forum, USC, Los Angeles, CA, October 5-6, 2017.
- "Economic Consequences of and Resilience to a Disruption of Oil Trade: Role of Seaports in U.S. Energy Security," presented at Western Economic Association International 92nd Annual Conference, San Diego, CA, June 25-June 29, 2017.
- "Economic Impact Analysis of Port Disruptions Roles of Resilience," Invited Presentation to the delegation of Singapore Ministry of Home Affairs, USC, June 1, 2017.
- "Evaluating the Role of Resilience in Recovering from Major Port Disruptions," presented at Transportation Research Board 96th Annual Meeting, Washington DC, January 8-12, 2017.
- "Economic Consequences of a Silicon Valley Earthquake," presented at the Society for Risk Analysis 2016 Annual Meeting, San Diego, CA, December 11-December 15, 2016.
- "Analysis of Indirect Economic Impacts of Earthquake Scenarios in British Columbia and Quebec," presented at the 47th Mid-Continent Regional Science Association Annual Conference and the 11th Biennial IMPLAN National User's Conference, Charlotte, NC, June 9-June 11, 2016.
- "Economic Resilience in Recovering from Major Port Disruptions," presented at the Annual Conference of American Association of Geographers, San Francisco, CA, March 29-April 2, 2016.

- "The Economics of Climate Mitigation Policies: the Case of California," invited talk at Institute of Energy, Environment and Economy, Tsinghua University, Beijing, China, November 9, 2015.
- "The Economics of Emissions Trading between China, the European Union and California," presented at Energy Policy Exchange Forum, Beijing, China, November 5-7, 2015.
- "Trade Outlook 2020: Survey Findings," Trade Outlook 2020 Roundtable, Chicago, IL, July 30, 2015.
- "Macroeconomic Impacts of Climate Policies in California," presented at the Greenhouse Gas Emissions Modeling – California 2030 Forum, UC Davis, CA, February 23, 2015.
- "Climate Change and the Economy in the U.S.-Mexico Border: Challenges in the Implementation of Policies at the State and Local Level," presented at the APPAM 2014 Fall Research Conference, Albuquerque, NM, November 6-8, 2014.
- "A Comparative Analysis of the Macroeconomic Impacts of State Climate Action Plans," presented at the Annual Meeting of American Association of Geographers, Tampa, FL, April 8-12, 2014.
- "Overview of REMI Macroeconomic Impact Analysis on Climate Action Plans in the U.S.," webinar presentation to professors and students from Jinan University, March 26, 2014.
- "Economic Impact of Sea Level Rise to City of Los Angeles," Los Angeles Regional Collaborative for Climate Change and Sustainability 3rd Month Forum: Regional Coastal Impacts and Local Opportunities, Santa Monica, CA, January 7, 2014.
- "Economic Impacts of the SAFRR Tsunami Scenario in California: The Role of Resilience," National Strategic Maritime Risk Stakeholder Alliance Meeting, West Lafayette, IN, November 20-21, 2013.
- "Capacity Building of Subnational Low-Carbon Development Planning in China," Center for International Studies Transnational Climate Policy Research Cluster Workshop, USC, May 3, 2013.
- "Macroeconomic Impacts of AB32 on the SCAG Economy," presented at the Annual Meeting of American Association of Geographers, Los Angeles, CA, April 9-13, 2013.
- "Link between REMI Model and Climate Action Planning: Assessment of Macroeconomic Impacts of State Climate Action Plans in REMI," invited talk at the Economic, Environmental, and Energy Discussion Workshop, Institute of Policy and Management, Chinese Academy of Sciences, Beijing, China, July 16-18, 2012.
- "State Climate Action Planning in the U.S.: Policy and Impact Analysis," invited talk at California State University, Northridge, CA, June 30, 2012
- "Aggregate and Distributional Impact Analysis of GHG Mitigation Options," invited talk at Chinese Academy of Governance U.S. Low Carbon Development Workshop, USC, Los Angeles, CA, May 29, 2012.
- "Modeling the Economic Impacts of State Climate Policies," Good Jobs, Green Jobs West Conference, Los Angeles, CA, March 15-16, 2012.
- "Aggregate and Distributional Impacts of California Global Warming Solutions Act on the California State Economy," presented at the Annual Meeting of Association of American Geographers, New York City, NY, February 24-28, 2012.
- "CCS-REMI Subnational Climate and Energy Policies, Markets," REMI webinar, January 18, 2012.
- "Macroeconomic Screening Tool for Climate and Energy Policies," CCS Security and Investment meeting at Johns Hopkins Center for Advanced Governmental Studies, November 30, 2011.
- "The Impacts of Greenhouse Gas Mitigation Policy Options on The Pennsylvania State Economy," 30th USAEE/IAEE Annual North American Conference, Washington, D.C., October 9-12, 2011.

- "Macroeconomic Impact Analysis of GHG Mitigation Policy Options," Technical Exchange Workshop on Subnational Low Carbon Development Planning in China & U.S., Beijing, China, September 27-29, 2011.
- "Climate Action Planning in the U.S. States: Cost Curve Development and Macroeconomic Impact Analysis," Research Exchange Meeting between Center for Sustainable Cities and Institute of Industrial Economics, Chinese Academy of Social Sciences, USC, August 18, 2011.
- "Resilience to Port Disruption," Second International Conference on Integrated Disaster Risk Management, Los Angeles, CA, July 14-16, 2011.
- "The Impacts of the Pennsylvania Climate Action Plan on the State's Economy," 57th Annual North American Meetings of The Regional Science Association International, Denver, November 10-13, 2010.
- "Macroeconomic Impact Analysis of State Climate Action Plans," invited talk at China Executive Leadership Academy Pudong, Shanghai, China, November, 2010.
- "Macroeconomic Impact Analysis of State Climate Action Plans," invited talk at Chinese Academy of Governance, Beijing, China, November, 2010.
- "Macroeconomic Modeling of State Climate Action Plans in the U.S.," invited tutor at Technical Training Workshop on Provincial Low-Carbon Development Planning Methodology, Guangzhou, China, November, 2010.
- "Climate Action Planning in the U.S." and "Macroeconomic Impacts of U.S. State Climate Action Plans," invited talk at Guangzhou Institute of Energy Conversion, Guangzhou, China, August, 2010.
- "Macroeconomic Impact Analysis of State Climate Action Plans," U.S.—China Partnership On Sub National Climate Action Planning and Policy Development, New York, NY, July, 2010.
- "Macroeconomic Assessment of the Pennsylvania Climate Action Plan," Annual Meeting of Association of American Geographers, Washington, DC, April 14-18, 2010.
- "Energy Conservation: an Urgent Sustainable Development Strategy in China," 102nd Annual Meeting of American Association of Geographers, Chicago, IL, March 7-11, 2006.
- "Energy Issues in China," 101st Annual Meeting of American Association of Geographers, Denver, CO, April 5-9, 2005.

Honors and Awards

PACESetter Award for Excellence in Policy Innovation, 2020

Sir Richard Stone Prize of the International Input-Output Association (IIOA) (awarded for the best paper published in *Economic Systems Research* in two consecutive years, 2013-2014), 2017

Outstanding Economic Analysis Award from Regional Economic Models, Inc. (REMI), 2012

Honorable Mention, RSAI (Regional Science Association International) Dissertation Award, 2007

University Graduate Fellowship, Penn State University, 2002

Wilson Research Award of Earth and Mineral Science College, Penn State University, 2002

Energy and Environment Scholarship, Tsinghua University, 2001

Guanghua Scholarship, Tsinghua University, 2000

Outstanding Student Scholarship, Tsinghua University, 1997 and 1999

Teaching Experience

Instructor, University of Southern California PPD 558 Multivariate Statistical Analysis, Spring 2017, Fall 2017, Spring 2019, Fall 2019, Fall 2020 PPD 501a Economics for Policy, Planning and Development, Fall 2014 PPD 501b Economics for Policy, Planning and Development, Fall 2014

Guest Instructor, University of Southern California PPDE 665 Economic Impact Analysis: Methods and Applications, Spring 2018, Spring 2021 PPD 599 Economic Impact Analysis: Methods and Applications, Spring 2014, Spring 2015, Spring 2017 Applied General Equilibrium Analysis, Fall 2011

Guest Lecture, The Ohio State University Public Affairs 7920 Graduate Capstone in Public Economics & Applied Policy Analysis, Spring 2017

School Service

Research Committee, Sol Price School of Public Policy, 2013-2014, 2019-2021 Public Policy Field Committee, Sol Price School of Public Policy, 2016-2019

Professional Service

Editorial Board, Journal of Sustainable Energy Engineering (JSEE), 2017-

Guest Editor, JSEE Special Issue on Economics of Sustainable Energy, 2017

Member, Awards Committee, International Society for Integrated Disaster Risk Management, 2017-

Session Organizer and Chair, Association of American Geographers Annual Conference, 2013

Referee Service: Environment and Planning A, Energy Journal, Climate Policy, China Economic Review, Annuals of Regional Sciences, Journal of Environmental Management, International Regional Science Review, Natural Hazards and Earth System Sciences, Energy Policy, Economic Systems Research, Journal of Sustainable Energy Engineering

Professional Affiliations

Association of American Geographers International Association for Energy Economics Association for Public Policy Analysis & Management

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