

**Ronil Hira, Ph.D., P.E.**

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**ACADEMIC EXPERIENCE**

Associate Professor with Tenure, Department of Political Science, Howard University, 2014-present  
Director of Graduate Studies, Department of Political Science, 2018-present

Associate Professor with Tenure, Department of Public Policy, Rochester Institute of Technology (RIT),  
August 2009-2014. Department Chair 2013-14.

Assistant Professor of Public Policy, RIT, August 2003-2009

Extended Graduate Program Faculty, Golisano Institute for Sustainability, RIT, 2007-2014

Post-Doctoral Fellow, Center for Science, Policy & Outcomes, Earth Institute, Columbia  
University, 2002-03

Adjunct Professor of Electrical and Computer Engineering, George Mason University, 1992-94

**PROFESSIONAL EXPERIENCE**

IEEE Congressional Fellow, Democratic Staff of U.S. House of Representatives' Education & Workforce  
Committee, 2017-18

Research Associate, Economic Policy Institute, 2007-present

Consultant, U.S. House of Representatives' Committee on Science & Technology, 2007

Fellow, Christine Mirzayan S&T Policy Program, National Academy of Sciences, 2002

Consultant, U.S. Agency for International Development and Incubator! America, 2001

Consultant, Enterprise Integration Incorporated, Fairfax, VA, 2001

Faculty Member in Residence, Washington Internships for Students of Engineering, 2001

Assistant Research Engineer and Program Manager, George Mason University (GMU), Fairfax  
Electronic Commerce Resource Center (ECRC) project, Fairfax, VA, 1997-2000

Graduate Research Assistant, GMU, ECRC, Fairfax, VA, 1995-1997

Consultant, Science & Technology Policy Institute, RAND Corp, Wash, D.C., 1996

Regional Manager, GS-12, Manufacturing Extension Partnership (MEP), National Institute of Standards  
and Technology (NIST), Gaithersburg, MD, 1993-94

Electronics Engineer, GS-11, Robot Systems Division, NIST, Gaithersburg, MD, 1991-93

Electrical Engineer, S.T. Research Corp., Newington, VA, 1988-1990

## EDUCATION

Ph.D. in Public Policy, July 2002, George Mason University, Fairfax, VA

Dissertation: Electronic Commerce for Supply Chain Integration & Management: Approaches to Improve Government Policies

M.S. in Electrical Engineering, August 1991, George Mason University, Fairfax, VA

Thesis: Failure Detection and Isolation of Automobile Engine Sensors and Actuators Using Neural Networks

B.S. in Electrical Engineering, December 1988, Carnegie-Mellon University, Pittsburgh, PA

## RESEARCH INTERESTS

Offshoring & Globalization  
High-Skilled Immigration

Science & Engineering Workforce  
Innovation Policy

## COURSES DEVELOPED & TAUGHT

### Howard

- Introduction to Public Administration (undergraduate)
- National Government of the U.S. (undergraduate)
- Science and Public Policy (undergraduate)
- Federal Budget as a Policy Instrument (graduate)
- Administrative Processes (graduate)
- Public Policy Process (graduate)

### RIT

- Foundations of Public Policy (undergraduate)
- Policy Analysis I, II, & III (undergraduate)
- Information and Communications Policy (undergraduate & graduate)
- Readings in Public Policy (graduate seminar)
- Technological Innovation & Public Policy (undergraduate and graduate)
- Engineering & Public Policy (undergraduate)
- Senior Project (undergraduate)

## ADVISING

### Masters non-Thesis Research Paper

Todd Mattox (chair)

### Masters Theses

Erick Littleford (chair)

Will Dube (chair)

Adam Walker (chair)

Heather Knappen (chair)

Will Resch (chair)

Albert Blankley (committee member)

Amanda Slocum (committee member)

Jackie Arcesi (committee member)

Michael Saffran (committee member)

### Senior Projects (undergraduate capstone)

Jason Selleck (chair)

Jamil Khan (chair)

Cameron Hebda and Eric Parker (chair)

External Reviewer for Ph.D. Dissertation

Emilia Barbu (economics), York University, Toronto

**PUBLICATIONS**

Books

Engineering Globalization Reshoring & Nearshoring: Management & Policy Issues, edited by Ron Hira and John Ettlie, World Scientific Publishing, 2018.

<https://www.worldscientific.com/worldscibooks/10.1142/10209-vol2>

Ron Hira & Anil Hira, Outsourcing America: The True Cost of Shipping Jobs Overseas And What Can Be Done About It, 2nd edition, AMACOM, New York: 2008.

Ron Hira & Anil Hira, Outsourcing America: What's behind our national crisis and how we can reclaim American jobs, AMACOM, New York: 2005.

- Finalist in PMA's Benjamin Franklin Awards for best business book
- Awarded IEEE-USA President's Special Citation "for furthering public understanding of an economic trend that has profound implications for the engineering profession through his book Outsourcing America."
- Endorsed by: Senator Joseph Lieberman, Representative Donald Manzullo, Professor William Baumol, Professor Richard Freeman, AFL-CIO President John Sweeney, AT&T VP Ralph Wyndrum
- Reviews in Boston Globe, Washington Post, Washington Times, and Manufacturing & Technology News
- Sold >10,000 copies

Peer Reviewed Journal Publications

Gregory Camilli and Ron Hira, "Introduction to Special Issue—STEM Workforce: STEM Education and the Post-Scientific Society," *Journal of Science Education and Technology*, forthcoming,

<https://doi.org/10.1007/s10956-018-9759-8>

Ron Hira, "Outsourcing STEM Jobs: What STEM Educators Should Know," *Journal of Science Education and Technology*, forthcoming, December 2018. <https://doi.org/10.1007/s10956-018-9747-z>

Ron Hira, "U.S. Policy and the STEM Workforce System," *American Behavioral Scientist*, special issue on STEM workforce, March 2010.

Sandra Rothenberg, Ron Hira, and Zhi Tang, "Printing Offshoring: The View from U.S. -based Printers," *Strategic Outsourcing: An International Journal*, vol. 1, issue 1, pp. 50-63, 2008.

Ron Hira, Oscar Dieste, George Spanoudakis, Giuseppe Vissagio, Guido Wirtz and S. K. Chang, "Outsourcing and Offshoring: Trends and Impacts," *International Journal of Software Engineering & Knowledge Engineering*, Vol. 17 Issue 5, p663-685 October 2007.

"U.S. Immigration Regulations and India's Information Technology Industry," *Technological Forecasting & Social Change*, v. 71, no. 8, October 2004, pp. 837-854.

Anil Hira and Ron Hira, "The New Institutionalism: Contradictory Notions of Change," *The American Journal of Economics and Sociology*, v. 59 no. 2 (Apr. 2000) pp. 267-82.

#### Book Chapters

Ron Hira and John Ettlle, "Engineering Globalization: The Emerging Phenomenon," chapter 1 in Engineering Globalization Reshoring & Nearshoring: Management & Policy Issues, edited by Ron Hira and John Ettlle, World Scientific Publishing, 2018.

<https://www.worldscientific.com/worldscibooks/10.1142/10209-vol2>

Ron Hira, "Domestic Sourcing of IT Services: Niche Market or Scalable Business Model," chapter 8 in Engineering Globalization Reshoring & Nearshoring: Management & Policy Issues, edited by Ron Hira and John Ettlle, World Scientific Publishing, 2018.

<https://www.worldscientific.com/worldscibooks/10.1142/10209-vol2>

Ron Hira, "Bridge to Permanent Immigration or Temporary Labor? The H-1B Visa Program Is A Source of Both," chapter 9 in U.S. Engineering in a Global Economy, edited by Richard Freeman and Hal Salzman, National Bureau of Economic Research and University of Chicago Press, 2018.

<http://press.uchicago.edu/ucp/books/book/chicago/U/bo26322251.html>

Ron Hira, "Analysis the Employment Effects of Outsourcing" chapter for Public Economics in the United States [3 volumes]: How the Federal Government Analyzes and Influences the Economy, edited by Steven Payson, Praeger, 2014.

"The Globalization of Research & Development," in Richard McCormack editor, Manufacturing a Better Future for America, Alliance for American Manufacturing; First edition, July 13, 2009.

"Comment on Unworthy of a Nation Built by Immigrants" by Edward J.W. Park," in Udai Tambar editor, Movement of Global Talent: The Impact of High Skill Labor Flows from India and China, Princeton University, 2007.

"Does India's IT Industry Need Labor Mobility in an Age of Offshore Outsourcing?" in Information communication technology and economic development: learning from the Indian experience, edited by Tojo J. Thatchenkery and Roger Stough, Cheltenham: Edward Elgar, 2005.

Ron Hira, Russell Lefevre, Bill Williams and Chris Brantley, "Electrotechnology-Related Research in the FY 2004 Budget Request," chapter 25 in AAAS Report XXVIII: Research and Development FY 2004, AAAS: Washington 2003.

#### Congressional & State Legislative Testimony & Roundtables

Testimony to the U.S. Senate's Judiciary Committee "The Long-term Impact of Immigration: Exploring Reforms to our Nation's Guest Worker Programs and Deferred Action for Childhood Arrivals, and their Potential Impact on the American Economy and Local Communities," September 13, 2017. Hearing postponed.

Testimony to MD House of Delegates Committee on Economic Matters, "HOUSE BILL 1366," March 6, 2017.

"H-1B Guestworker Visas: Undermining Diversity in Tech," Presentation for Diversity in Tech Roundtable, Rep. Bobby Scott & House Education and Workforce Committee, September 27, 2016.

Testimony to the U.S. Senate Judiciary Subcommittee on Immigration and the National Interest. "The Impact of High-Skilled Immigration on U.S. Workers," February 25, 2016.  
<https://www.judiciary.senate.gov/imo/media/doc/02-25-16%20Hira%20Testimony.pdf>

Testimony to MD House of Delegates Committee on Economic Matters, "HOUSE BILL 950," March 8, 2016.

Testimony to the U.S. Senate's Judiciary Committee "Immigration Reforms Needed to Protect Skilled American Workers," March 17, 2015.  
<http://www.judiciary.senate.gov/imo/media/doc/Hira%20Testimony.pdf>

Testimony to the U.S. Senate's Judiciary Committee, on "The Border Security, Economic Opportunity, and Immigration Modernization Act, S.744," April 22, 2013. This bill passed the Senate.

Testimony to the U.S. Senate's Judiciary Subcommittee on Immigration, Refugees and Border Security, on "The Economic Imperative for Enacting Immigration Reform," July 26, 2011.

Testimony to the U.S. House of Representative's Subcommittee on Immigration Policy and Enforcement on, "H-1B Visas: Designing a Program to Meet the Needs of the U.S. Economy and U.S. Workers," March 31, 2011

Testimony to the U.S.-China Economic and Security Review Commission, on "The Impact of Trade with China on the Upstate New York Economy," July 23rd, 2009.

Testimony to U.S. House Science Committee, "Roundtable on Science & Technology Workforce," June 23, 2005.

Testimony to the U.S.-China Economic and Security Review Commission, on "Offshoring of Software & High Technology Jobs," January 13th, 2005.

Testimony to the House Small Business Committee on "Offshoring of High-Skilled Jobs," October 20th, 2003.

Testimony to the House Small Business Committee on "Global Outsourcing of Engineering Jobs: Recent Trends and Possible Implications," June 18th, 2003. This testimony is used in whole in the popular textbook, Taking Sides: Clashing Views on Controversial Issues in American Foreign Policy (<http://www.dushkin.com/text-data/catalog/0073043974.mhtml>).

Testimony to the Senate Commerce, Science, and Transportation Subcommittee on Science, Technology and Space on "Homeland Security and Cyber Security", April 24, 2002,  
<http://www.ieeeusa.org/forum/POLICY/02april24.html>.

#### Invited Articles, Op-Eds & Commentary

Ron Hira and Bharath Gopalaswamy, "The H-1B Guestworker Program Needs A Major Overhaul," policy brief for The Atlantic Council (foreign policy think tank), forthcoming.

Ron Hira, "Why President Trump needs to fix the broken H-1B visa system," Marketwatch.com. January 31, 2017.  
<http://www.marketwatch.com/story/why-president-trump-needs-to-fix-the-broken-h-1b-visa-system-2017-01-31>

Ron Hira, "Donald Trump's position on reforming the H1-B programme is sensible, straightforward and consistent," *Economic Times* (India) – second largest circulation English language business daily behind Wall Street Journal. May 1, 2016.

[http://articles.economictimes.indiatimes.com/2016-05-01/news/72748641\\_1\\_h-1b-programme-h-1b-workers-h1-b](http://articles.economictimes.indiatimes.com/2016-05-01/news/72748641_1_h-1b-programme-h-1b-workers-h1-b)

Ron Hira, "Candidates' plans to change controversial H-1B guestworker program highlight need for an overhaul," *The Conversation.com*, March 1, 2016. Approximately 3,000 views

<https://theconversation.com/candidates-plans-to-change-controversial-h-1b-guestworker-program-highlight-need-for-an-overhaul-55482>

Daniel Costa and Ron Hira, submitted comments to "Department of Homeland Security, Improving and Expanding Training Opportunities for F-1 Nonimmigrant Students With STEM Degrees and Cap-Gap Relief for All Eligible F-1 Students, 80 Fed. Reg. 63376 (Oct. 19, 2015) (Notice of proposed rulemaking)." November 18, 2015.

Daniel Costa and Ron Hira, "The Department of Homeland Security's proposed STEM OPT extension fails to protect foreign students and American workers," *Working Economics*, EPI Blog, December 1, 2015.

<http://www.epi.org/blog/the-department-of-homeland-securitys-proposed-stem-opt-extension-fails-to-protect-foreign-students-and-american-workers/>

Ron Hira, "Disney H-1B Scandal in Spotlight Again: Meet The American Workers Whose Jobs and Careers Were Destroyed by the H-1B Program," *Working Economics*, EPI Blog, October 28, 2015.

<http://www.epi.org/blog/disney-h1b-scandal-in-spotlight-meet-american-workers-whose-jobs-careers-were-destroyed/>

Ron Hira, "New Scandals Revealed by the New York Times: How the H-1B Visa is Used to Ship American Jobs Overseas," *Working Economics*, EPI Blog, September 30, 2015

<http://www.epi.org/blog/h-1b-outsourcing-visa-ship-american-jobs-overseas/>

Ron Hira and Hal Salzman, "H-1B visas about American jobs, not immigration policy," *AL.com*, March 20, 2015.

[http://www.al.com/opinion/index.ssf/2015/03/h-1b\\_visas\\_about\\_american\\_jobs.html](http://www.al.com/opinion/index.ssf/2015/03/h-1b_visas_about_american_jobs.html)

Ron Hira, "Outsourcing in America," *The Hill*, March 16, 2015.

<http://thehill.com/blogs/congress-blog/labor/235706-outsourcing-in-america>

Ron Hira, et.al., "Bill Gates' tech worker fantasy," *USA Today*, July 27, 2014.

<http://www.usatoday.com/story/opinion/2014/07/27/bill-gates-tech-worker-wages-reforms-employment-column/13243305/>

Ron Hira, "Congress and President Obama Cannot Sit Idly By While Companies Use H-1B Guestworkers to Replace American Workers," *Working Economics*, February 10, 2015.

<http://www.epi.org/blog/congress-and-president-obama-cannot-sit-idly-by-while-companies-use-h-1b-guestworkers-to-replace-american-workers/>

Daniel Costa and Ron Hira, "Disney Reverses 35 Layoffs, but No Fairytale Ending for Thousands of Others Displaced by H-1B Visa Program," *Working Economics*, June 18, 2015.

<http://www.epi.org/blog/disney-reverses-35-layoffs-but-no-fairytale-ending-for-thousands-of-others-displaced-by-h-1b-visa-program/>

Ron Hira, "Et Tu, Mickey Mouse? Disney Pads Record Profits by Replacing U.S. Workers with Cheaper H-1B Guestworkers," *Working Economics*, June 5, 2015.

<http://www.epi.org/blog/et-tu-mickey-mouse-disney-pads-record-profits-by-replacing-u-s-workers-with-cheaper-h-1b-guestworkers/>

Second most read article on the Economic Policy Institute's website.

Ron Hira, "New Data Show How Firms Like Infosys and Tata Abuse the H-1B Program," *Working Economics*, February 19, 2015.

<http://www.epi.org/blog/new-data-infosys-tata-abuse-h-1b-program/>

Daniel Costa and Ron Hira, "TiSA: A Secret Trade Agreement That Will Usurp America's Authority to Make Immigration Policy," *Working Economics*, June 11, 2015.

<http://www.epi.org/blog/tisa-a-secret-trade-agreement-that-will-usurp-americas-authority-to-make-immigration-policy/>

Third most read article on the Economic Policy Institute's website.

Ron Hira, written comments for, "Highly Skilled Migration: STEM Supply and Policy Challenges," roundtable held at Georgetown University, Washington, DC, March 13, 2014.

Ron Hira, written comments for, "Is There A STEM Worker Shortage? Debate," held at the National Academies in Washington, DC, March 12, 2014.

Ron Hira, "Brookings H-1B Report's Flawed Analysis and Flawed Process," blog, Economic Policy Institute, May 13, 2013.

Ron Hira, "Does the Immigration Innovation Act Help Offshore Outsourcing Firms? Financial Advisory Firm Says Yes," blog, Economic Policy Institute, February 28, 2013.

Ron Hira, "Top 10 users of H-1B guestworker program are all offshore outsourcing firms," blog, Economic Policy Institute, February 14, 2013

Ron Hira, "Highly-Skilled Immigration Policy: Problems, Misconceptions, and Solutions," paper prepared for The 2012 Mortimer Caplin Conference on the World Economy, *High-Skilled Immigration: Politics, Economics, and Law*, Washington, DC, December 7, 2012

Ron Hira, "Broad STEM Grad Green Card Exemptions Would Distort Labor Market," *US News & World Report* on-line, May 25, 2012

Ron Hira and Daniel Costa, "EPI open letter to USCIS Director Mayorkas on L-1B 'specialized knowledge'," Economic Policy Institute, March 26, 2012

Ron Hira, "Seeking reforms in guest worker programmes," *Livemint.com* (Dow Jones owned financial daily in India), June 24, 2011.

Ron Hira, "H-1B Workers Are in a State of Indentured Servitude," *US News & World Report* on-line, Dec 28, 2011

Ron Hira, "The H-1B and L-1 Visa programs: Out of Control," briefing paper #280, Economic Policy Institute, October 14, 2010.

Ron Hira, "Are there jobs that can't be outsourced?" *NY Times* Room For Debate (on-line), September 14, 2010.

Ron Hira, "Bridge to Immigration or Cheap Temporary Labor? The H-1B & L-1 Visa Programs Are a Source of Both," briefing paper # 257, Economic Policy Institute, March 11, 2009.

Ron Hira, "H-1B Visas: It's Time for an Overhaul," opinion, *BusinessWeek* print edition, April 13, 2009.

Ron Hira, "Do We Need Foreign Technology Workers?" *NY Times* Room For Debate (on-line), April 8, 2009

Ron Hira, "U.S. Workers in a Global Job Market," *Issues in Science & Technology*, Spring 2009.

Ron Hira, "A Policy Agenda for Offshoring," working paper # 282, Economic Policy Institute, March 11, 2009.

"The Obama Administration Promotes Outsourcing," opinion, *EE Times.com*, on-line edition, February 4, 2009.

Ron Hira, "The Offshoring of Innovation," briefing paper # 226, Economic Policy Institute, December 1, 2008.

Ron Hira and Phillip E. Ross, "R&D Goes Global," *IEEE Spectrum*, on-line version, November 2008 (peer reviewed)

Ron Hira and Margaret Bailey, "Engineering & Public Policy," guest essay, *Rochester Democrat & Chronicle*, August 1, 2008.

Ron Hira, "An Overview of the Offshoring of U.S. Jobs," in Marlene Lee and Mark Mather, U.S. Labor Force Trends, *Population Bulletin*, vol. 63, no. 2, June 2008.

Ron Hira, "Is There a Tech Talent Shortage?: No," *InformationWeek*, cover story, Issue 1168, p36-46, 1/7/2008.

Ron Hira and Phillip E. Ross, "R&D 100: Toyota Tops This Year's List," *IEEE Spectrum*, December 2007 (peer reviewed).

Ron Hira, "Policy & The STEM Workforce," Paper #9, STEM Workforce Data Project, Commission on Professionals in Science & Technology, Washington, DC, November, 2007.

Ron Hira, "How Guestworkers Promote Outsourcing," *The American Prospect*, web version, August 6, 2007.

"Outsourcing America's technology and knowledge jobs," Agenda for Shared Prosperity paper series, briefing paper #187, Economic Policy Institute, March 28, 2007.

"R&D 100: IBM takes the guesswork out of services consulting," with Harry Goldstein, *IEEE Spectrum*, December 2006.



“R&D 100: The world’s biggest R&D spenders,” with Harry Goldstein, *IEEE Spectrum*, December 2005.

“Impacts and Trends of Offshoring Engineering Tasks and Jobs,” *The Bridge*, National Academy of Engineering, v.35, no.3, (Fall 2005) pp. 22-27.

“R&D 100: The world’s biggest R&D spenders are putting their money on software and service,” with Harry Goldstein, *IEEE Spectrum*, v.41, no. 11 (November 2004) pp. 61-65.

“White Collar Jobs Move Overseas – Implications for States,” *Spectrum: The Journal of State Government*, v.78, no. 1, Winter, 2004.

“Outsourcing Denial – Why Politicians Have Done Nothing,” *Rochester Business Journal*, October 26, 2004.

“How Can We Ensure A Strong IT Labor Pool?” *Optimize*, July 2004.

“Offshore Outsourcing - Sizable Rhetoric and Little Progress,” *Heinz School Review*, v. 2, no. 1, 2004.

“Now Workers Not Companies Are Hurting: Glib answer to offshoring is retraining, but that’s not easy,” *San Jose Mercury News*, January 22, 2004.

“The Top 100 R&D Spenders: Who’s up, who’s down, and a look inside the numbers for 2002,” *IEEE Spectrum*, v.40, no. 10 (October 2003) pp. 33-36.

#### Non-Refereed Articles

U.S. House of Representatives “Committee on Science & Technology, Committee Report, “The Globalization of R&D and Innovation: Scale, Drivers, Consequences, and Policy Options,” Government Printing Office, May 2008.

Drafted all documents (hearing charter, memos and questions) for four Congressional Hearings on the Globalization of Innovation & R&D. 2007.

“Boom-Bust: New Paradigm for EE Jobs,” *Research Technology Management* v. 46 no. 2 (March/April 2003) pp. 5-8.

“Scrutinizing Industrial R&D Data,” *Research Technology Management* v. 46 no. 2 (January/February 2003) pp. 4-6.

#### Conference Editing/Organizing

“NSF Engineering Globalization Workshop,” Arlington, VA, May 16, 2012.

Proceedings of MAREXPO: R&D in Information Technology in Shipbuilding, March 1999, with Thomas Gullledge. <http://www.pac.gmu.edu/proceedings/>

#### Book Review

Technology Integration: Making Critical Choices in a Dynamic World, by Marco Iansiti, reviewed in *Journal of Technology Transfer*, vol. 25 (1), pp. 91-93, March 2000.

#### Selected Peer-Reviewed Conference Publications

Ron Hira, "Bridge to Permanent Immigration or Temporary Labor? The H-1B Visa Program Is A Source of Both," APPAM Annual Meeting, Washington DC, November 8, 2013.

"Bridge to Immigration? H-1B & L-1 Visas as a Source of Permanent Immigration," Industry Studies Association, Pittsburgh, PA, June 1, 2011.

"Global Labor Sourcing," Council on Foreign Relations and Levin Graduate Institute conference on Globalization, New York, NY, June 17th, 2005.

"Offshore Outsourcing: Policy Responses," Southern Regional Science Conference, Arlington, VA, April 9, 2005.

"Social Impacts of Offshore Outsourcing," International Association for Science Technology and Society, Annual Conference, Baltimore, MD, February 12th, 2005.

"Offshore Outsourcing & Movement of Natural Persons," The WTO And Beyond Conference, Center for Global Political Economy, Simon Fraser University, Vancouver, Canada, July 16th, 2004.

"Utilizing Immigration Regulations as a Competitive Advantage: An Additional Explanation for India's Success in Exporting Information Technology Services," GMU-IISC Conference, Bangalore, India, March 3-5, 2003.

"Electronic Commerce for Supply Chain Integration & Management," APPAM Fall Research Conference, November 7-9, 2002.

"The Dependence of Developing Countries on U.S. IT Demand: Future Challenges in the IT Services Market," Harvard Conference on Science, Technology, & Innovation, Sep 23-24, 2002.  
<http://www.cid.harvard.edu/cidbiotech/comments/comments152.htm>

"Science and Technology Policy: Is There More To It Than Just R&D Funding?," Proceedings of the International Engineering Management Conference - 2000, pp. 653-57, Institute of Electrical and Electronics Engineers, 2000.

"Electronic Commerce for Manufacturing Supply Chains," Proceedings of the International Engineering Management Conference - 2000, pp. 225-29, Institute of Electrical and Electronics Engineers, 2000.

"Electronic Commerce for SMEs in Shipbuilding Supply Chains," in Stimulating Manufacturing Excellence in Small and Medium Enterprises: Proceedings of the Second International SMESME Conference, Plymouth, England: University of Plymouth, pp. 413-18, 1999, with T. Gullledge.

"Electronic Commerce for Shipbuilding Supply Chains," in Proceedings of the 10th International Conference on Computer Applications in Shipbuilding, vol. I. Cambridge: MIT Seagrant Publication 99-1, 1999, with T. Gullledge, J. Liuzzi, and R. Sommer.

"Undergraduate Engineering Education Curriculum and Educational Research," Proceedings of the International Symposium on Technology and Society, pp. 158-66, Institute of Electrical and Electronics Engineers, 1996.

"A Submarine Maneuvering System Demonstration Based on The NIST Real-Time Control System Reference Model," presented at the 8th IEEE International Symposium on Intelligent Control, Chicago, IL, August 1993.

Selected Invited Lectures/Roundtables/Keynotes

"High-Skilled Temporary Non-Immigrants: Policy Aspirations vs. Reality," United States Citizenship & Immigration Service (USCIS) Ombudsmen, Seventh Annual Conference, Washington D.C., December 7, 2017.

"Top H-1B Employers: Worker Characteristics," Labor and Employment Relations Association, Winter Meeting, San Francisco, CA, January 4, 2016.

"Highly Skilled Migration: STEM Supply and Policy Challenges," roundtable held at Georgetown University, Washington, DC, March 13, 2014.

"Is There A STEM Worker Shortage? Debate," debate panelist at the National Academies, Washington, DC, March 12, 2014.

"Domestic IT and BPO Sourcing Can Generate Good American Jobs: The Role for Policy," Keynote to Texas Economic Development Council, Spring Conference, Dallas, TX, March 6, 2014. \$1,000 honorarium.

"U.S. High-Skilled Immigration Policy: Problems, Misconceptions, & Solutions," Center for Comparative Immigration Studies, UCSD, San Diego, CA, February 19, 2014.

"High-Skilled Immigration: Problems, Misconceptions, and Solutions," Council on Foreign Relations, New York, NY, December 18, 2013.

Moderator for U.S. House Briefing on H-1B Visa Program, sponsored by U.S. Representative George Miller, U.S. Capitol, Washington, DC, November, 25, 2013.

"The Outsourcing of IT jobs: impacts and trends," webinar for Ontario Public Service Employees Union, November 18, 2013. \$1,000 honorarium.

"High-Skilled Immigration: Problems, Misconceptions, and Solutions," Immigration Policy Workshop Nieman Foundation for Journalism at Harvard University, Boston, MA, October 25, 2013.

"Domestic IT and BPO Sourcing Can Generate Good American Jobs: The Role for Policy," Keynote, Momentum 2013, Atlanta, September 10, 2013.

"Global Engineering," participant in Decision Point Dialogue, ASME, New York, NY, April 17, 2013.

"U.S. High-Skill Immigration Policy & Politics: Prospects to Break the Stalemate," seminar at Graduate School of Public & International Affairs, Glendon-York University, Toronto, Canada, March 21, 2013.

Moderator for Senate Briefing on H-1B Visa Program, sponsored by U.S. Senator Richard Durbin, U.S. Capitol, Washington, DC, March 14, 2013.

"Highly-Skilled Immigration Policy: Problems, Misconceptions, and Solutions," The 2012 Mortimer Caplin Conference on the World Economy, Washington, DC, December 7, 2012.

“Offshoring of Engineering: Implications for Engineers,” American Society of Civil Engineers, Annual Meeting, Montreal, Canada, September 26, 2012.

“Offshoring: Good or Bad?” special plenary debate at InformationWeek 500 awards conference, San Diego, CA, Sep 10, 2012.

“Offshoring of Engineering: Implications for Engineers,” 2012 IEEE conference on Antennas and Propagation, Chicago, IL, July 12, 2012.

“Engineering Globalization: Implications for Engineering Education,” IEEE International Microwave Symposium, Montreal, Canada, June 19, 2012.

“Engineering Globalization: Implications for the U.S. Engineering Workforce,” IEEE STEM Measures for Innovation Conference, Washington, DC, June 6, 2012

"Offshoring & the State of the US Labor Market," keynote for Rochester Labor Council's Annual Awards Dinner, May 10, 2012.

“Outsourcing America: Trends, Impacts, Policy Responses,” Hobart & William Smith Colleges, April 11, 2012.

“Outsourcing America: Trends, Impacts, Policy Responses,” Western NY Chapter, PDMA, April 5, 2012.

U.S. International Trade Commission Services Roundtable, Washington, DC, November 3rd, 2011.

“Remarks on the Ray Marshall’s new book: Value Added Immigration: Lessons for the United States from Canada, Australia, and the UK,” Economic Policy Institute, Washington DC, October 30, 2011.

“Innovation Policy and Offshoring of R&D,” THE OVERHAUL OF U.S. PATENT LAW FORUM: The Impact on Patenting Practice, Patent Protection, and on Science & Engineering Jobs, Washington, DC, August 29, 2011.

“H-1B Visas: An Overview of the Policy Issues,” Temporary Immigrants: Realities & Reforms, Cornell Institute for Public Affairs, Ithaca, NY, April 29, 2011.

“Bridge to Immigration or Cheap Temporary Labor? H-1B & L-1 Visas Are a Source of Both,” Immigration Policy: Highly Skilled Workers and U.S. Competitiveness and Innovation, Brookings Institution, Washington, DC, Feb 7, 2011.

“Intra-Company Transfers to US,” Labor Shortages & Immigration Reform: Promises and Perils of an Immigration Commission, Conference at Economic Policy Institute, Washington, DC, December 9, 2010.

U.S. International Trade Commission Services Roundtable, Washington, DC, December 8, 2010.

“Measuring Labor Shortages,” Economic Policy Institute & Migration Policy Institute workshop, Washington, DC, May 20, 2009.

“Offshoring of R&D and Innovation: Implications & US Policy Responses,” Overcoming Political and Economic Obstacles: Can the U.S. Create a World Class Innovation System?, University of California Washington Center, Washington DC, December 1, 2008.

“Offshoring of R&D and Innovation: Implications & US Policy Responses,” Dept. of Regional, Economic, and Social Development, Sloan Industry Studies Seminar Series, UMass-Lowell, Lowell, MA, November 24, 2008.

“Offshoring of R&D and Innovation: Implications & US Policy Responses,” GMU-GWU Technology, Science, and Innovation Policy Research Seminar, Arlington, VA, November 6, 2008

“White Collar Offshoring: Trends, U.S. Politics & Policy,” keynote to Globalization and the Service Workplace, Peter Wall Institute, University of British Columbia, Vancouver, Canada, October 18, 2008.

“Some Observations on US Engineering & IT Workforce Politics & the Policy Process,” Representing Professionals in Science & Engineering, Harvard Law School, Cambridge, MA, September 10, 2008.

“White Collar Offshoring: U.S. Politics & Policy Dialogue,” invited panel for American Sociological Association, Boston, MA, August 2, 2008.

“Implications of Outsourcing on America’s Economy,” American Controls Conference, Seattle, WA, June 18, 2008.

“Outsourcing Engineering: Impacts and Policy Dialogue,” keynote, Southeastern Regional Cooperative Education Conference, Clemson University, May 22, 2008.

Discussant, “High-Skill Labor Mobility,” Sloan Industry Studies Conference, Boston, May 14, 2008.

“Problems and Solutions for High-Skill Guestworker Visas,” Institute for the Study of International Migration, Georgetown University, Washington D.C., March 28, 2008.

“STEM Workforce Policy,” American Institute of Physics Convocation, College Park, MD, March 27, 2008.

“Towards a Data Driven STEM Workforce Policy Discussion,” keynote at Can We Compete conference, Commission on Professionals in Science & Technology, Washington, DC, November 1, 2007.

“Outsourcing High-Skilled Jobs,” presentation at Global Leadership Conference hosted by The American Prospect, New York City, October 11, 2007.

“Outsourcing America,” Keynote Address to Electrical Manufacturing Expo 05, Indianapolis Convention Center, October 25, 2005.

“The New Engineering Labor Market,” presentation to National Science Board Workshop on Engineering Workforce Issues and Engineering Education: What Are The Linkages? Massachusetts Institute of Technology, October 20, 2005.

“US Immigration Policy and the Competition for High Skilled Human Capital,” presentation to Council on Foreign Relations' Research Roundtable on Technological Innovation and America's Primacy, New York, NY, March 17th, 2005.

“Offshoring of Engineering Jobs: Implications for Engineering Careers & Engineering Educators,” opening plenary, American Society for Engineering Education, Conference for Industry & Education Collaboration, Savannah, GA, February 2nd, 2005.

“Offshoring of High Skilled Jobs: Potential Policy Responses,” EU-US Seminar on International Labor Issues, Brussels, Belgium, December 13th, 2004.

“Offshoring of High Skilled Jobs: Emerging Global IT Business Model,” Association for Computing Machinery Job Migration Task Force, Washington, DC, December 3rd, 2004.

“Offshoring of High Skilled Jobs: Impacts & Policy Dialogue,” Regional Economic & Social Development Seminar, University of Massachusetts Lowell, Lowell, MA, November 15th, 2004.

“Offshore Outsourcing: Impacts & Policy Dialogue,” RIT Brick City Festival, Rochester, NY, October 23rd, 2004.

“The Impact of Offshore Outsourcing on American Workers,” Asian Studies Center Workshop on Offshoring, University of Pittsburgh, October 21st, 2004.

“Offshore Outsourcing & Offshoring of Technology Jobs: Impacts & Policy Dialogue,” Experian Consumer Advisory Council, Alexandria, VA, October 7th, 2004

“Offshore Outsourcing & Offshoring of Technology Jobs: Impacts & Policy Dialogue,” IEEE & Tau Beta Pi Distinguished Lecture, Princeton University, Princeton, NJ October 5th, 2004.

“Offshore Outsourcing & Offshoring of Technology Jobs: Data & Impacts on IT Workers,” Global Hiring Strategies Conference Labor & Worklife Program at Harvard Law School, Cambridge, MA, October 1st, 2004

“Offshore Outsourcing of Technology Jobs: Drivers,” Technology Review’s Emerging Technologies Conference, MIT, Cambridge, MA, September 29th, 2004.

“Offshore Outsourcing of American Jobs: Impacts on Careers,” Gannett Lecture Series on Globalization, Rochester Institute of Technology, Rochester, NY, September 23rd, 2004.

“Board of Economists Roundtable on Globalization,” Time Magazine, New York, NY, September 15, 2004.

“Offshore Outsourcing of Technology Jobs: Impacts & Policy Dialogue,” Rochester High-Tech Business Council & IEEE Joint Meeting, Rochester, NY, September 14th, 2004.

“Offshore Outsourcing & Offshoring of Technology Jobs: Impacts & Policy Dialogue,” IEEE HotChips Conference, Stanford University, August 23rd, 2004.

“Offshore Outsourcing & Engineering Employment,” IEEE & ASME Joint Meeting Pittsburgh, PA, August 19th, 2004

“Offshore Outsourcing & Offshoring of Technology Jobs: Impacts & Policy Dialogue for States,” ERC Conference, Council of State Governments, August 9th, 2004.

“Offshoring & International Students,” NAS Committee on Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States, Washington, DC, July 19, 2004

“Offshoring: Policy Alternatives,” presentation to US House Science Committee Staff, Washington, DC, June 21, 2004.

“Offshoring & the Indian-American Community,” plenary panel, South Asian Journalists Association, Columbia University, June 20, 2004.

“Offshore Outsourcing: Policy Options,” MIT Global Value Chains Workshop, Rockport, MA, June 14th, 2004.

“Win-Win Policy Solutions for IT Professionals & IT Companies,” plenary talk to Computer Systems Policy Project Retreat, Hilton Head, SC, June 3rd, 2004

“Offshore Outsourcing of Engineering Jobs: Data Issues & Policy Dialogue,” NSF/CPST/Professional Societies Workshop - Education and Employment in Science and Engineering: A Global Perspective, Arlington, VA, May 26th, 2004.

“Offshoring of Engineering Jobs,” plenary talk, Convocation of Professional Engineering Societies, National Academy of Engineering, Washington DC, May 3, 2004.

“Offshoring of Science Jobs: Actions Needed,” plenary talk, Council of Scientific Society Presidents, Washington, DC, May 1, 2004.

“Two Views on the Offshoring of U.S. Jobs, Including High-Tech,” plenary speech at American Association for the Advancement of Science’s Science & Technology Policy Forum, Washington DC, April 23rd, 2004.

“High-Skilled Migration and Offshore Outsourcing of Information Technology,” Woodrow Wilson International Center for Scholars roundtable, Washington, DC, April 22nd, 2004.

“H-1B, L-1 & Offshore Outsourcing,” plenary speech at IEEE-USA leadership workshop, Atlanta, GA, March 19th, 2004.

“Offshore Outsourcing & Manufacturing,” keynote speech at RIT Manufacturing Management & Leadership Alumni dinner, Rochester, NY, March 11th, 2004.

“Offshore Outsourcing: Policy Implications for Engineering R&D,” plenary speech at Engineering R&D Symposium, Washington, DC, March 8th, 2004.

“Offshore Outsourcing: Impacts & Policy Dialogue,” plenary panel, Symposium on the Future of Software, Board on Science, Technology and Economic Policy, National Academies, Washington, DC, February 20th, 2004.

“Offshore Outsourcing of Engineering: Policy Implications,” keynote luncheon speech at Kodak Remote Sensing Division Retirees Group, Rochester, NY, February 18th, 2004.

“The Truth about Outsourcing: What technology jobs are being outsourced, which technology companies are outsourcing and how big a deal is it?” speech to Council on Competitiveness“ Forum on Technology & Innovation - Senior Congressional Staff Retreat, Baltimore, MD, January 23, 2004.

“Shifting IT Resources Offshore: Panacea or Pandora’s Box?,” panelist for Northern Virginia Technology Council meeting, Fairfax, VA, December 18th, 2003.

“Offshore Outsourcing of Engineering: Implications for Engineers,” plenary talk at Western New York IEEE EDS Conference, RIT, November 5th, 2003.

“Information Technology Education: Future Challenges,” plenary talk at CIO Annual Conference, Phoenix, AZ, November 3rd, 2003.

“The New Competitiveness Debate: Offshore Outsourcing of Engineering,” Society of Women Engineers Annual Conference, Birmingham, AL, October 10th, 2003.

“Globalization and Outsourcing in Engineering,” Distinguished lecture at the Maine IEEE Chapter, Portland, ME, September 25th, 2003.

“The Globalization of the Information Technology Workforce: Policy Implications,” presented to Council on Competitiveness“ IT Forum, sponsored by U.S. Congresspersons Lloyd Doggett (D-TX) and Judy Biggert (R-IL), June 11th, 2003.

“Offshore Outsourcing of Engineering: Implications for Innovation Policy,” presented to Engineering & Public Policy Department, Carnegie-Mellon University, May 9th, 2003.

“Leveraging Technical Professional Societies to Improve U.S. IT Human Capital: Improving the H-1B Training Grants Program,” presented to National Academy of Sciences“ Committee for Workforce Needs in Information Technology, December 12, 2002.

“U.S. Technology Policy & Semiconductor Leadership,” presented to U.S. Department of Defense Advisory Group on Electron Devices, September, 24, 2002.

"U.S. Electronic Commerce Opportunities," presented to Incubator! America firms and sponsored by American Express, in April and October, 2001.

"U.S. Electronic Commerce Opportunities," customized workshop given to leading Romanian Software firms in Bucharest in March and September, 2001. Sponsored by the U.S. AID.

"Government Support for Electronic Commerce Adoption," presented to Japanese Ministry of Construction, Fairfax, VA on January 24, 2001.

"IT Workforce Trends and Policy Issues," IT Odyssey Conference, Capitol College, Columbia, MD, November 3, 2000.

"Electricity Generation, Transmission & Distribution Basics," U.S. International Trade Commission, Washington, DC, March 2000.

"Current Perspectives on Information Technology Labor Markets," presented to National Academy of Sciences“ Committee for Workforce Needs in Information Technology, July 6, 1999.





## **MEDIA PLACEMENTS**

Since beginning at Howard University in August 2014, there are hundreds of news articles that quoted me or referred to my research work.

My research work was featured in a November 11, 2015 front page story in the NY Times, "Large Companies Game H-1B Visa Program, Costing the U.S. Jobs."

[http://www.nytimes.com/2015/11/11/us/large-companies-game-h-1b-visa-program-leaving-smaller-ones-in-the-cold.html?\\_r=0](http://www.nytimes.com/2015/11/11/us/large-companies-game-h-1b-visa-program-leaving-smaller-ones-in-the-cold.html?_r=0)

The accompanying graphic, which was a full page in the print edition, was based on data that I had put together for the NY Times.

<http://www.nytimes.com/interactive/2015/11/06/us/outsourcing-companies-dominate-h1b-visas.html>

In addition to that, I had quotes in front page NY Times story about Disney laying off American workers, a feature story in the SF Chronicle, and many other major publications. I have had radio interviews with Public Radio International's "The World" radio program, NPR's On-Point, and television interviews with Al Jazeera America, Fox News, and Fox Business News.

The NY Times story was one of its most widely read and commented stories of the year.

NY Times immigration reporter, Julia Preston, who wrote the Disney story, described my work this way:

"The story started in March with a Senate hearing on the type of visas — known as H-1B — that were used for some of the foreign workers. Several witnesses mentioned the Disney layoffs, which had not been widely reported. Ronil Hira, a public policy professor at Howard University who has done careful research on temporary visas, provided a factual panorama of their uses and abuses."

I am recognized as an international expert on offshoring, engineering workforce policy, and high- skilled immigration. Television appearances on CNN (multiple), NBC Nightly News, CBS News, PBS NOW with Bill Moyers, PBS Newshour, Bloomberg TV, Fox Business News (multiple), CNBC (multiple), ABC News, as well as numerous local programs. Quoted more than five-hundred times by a variety of U.S. and foreign magazines and newspapers including: Time, Newsweek, New York Times, Wall Street Journal, Financial Times, Washington Post, BusinessWeek, Los Angeles Times, San Francisco Chronicle, Washington Times, Investors Business Daily, Reuters, Toronto Star, San Antonio Express, Times of India, Hindustan Times, Forbes.com, CIO Magazine, CFO Magazine, eWeek, Baseline Magazine, IT World, ComputerWorld, Manufacturing News, City Business Journals, Electrical Engineering Times, and many more.

## **AWARDS**

2017-18 IEEE Congressional Fellow, \$80,000.

2014 IEEE-USA George F. McClure Citation of Honor, "for educating the public on outsourcing legislation and its effect on the engineering profession."

2006 IEEE-USA President's Special Citation Award "for furthering public understanding of an economic trend that has profound implications for the engineering profession through his book Outsourcing America."

2004 IEEE-USA Citation of Honor for exemplary contributions toward achieving the aims of professional activities in the United States.

## **PROFESSIONAL**

Licensed Professional Engineer, Commonwealth of Virginia, 2000-present  
Senior Member of IEEE (current)  
Association for Public Policy Analysis & Management  
Labor & Employment Relations Association  
Founding Member of Industry Studies Association  
Elected member of RIT Academic Senate (2012)  
Vice President for Career Activities of IEEE-USA, 2005-2007  
Strategic Planning Committee for RIT's College of Liberal Arts, 2008-09  
Regular Reviewer for National Academy of Sciences reports  
Member, Research Roundtable on Technology and America's Primacy, Council on Foreign Relations, 2004-05.  
Member, National Innovation Initiative, Council on Competitiveness, 2004  
Chair, Career & Workforce Policy Committee of IEEE-USA, 2004  
Chair, R&D Policy Committee of IEEE-USA, 2002 & 2003  
Member of Workforce Committee of IEEE-USA from 1999-present  
Accreditor for ABET Engineering Technology programs

## **GRANTS**

2017-18 IEEE Congressional Fellow, \$80,000.

Consultant to National Science Foundation grant, "Pathways to S&E Professions: Investigating Persistence and Career Choice for Bachelor's and Master's Graduates," awarded to Rutgers University, PIs Hal Salzman and Michelle Van Noy. Award No. 1561687. Award date: April 12, 2016.

PI for NSF grant of \$87,658 to organize workshop on Engineering Globalization. Completed May 2012.

Rochester & the Innovation Economy Lecture Series, organized with Assemblyman Joseph Morelle, ~\$10,000 (RIT internal organizations), 2010.

RIT Immigration Policy Lecture Series, organized with communication professor Andrea Hickerson, \$9,000 (internal and external sponsors) 2011-12.

Commissioned two immigration policy papers, Economic Policy Institute, \$23,000.

Commissioned book chapter, Alliance for American Manufacturing, \$25,000.

Co-PI for "Globalization and the National Interest," funded by Alfred P. Sloan Foundation through Economic Policy Institute, ~\$300,000.

Commissioned paper, Science & Engineering Workforce Policy, Commission on Professionals in Science & Technology, \$13,500.

Consultant to U.S. House of Representatives' Committee on Science & Technology, \$20,000.

Provost's Learning Innovation Grant, with James Winebrake and Margaret Bailey, \$6,250.

Sloan Industry Centers Grant to study "Printing Industry Offshoring," approximately \$20,000, during calendar year 2005.