

Curriculum Vitae

Achintya Ray

Professor, College of Business, Tennessee State University

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Areas of Interest

Financial Statement Analysis, Data Science, Econometric and Statistical Modeling, Economic Implications of Cybersecurity with a special reference to banking and financial sector, Financial statement based measurement of efficiency and productivity, Economics of Innovation and R&D, Applied Microeconomics, Healthcare Economics and Policy.

Education and Training

Vanderbilt University, Nashville, TN, USA

Ph.D. (Economics, 2004), M.A. (Economics, 2003)

Dissertation Title: “Three Essays in the Economics of Health”

Dissertation Committee Chair: J. Foster, Members: M. Cohen, W. Collins, Y. Fan

Massachusetts Institute of Technology, Cambridge, MA, USA

Professional Education in Tackling the Challenges of Big Data (2015)

Professional Education in Cybersecurity: Technology, Application and Policy (2015)

University of Florida, Gainesville, FL, USA

Post Doctoral Bridge Program (*Finance & Accounting*, 2014, AACSB Endorsed)

Program Outcomes:

AACSB Endorsed **Scholarly Academic in Accounting.**

AACSB Endorsed **Scholarly Academic in Finance.**

Delhi School of Economics, University of Delhi, Delhi, India

M.A. (Economics, 1997)

University of Calcutta, Kolkata, India

B.Sc. (with Honors, 1995)

Major: Economics, Minors: Mathematics & Statistics.

Academic Appointments

Current Appointment

- **Professor** (*Department of Economics & Finance, College of Business*), **Tennessee State University**, 2016 – *Present*.

Previous Appointments

- **Associate Professor** (*Department of Economics and Finance, College of Business*), **Tennessee State University**, 2010 – 2016. **Tenured Since 2010**.
- **Assistant Professor** (*Department of Economics and Finance, College of Business*), **Tennessee State University**, 2004 – 2010.
- **Adjunct Professor of Management** (*Owen Graduate School of Management*), **Vanderbilt University**, *Fall – 2016 (Mod – I)*.
- **Senior Research Associate** (*Vanderbilt University Medical Center*), **Vanderbilt University**, 2003 – 2004.
- **Graduate Research Assistant** (*Vanderbilt Institute for Public Policy Policy Studies, Arts & Sciences*), **Vanderbilt University**, 2001 – 2003. (Research Assistantship supported by the **Robert Wood Johnson Foundation**)
- **Graduate Teaching Assistant**, (*Department of Economics, Arts & Sciences*), **Vanderbilt University**, 1999 – 2001.
- **Research Assistant**, (*Planning & Policy Research Unit*), **Indian Statistical Institute**, 1997 – 1999.

Honors, Grants and Awards

- **Special Lecture:**, (2018), Department of Commerce with Farm Management, Vidyasagar University, Medinipore, West Bengal, India. (July 20, 2018)
- **Keynote Address**, (2018), International Conference on Financial Sector: Issues, Challenges, and Strategies, Bhawanipore Educational Society College, India.
- **Keynote Address**, (2017), Golden Jubilee Commemorative International Conference on Emerging Issues in Accounting, Finance, and Taxation, Bhawanipore Educational Society College, India.

- George Mason University, Law & Economics Center Program on Economics & Privacy, (2016), **Travel Bursary** to Attend PEP Workshop for Economists on Consumer Protection Law & Economics, Arlington, VA.
- **Distinguished Keynote Address**, (2016), International Conference on Financial Inclusiveness, University of Calcutta – Calcutta Stock Exchange Center of Excellence in Financial Markets, India,
- **Keynote Address**, (2013), International Conference on Economic Liberalization and Capital Market Development: Indian Perspective, University of Calcutta – Calcutta Stock Exchange Center of Excellence in Financial Markets, India.
- **Keynote Address**, (2013), International Conference on Contemporary Issues Financial Institutions and Markets (Sponsored by the University Grants Commission and Indian Council for Social Science Research), Vidyasagar University, India.
- Asian Development Bank and The George Washington University, Washington, D.C., **Travel Bursary**. (Special invitation to Workshop on Inclusive Growth) (2012)
- **Keynote Address**, (2010), International Conference on Indian Financial System and the Global Scenario (Sponsored by the Indian Council for Social Science Research), Vidyasagar University, India.
- **Dean’s Faculty Research Grant**, College of Business, Tennessee State University. (Summer, 2009; Summer, 2007; Summer, 2006; Summer, 2005)
- United Nations University, World Institute of Development Economics Research, Helsinki, Finland, (2006), **Travel Bursary**. (Special invitation to present research on the occasion of launching of a new global initiative ”Advancing Health Equity”)
- **Faculty Research Grant**, (2005), Office of Business and Economic Research, College of Business, Tennessee State University.
- Vanderbilt University Graduate **Tuition Fellowship**. (1999 – 2003)
- Vanderbilt University Graduate **Summer Research Grant**. (2001)

Institutional & Professional Services & Leadership

Current Institutional Services

- **Member**, SACSCOC Steering Committee, Tennessee State University. (This steering committee is the leadership team in the university advising the Chief Academic Officer regarding the accreditation requirements and university’s readiness for Southern

Association of Colleges and Schools' (SACS) Commission on Colleges. The Southern Association of Colleges and Schools (SACS) is one of the six regional accreditation organizations recognized by the United States Department of Education and the Council for Higher Education Accreditation.)

- **Member**, Strategic Planning Implementation Committee, Tennessee State University. (A leadership team responsible for crafting the implementation plan and advising the President and the Cabinet about various aspects of strategic plan implementation for the university.)
- **Member**, Executive Committee of the Faculty Senate (*ex-Officio, as the immediate past Chair of the Faculty Senate.*)
- **Member** of the Board of Directors & **Member** of the Executive Committee, Kidney Clinics and Research Centers International, Inc. (KCRCI). (KCRCI is a not for profit 501(c)3 organization based in the USA. The main goal of KCRCI is to provide cheap dialysis treatment (at negligible capital cost) around the world to save lives suffering from end stage renal disease. The organization is also provides training and clinical advise to developing countries for capacity building.
- **Member**, Search Committee for the Assistant Vice President of Budget & Finance, Division of Budget & Finance, Tennessee State University.
- **Member**, Instructional Resource and Responsibilities Committee (AACSB institutional sufficiency standard), College of Business, Tennessee State University. (Technology resources, software requirements and maintenance, innovations in instructional pedagogy, using instructional resources to achieve recruitment, retention and graduation.)
- **Member**, Advisory Committee, University Honors College, Tennessee State University. (Determining the strategic directions of the University Honors College, Honors program, curriculum development etc.)
- **Member**, Promotion & Tenure Committee, Department of Economics & Finance, College of Business, Tennessee State University.
- **Member**, Business Advisory Board, Nashville State Community College, Nashville, TN. (Advising the Nashville State Community College faculty and administration regarding their business program, student placement, resource allocation, program development etc.)

Past Institutional Services

- **Chair, Faculty Senate**, Tennessee State University. (*Two year term: April 2016 - April 2018*)

Major Accomplishments as the Chair of the Faculty Senate

- Representing over 500 teaching, research, part time and full time tenured and tenure track faculty members in the shared governance discussions in the university.
- Implementation of the **Faculty Sick Leave Bank**.
- Implementation of the **Non-Instructional Assignment Grant** (A competitive grant process to free faculty time for research and creative activities. Akin to the **Academic Sabbatical**.)
- Finalizing the **policy governing the election of the faculty representative to the Board of Trustees & Completing the first successful election** of the faculty representative to the Board of Trustees.
- Implementing a completely **electronic curriculum approval process**.
- Initiating a comprehensive revision and update of the faculty handbook.
- Leading a Faculty Senate committee to explore ways to strengthen graduate & professional education.
- Working with the administration to implement **higher admissions standards**.
- Advocating for **higher faculty salaries** over multiple years. (President announced faculty raises for multiple years.)
- Advocating for a **minimum salary for all 9-month & 12-month faculty members**. (President announced minimum salary and implementation starts from the 2018 – 19 academic year.)
- Fully developing and securing Faculty Senate’s approval of a **Policy Governing the Faculty Participation in the Continuing Education and Training Programs**.
- Revising the **Student Grade Appeal Policy** and Securing Faculty Senate’s approval for the revised Grade Appeal Policy.
- Facilitating a guideline for **junior faculty mentoring and on boarding program**.
- Initiating the Faculty Senate’s involvement in the **development of a campus policy for student diversity engagement**.
- Fully developing and securing Faculty Senate’s approval for a change from the simple letter grades to a “+ / -” **system of grading**.
- **Successfully organizing meeting of the The Association of Tennessee University Faculty Senates (TUFS)** on the campus of Tennessee State University.
- Co-Chairing a leadership team raising over \$250,000 **in faculty and staff contributions** to the university scholarship fund.

- **Chair, Executive Committee of the Faculty Senate**, Tennessee State University. (*Two year term: April 2016 - April 2018*)
- **Member**, President's Administrative Council, Tennessee State University. (Advising the President of the University on Strategic Issues affecting the University. Also, responsible for the formalization, implementation and monitoring of the Strategic Plan.)
- **Member**, Endowment for Educational Excellence Budget Committee, Tennessee State University. (Advising the President of the University on the use of use of proceeds of university endowment for scholarship, student and faculty development, budget for Chairs of Excellence, new center investment etc.)
- **Chair-Elect of the Faculty Senate**, Tennessee State University. (One year term 2015 – 2016.)
- **Member**, Executive Committee of the Faculty Senate. (One year term 2015 – 2016).
- **Member**, President's Task Force on FOCUS Bill implementation (Also, a member of the Academic Affairs sub-committee on the Task Force), Tennessee State University. (The FOCUS Bill, signed by the Governor of the State of Tennessee replaces the Tennessee Board of Regents by individual university boards.)
- **Chair**, Economics Recruitment Committee, Department of Economics & Finance, College of Business, Tennessee State University. (Leading a successful search that started with well over 100 extremely competitive applicants.)
- **Chair**, Undergraduate Curriculum Committee (AACSB academic programs standard), College of Business, Tennessee State University. ((Undergraduate curriculum, graduation standards, new courses, assessment of learning, accreditation related reporting, student retention policies, appeals, retention and graduation policies etc.)
- **Member**, Undergraduate Curriculum Committee (AACSB academic programs standard), College of Business, Tennessee State University. (Undergraduate curriculum, graduation standards, new courses, assessment of learning, accreditation related reporting, student retention policies, appeals, retention and graduation policies etc.)
- **Member**, University Curriculum Committee, Tennessee State University. (Overall university curriculum matters, new programs, concentrations, majors, minors, course development etc.)
- **Member**, Faculty Composition and Development Committee (AACSB Faculty development standard), College of Business, Tennessee State University. (Faculty salary, faculty development, salary survey, design of metric related faculty compensation and merit pays, competitiveness analysis etc.)

- **Member**, Workforce and Community Development Advisory Board, Nashville State Community College, Nashville, TN. (Advising the Nashville State Community College's Workforce and Community Development unit regarding workforce development programming, outreach efforts, fundraising, and integrating short term career programs with long term career transition initiatives.)
- **Member**, Strategic Planning Committee, College of Business, Tennessee State University. (Providing overall strategic planning for the College of Business, curriculum matters, marketing plans, recruitment and retention plans, faculty hiring, competitiveness etc.)
- **Member**, General Education Assessment Committee - Institutional Review (SACS accreditation), Tennessee State University. (Responsible for assessment of learning, knowledge retention, program standards, assessment of learning for SACS accreditation purposes)
- **Chair**, Budget Committee, Faculty Senate, Tennessee State University. (University budget affairs, strategic finance, capital campaign, productivity management)
- **Member**, Academic Affairs Budget Advisory Committee, Tennessee State University. (Budgetary affairs for the academic affairs, academic schools and departments, strategic academic investments, program evaluation, faculty compensation, budgetary implications of academic unit reorganization etc.)
- **Member**, Economics Curriculum Committee, Tennessee Board of Regents. (Harmonization of economics curriculum across four year institutions and clarify the transition paths from two year colleges to four year colleges in accordance to Tennessee Laws)
- **Member**, Doctoral Program sub-Committee (A sub-committee of the Graduate Policy Committee), College of Business, Tennessee State University. (Planning for the Ph.D./DBA program in the College of Business)
- **Member**, Recruitment Committee, College of Business, Tennessee State University. (Faculty requirements, faculty sufficiency, area analysis and faculty recruitment)
- **Member**, Graduate Policy Committee, College of Business (AACSB academic programs standard), Tennessee State University. (Graduate curriculum, graduation standards, new courses, assessment of learning, accreditation related reporting, student retention policies, new programs, graduate program market analysis etc.)
- **Member**, Web Committee, College of Business, Tennessee State University. (Development of college intranet and internet)
- **Member**, Intellectual Contributions Committee, College of Business, Tennessee State University. (Research standards, standard for academic qualifications, faculty grants)

- **Member**, Committee on Internal and External Research Initiatives, College of Business, Tennessee State University. (Grant related initiatives, alignment of faculty expertise and college resources with grant opportunities, building cross functional researcher teams)
- **Member**, Graduate Research Day Organizing Committee, Vanderbilt University Department of Economics.
- **Chairman**, Survey Committee, Graduate Student Council, Vanderbilt University.
- **Co-Chairman**, Public Relations Committee, Graduate Student Council, Vanderbilt University.
- **President**, Vanderbilt India Association.
- **Treasurer**, Vanderbilt India Association.

Peer Reviewer Services for International Journals

American Journal of Public Health, Service Science (INFORMS), Japanese Economic Review, Asia Pacific Journal of Accounting and Economics, American Journal of Preventative Medicine, Journal of Developing Areas, Journal of Epidemiology and Community Health, The Manchester School, Applied Economics, Applied Financial Economics, Economics of Innovation & New Technology, Health Economics, British Medical Journal, Economics and Human Biology, Social Science and Medicine, Bulletin of the World Health Organization.

Examiner (External) of Doctoral Dissertations

Jawaharlal Nehru University (2010)
Vidyasagar University (2006, 2009, 2011)
Netaji Subhas Open University (2009)

Graduate and Undergraduate Teaching

Graduate Teaching: *Financial Econometrics, Information Systems and Statistics, Advanced Topics in Healthcare Economics & Management, Economics of Healthcare Organization, Regulation, and Legal Issues, Introduction to Health Economics and Management, Foundations of Economics and Finance*

Undergraduate Teaching: *Basic Econometrics, Commercial Bank Management, Quantitative Methods (Mathematical Economics), Principles of Economics: Microeconomics, Principles of Economics: Macroeconomics, Statistical Analysis I, Statistical Analysis II (Redesignated as Quantitative Methods), Intermediate Microeconomics, Urban Economics, Urban Land Resource Analysis*

Research and Publications

Book Chapters

1. **A. Ray**, (2017), "Economics of Discretionary Accrual, Fair Value Accounting, and Accounting Fraud: A Simple Introduction", In Lalit Joshi & Paramita Chakravarty (*ed*) "**Emerging issues in Accounting, Finance and Taxation.**"
2. **A. Ray**, (2016), "Effects of Competitive Structure on Loan Pricing and Credit Provisioning in Oligopolistic Banking Industry", In Kazuhiro Ohnishi (*ed*) "**Firms' Strategic Decisions: Theoretical and Empirical Findings**", Volume 2.

Academic Papers and Articles

3. **A. Ray** & M. Getz, (2018), "Public Finance Implications of Downward Trend in Urban Public Transit System: An Exploratory Review ", **Accounting and Finance Research**, Vol. 7, No. 3, pp. 119 – 137.
4. **A. Ray**, (2018), "Are Inventories Accretive? Lessons from Inventory and Earnings Relationship in the U.S. Capital Goods Sector ", **Accounting and Finance Research**, Vol. 7, No. 1, pp. 40 – 57.
5. A. Mukherjee & **A. Ray**, (2014), "Entry, Profit and Welfare Under Asymmetric R&D Costs", **The Manchester School**, Vol. 82, Issue 3, pp. 284 – 295.
6. **A. Ray**, (2011), "Prevalence Rates and Racial disparities in undiagnosed pre-diabetes in the US population: Evidence from the National Health and Nutrition Examination survey of 2007 – 08", **Economics Bulletin**, Vol. 31, No. 4, pp. 3240 – 3252.
7. **A. Ray**, (2010), "Strategic Technology Adoption and Optimal R&D Under Asymmetric Information", **International Research Journal of Finance & Economics**, Issue 36, pp. 7 – 15.
8. A. Mukherjee & **A. Ray**, (2009), "Unsuccessful patent application and cooperative R&D", **Journal of Economics**, Vol. 97, pp. 251 – 263.
9. **A. Ray** & I. Ray, (2009), "Stability of Housing Prices in Major US Cities: A Time Series Analysis of S&P/Case-Shiller Housing Price Indices", **Journal of Money, Investment, and Banking**, Issue 7, January, pp. 43 – 49.
10. **A. Ray**, (2008), "An Analysis of Corporate Social Responsibility through the Lens of Corporate Finance", **Money Manager**, Vol. 2, pp. 61 – 64.
11. **A. Ray**, (2008), "Development Planning In A Liberalized Economy: The Case of India", **Indian Economy Review**, Vol. V, September, pp. 150 – 161.

12. **A. Ray** & I. Ray, (2008), “Measuring Immigration Related Diversity in the US”, **European Journal of Scientific Research**, Vol. 23, No. 4, pp. 513 – 517.
13. **A. Ray** & I. Ray, (2008), “Intra-Household Allocation, Household Public Good, and Labor Force Participation of Women”, **International Research Journal of Finance & Economics**, Issue 21, pp. 135 – 141.
14. **A. Ray**, (2008), “The Nature of Healthcare: A Cross-National Time Series Perspective”, Available at SSRN: <http://ssrn.com/abstract=1319645>
15. A. Mukherjee & **A. Ray**, (2007), “Strategic Outsourcing and R&D in a Vertical Structure”, **The Manchester School**, Vol. 75, Issue 3, pp. 297 – 310.
16. A. Mukherjee & **A. Ray**, (2007), “Patents, Imitation and Welfare”, **Economics of Innovation and New Technology**, Vol. 16, No. 3, pp. 227 – 236.
17. **A. Ray** & S.N. Ghosh, (2007), “City-Size and Health Outcomes: Lessons from the USA”, **Economics Bulletin**, Vol. 9, No. 5, pp. 1 – 7.
18. **A. Ray**, (2007), “Are Racial Disparities in Diabetes in the USA Driven by Education Distribution?”, **Economics Bulletin**, Vol. 9 No. 2, pp. 1 – 18.
19. **A. Ray**, (2007), “A Time Series Analysis of Long Term Capital Formation in India”, **Vidyasagar University Journal of Commerce**, Vol. 12, March, pp. 21 – 31.
20. A. Mukherjee & **A. Ray**, (2006), “The Welfare Implications of Product Patent: A Simple Model”, **Journal of Financial Transformation**, August, Vol. 17, pp.: 36 – 38.
21. **A. Ray**, (2006), “A Class of Decomposable Poverty Measures With Public Transfers”, **Economics Bulletin**, November, Vol. 9 No. 3 pp. 1 – 8.

Research in International Conferences

22. **A. Ray** & B. N. Putatunda, (2018), “A Worrisome Explosion: Time Series Analysis of Kidney Cancer Incidence in the United States”, **American Society of Nephrology Annual Conference**, San Diego, CA, USA. (Scheduled for October 25, 2018, San Diego, CA, USA.)
23. **A. Ray**, (2018), “Macroeconomic Implications of Cybersecurity Challenges in Financial Sector”, **International Conference on Financial Sector: Issues, Challenges, and Strategies**, Kolkata, India.
24. **A. Ray**, (2018), “A Time Series Analysis of Structural Composition of Earnings in FDIC Insured Commercial Banking and Savings Institutions”, **Washington Business Research Forum**, Washington, DC, USA. (Abstract peer reviewed and accepted but could not present in person.)

25. **A. Ray** & B. N. Putatunda, (2017), “A Simulation of Demand-Supply Imbalance in Dialysis Care in India”, **American Society of Nephrology Annual Conference**, New Orleans, LA, USA.
26. **A. Ray**, (2017), “Market Outcomes in the Presence of Cybersecurity Challenges in a Competitive Banking Industry”, **Washington Business Research Forum**, Washington, DC, USA.
27. **A. Ray**, (2017), “Spatial Distribution of Asset Composition and Its Determinants In The US Banking Industry”, **Washington Business Research Forum**, Washington, DC, USA.
28. **A. Ray**, (2017), “Economics of Discretionary Accrual, Fair Value Accounting, and Accounting Fraud”, **Golden Jubilee Commemorative International Conference on Emerging Issues in Accounting, Finance, and Taxation**, Bhawanipore Educational Society College, Kolkata, India.
29. **A. Ray**, (2016), “Financial Inclusion and Cybersecurity: Building a Technology Driven Secure Development Solution”, **International Conference on Financial Inclusiveness**, University of Calcutta – Calcutta Stock Exchange Center of Excellence in Financial Markets, Kolkata, India.
30. **A. Ray**, (2013), “Critical Issues in Energy Finance with Special Emphasis to Renewable Energy: The Role of Markets, Institutions and their Intersections with Policies”, **International Conference on Economic Liberalization and Capital Market Development: Indian Perspective**, University of Calcutta – Calcutta Stock Exchange Center of Excellence in Financial Markets, India
31. **A. Ray**, (2013), “Contemporary Issues in Energy Finance: Markets, Institutions and their Intersections with Policies”, **International Conference on Contemporary Issues Financial Institutions and Markets**, Vidyasagar University, Medinipur, India.
32. **A. Ray**, (2010), “Anatomy of Financial Crisis: A Global Perspective”, **International Conference on Indian Financial System and the Global Scenario**, Vidyasagar University, Medinipur, India.
33. J.E. Foster & **A. Ray**, (2006), “Income Inequality and Self Rated Health in the United States: Does Education or Race Explain the Link?”, **Conference on ”Advancing Health Equity”**, *World Institute of Development Economics Research (WIDER)*, *United Nations University*, Helsinki, Finland.
34. T. Pincus, **A. Ray**, & T. Sokka, (2004), “Arthritis, Heart Attack and Both Diseases Concurrently Occur Substantially More Frequently in Individuals with Low Levels of Formal Education than in the General U.S. Population”. **Annual European Congress of Rheumatology**, Berlin, Germany. (*Abstract Identifier: SAT0383*)

Op-eds and other Writings in Popular Press

35. **A. Ray**, (2016), "The constitutional case for democratic socialism", **The Tennessean**, February 26.
36. **A. Ray**, (2015), "Nashville should lobby India's airlines to fly to BNA", **The Tennessean**, June 19.
37. **A. Ray**, (2013), "Exports drive economic growth, job creation in Tennessee", **The Tennessean**, July 30.
38. **A. Ray**, (2013), "TVA's Solar Energy Plan Needs More Support", **The Tennessean**, June 12.
39. **A. Ray**, (2013), "Power From the Sun: The Cost-Benefit Paradigm Of 'Green Electricity'", **The Statesman**, April 08.
40. **A. Ray**, (2013), "Run it on Diesel: The Economics of Road Transportation", **The Statesman**, March 04.
41. **A. Ray**, (2012), "The Plummeting Rupee: A Psychological Vote Of Confidence In The Dollar", **The Statesman**, May 22.
42. **A. Ray**, (2011), "Analyzing Guilts: Need For a Strong Human Rights Movement" **The Statesman**, December 21.
43. **A. Ray**, (2011), "The Idea of Democracy: Only An Autocrat Would Dismiss It As 'Western'", **The Statesman**, July 06.
44. **A. Ray**, (2011), "Fairy-tale India: The Eradication Of Hunger, Starvation, And Malnutrition" **The Statesman**, June 23.
45. **A. Ray**, (2010), "Great Federal Gamble: America's Gift to the Largest Trading Partners?" **The Statesman**, December 13.
46. **A. Ray**, (2010), "Garbage Vat Syndrome: Turning the Spotlight Inwards" **The Statesman**, November 11.
47. **A. Ray**, (2010), "The Medical Mart: Patient as a Consumer in a Corporate Ambience - II" **The Statesman**, August 23.
48. **A. Ray**, (2010), "The Medical Mart: Patient as a Consumer in a Corporate Ambience - I" **The Statesman**, August 22.
49. **A. Ray**, (2010), "Rhetorical Discord: Coping with the Current Economic Crisis" **The Statesman**, July 12.
50. **A. Ray**, (2006), "Negotiated Prices Aren't The Only Way to Save Folks Money", **The Tennessean**, November 26.