### **VITA**

# Swarnjit S. Arora

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#### **EDUCATION**

Ph.D., Economics, State University of New York at Buffalo, 1971 M.A., Economics, State University of New York at Buffalo, 1970 Diploma in the Social Science Research Methodology, Institute of Economic Growth, India, New Delhi, 1964 M.A., Economic Statistics, Delhi School of Economics, University of Delhi, 1964 B.Sc. (Hons), Mathematics, University of Delhi, 1962

#### DOCTORAL DISSERTATION

Error Components and Multipolar Migration Models

#### **CURRENT APPOINTMENTS**

Director, Institute for Survey and Policy Research, (previously known as Social Science Research Facility) University of Wisconsin-Milwaukee, 1982 – present

Professor of Economics, University of Wisconsin-Milwaukee, 2006 - present

#### PREVIOUS ACADEMIC POSITIONS

- Visiting Professor, Cambridge University, England, 1989-90
- Visiting Professor, Justus Liebig Universitat Giessen, Germany, May July, 1990; May June, 2001
- Visiting Professor, Department of Economics, Southern Methodist University, Dallas, Texas, 1980-81
- Associate Professor, Department of Economics, University of Wisconsin Milwaukee, 1978-2006.
- Assistant Professor, Department of Economics, University of Wisconsin- Milwaukee, 1972-78.
- Faculty Research Fellow, National Bureau of Economic Research, Cambridge, MA, 1972-75.
- Assistant Professor and Research Associate, Department of Economics, State University of New York at Buffalo, 1971-72.
- Research Analyst, Agricultural Economic Research Center, Delhi School of Economics, Delhi University, India, 1964-67.

### SPECIAL ACCOMPLISHMENTS AND HONORS

# **Special Accomplishments**

- 1. For longitudinal and Panel data, the world renowned econometric/statistics software Stata (Release 9, August 2005) uses i) command sa in program XT Reg for fixed, between and random effects and population averaged linear models; and ii) command re in program XTIV Reg instrumental variables models; as a standard estimation techniques developed by me and Swamy.
- 2. During the last ten years, as a principal/co-principal investigator, I received over \$3.5 million in research grants and contract work. Over the last twenty years this number is about \$5.0 million. These grants have generated an enormous indirect cost which is used for various purposes including the Chancellor's Award. The UWM Graduate School's Extramural Research Funding Report, Fiscal Year 2000-01 to 2006-07 lists me as one of the top six researchers from the Division of Social Sciences. This report is based upon only research grants, if contract grants are included, I will be ranked among top two in Social Sciences and in top 15 for the whole campus.

Through these grants, we established the first instructional purpose microcomputer lab for social sciences on the UWM campus. We also bought, on a cost sharing basis with the L&S Dean Office and the departments, microcomputers and software for all the social science faculty. We still run the GIS (Bolton293) and statistical (Bolton 296) labs and employ a very large number of graduate and undergraduate students for our CATI based survey lab in Bolton 809. Number of faculty members in quantitative and qualitative method research has received partial/full salary support.

- 3. In collaboration with the College of Letters and Science, I established the Kartar Singh Dhaliwal Professorship of Punjab/Indian Studies, September 1996. As a chair of the inter-disciplinary research committee, after national and international faculty search, I hired a well known political science scholar, Virginia Vandyke. Currently this chair is occupied by Dr. Ridhi Gosh of the Geography department.
- 4. Co-edited a Special Issue of Offshore Outsourcing," for the Indian Journal of Economics and Business, December 2004, pages 1-221. My papers on Spatial Econometrics and Error Component models have been extensively cited in the econometric literature.
- 5. As a service to the University of Wisconsin-Milwaukee, I have served as a Chair of the Academic Planning Budget Committee (2000-2002), Academic Program and Curriculum Committee (1997-98), Executive Committee of the Division of Social Sciences (1987-89), Computer Policy Committee (1992-94), Graduate Faculty Council (1987-88), Audit and Review of the International Studies Program (1997-98) and Learning Through Technology Roundtable Group appointed by Chancellor Zimpher (2001-02). I have also served as a member of numerous committees at the university and college level.
- 6. Organized a Fifth World Punjabi Conference, 1997. This was attended by over 750 scholars and policy makers from India, Australia, Canada, England, Pakistan and the United States. The main focus of the conference was the economic development of Punjab/India, welfare of the children of the Non-Resident Indians in the U.S. and other foreign countries. Dignitaries

attending the conference included Deputy Speaker of India's Parliament, Chief Minister and Finance Minister of Punjab, Yogi Harbhjan Singh Khalsa, Satguru Jagjit Singh Guru of Namdhan Sikhs, Congressman Kletchka, former Governor Marty Schriver, numerous state, county and city legislators.

- 7. Established faculty and student exchange programs with Guru Nanak Dev University. This university is rated five stars by the Indian University Grant Commission (equivalent to our NCA rating). I took the first group of 15 UWM and UW-Madison students to India and organized their classes in Indian political system, Indian culture and economic development. I also invited a number of scholars as visiting faculty to the UWM. One of our exchange students, Ms. Raminder Kaur from Physics was invited to attend the 55<sup>th</sup> meeting of the Nobel Laureates, held June 26-July 1, 2005 in Lindau, Germany.
- 8. I served as a consultant to the World Bank (1992-95), the Federal Reserve Bank of Chicago on their economic forecast for midwest project (1990-), and the City of Milwaukee-Budget Division, 1995-98.
- 9. Appointed as a Faculty Research Fellow to the prestigious National Bureau of Economic Research, (1972-75), and a Faculty Fellow to the Cambridge University, England, 1989-90.
- 10. Biography published in the Rise of Sikhs Abroad by Gurmukh Singh, a well known Indian Historian, 2003.
- 11. Listed in almost each and every Who is Who in the United States.
- 12. I serve as an Associate and Book Review Editor of the Indian Journal of Economics and Business published by the University of Colorado-Denver.

# **Special Honors**

- Certificate of Appreciation Award for Outstanding Service and Dedication to students, faculty
  and staff at the University of Wisconsin-Milwaukee, given by the Asian Faculty and Staff
  Association, November 4, 2005.
- First Prize, Best Supervisor Most Creative Category, UWM Staff Development Office, December 16, 2005
- Warner Bloomberg Award Presented for distinguished and exceptionally creative
  contributions in the interdisciplinary field of future studies and urban issues and
  acknowledged leadership, foresight and commitment to addressing complex public
  policy and social issues, May 25, 2000.
- Hind Rattan Award A highest award presented to the non-resident Indians for outstanding service, achievements and contributions. Presented on January 25, 2000, on the eve of the Indian Republic Day, at the 19 International Congress of Non Resident Indians, New Delhi, India. (Please note Hind Rattan is literally translated as Jewel of India).

- UWM Student Association Outstanding Faculty of the Year Award 1998-99. Presented for outstanding teaching, service and dedication to the students at UWM, April 28, 1999.
- UWM Distinguished Undergraduate Teaching Award Finalist. Nominated by my undergraduate and graduate students, May,1997.
- Appreciation Award for organizing and rendering valuable service to the 5<sup>th</sup> World Punjabi Conference, July, 1997.
- Distinguished Community Service Award, presented by the Sikh Religious Society of Wisconsin, July, 1997.
- Appreciation Award, An Najah National University, West Bank, November, 1991.
- UWM Distinguished Undergraduate Teaching Award Finalist. Nominated by the Department of Economics Executive Committee, 1975.

# **Areas of Teaching and Research**

Econometrics Sample Surveys/Statistics Regional Economics

#### SPECIAL INITIATIVE THROUGH THE INSTITUTE

In addition to performing standard duties of the budget and personnel management, writing strategic plans, calculating user fees reflecting an actual cost of providing services, coordinating services to faculty, staff and students on their computing needs, preparing and submitting research grants, working with the Institutional Review Board for compliance with various state and federal laws for protection of human subjects, exploring possibilities of new funding sources, keeping up with new techniques like network sampling, computer assisted telephone interviewing(CATI), WEB and e-mail based surveys, impact of answering machines on the response ratio, I have introduced the following new initiatives through the Institute. These initiatives have been very successful and have brought the University of Wisconsin-Milwaukee and our Institute well deserved recognition.

# **Monitoring Wisconsin – A Quarterly Newsletter**

To encourage research on issues relating to Wisconsin's economy, the Institute publishes a Monitoring Wisconsin Quarterly Newsletter. It portrays faculty and staff research at various stages of development. The newsletter has a circulation of about 600 and the mailing list includes legislatures, Chambers of Commerce, University Centers for Economic Development and interested faculty. The newsletter also provides longitudinal data and forecasts using state of the art Vector Auto Regressive forecasting models. It includes Milwaukee PMSA, Southeastern Wisconsin and Wisconsin. Since it starts in Spring 2004, we have included the following articles:

- "Wisconsin's Labor Market: Cycle or Trend?" by Swarnjit S. Arora and Okey P. Akubeze, Spring 2004.
- "Growth Potential of Wisconsin's New Economy," by Swarnjit S. Arora, Okey P. Akubeze and James H. Peoples, Summer 2004.
- "Municipal Living Wage Laws," by Scott Adams and David Neumark, Fall 2004.
- Growth Strategies for Small Cities: Can Wisconsin's Smart Growth Law Help?" by Swarnjit S. Arora, Okey P. Akubeze and Gregory Whitten, Winter 2004.
- "The Economic Well-Being of the Elderly Wisconsin," by Keith Bender and Bjorn Eberhardt, Spring 2005.
- "Community Involvement and Trust in Wisconsin," by Thomas S. Moore, Summer 2005.
- "The Economic Effects of Ban on Smoking in Bars and Restaurants: An Analysis of Industry Employment," by Scott Adams and Chad Cotti, Fall 2005.
- "Wall Mart and Local Labor Markets," by Scott Drewianka and Dale Johnson, Spring 2006
- "The Older Workforce in Wisconsin," by Keith Bender, Winter 2007
- "Wisconsin Welfare Reform and its Consequences on Employment, Earnings and Income of Poor Single Mother," by Swarnjit Arora, Thomas Moore and Laurie Turtenwald, Spring 2008

### **Computer Literacy**

### i) Courses for credit:

# Introduced the following new courses

Social Science 534-100	Microcomputing Basics
Social Science 534-103	Microcomputing in the Social Sciences
Social Science 534-104	Internet Applications for the Social Sciences

These courses are extremely popular, and provide students hands on experience in micromputing. Staff members work on a one on one basis with the students. Small class size (maximum of 15), helps retention of students. The credit generated per semester are greater than those of the well established programs like International studies, major or masters in human resources and labor resources.

# ii) Continue Education Courses:

During the late eighties and early nineties, through the Staff Development Office of Continue Education and the Division of Outreach, UWM; we offered a large number of continue education credit courses and workshops on word processing, spreadsheets and database management.

### iii) Non-credit workshops on computer software:

On a need basis we offer workshops on the statistical and GIS software. These include STATA, Gauss, EVIEW, TSP, SPSS, SPSS(micro), SAS, Limdep, Systat, ArcInfo, MapInfo, etc.

# **Faculty and Student Support**

# i) Microcomputers and hardwiring of offices for faculty

On a cost share basis with the Associate Dean for the Social Sciences and the departments, we bought microcomputers for all social science faculty. We also paid for the hardwiring of the social science faculty offices in Bolton Hall, Holton Hall and Mitchell Hall. On a cost share basis, we also subsidized the software and printers purchases.

### ii) Consortium Memberships

Acquired membership in the Inter-university Consortium for Political and Social Sciences. Currently the annual fee for this consortium is paid by the L&S and Graduate School and a faculty from the department of Sociology is the representative to the ICPSR. A number of students and faculty from all disciplines still come to us for data help. In collaboration with the Business School and the Computing Service Division, we acquired the National Bureau of Economic Research macro database. Later on this data was marketed by the Citibank.

# iii) Site Licenses

Acquired site licenses for Gauss, Limdep, Stata, Systat, EVIEWS, and ArcView. These software are extensively used by the social science faculty and the students.

### iv) Terminal and Computer Loans

Before we could buy microcomputers for faculty through the faculty computer replacement program, as indicated in (i) above, we introduced a loan program for terminals and microcomputers. This program was extensively used by about 55 faculty.

### **Survey Research**

# i) Introduction to Sample Survey Research

Through the Institute we offer series of lectures on basics of sample surveys. These non-credit courses are extremely popular among social science students and on completion they receive a certificate. Hopefully, we can generate enough interest in survey methodology so that they can take courses in Political Science, Sociology and Communication departments for credit. Over time, we have offered following lectures:

- What is Survey?
- Questionnaire Design
- Mode of Data Collection
- Sampling and Managing Sample Errors
- Network Sampling
- Non random sampling designs
- Inferences

### ii) Social and Political Survey of Milwaukee MSA: 1986-96

We started the Social and Political Survey of Milwaukee MSA in 1986 and completed five waves of this survey. About two-thirds of the questions were kept unchanged and one-third was changed to reflect contemporary issues. Five waves produced a very rich longitudinal data base which is extensively used for instructional and public policy purposes.

### iii) Greater Milwaukee Survey: 1997-

We started this very popular Omnibus survey in 1997. The clients pay for a subset of their questions and they receive a report on these and common demographic questions.

### iv) Wisconsin Poll: 1998-

The Wisconsin Poll is a quarterly survey of residents (age 18 and over) of Wisconsin on Political and Public Policy Issues. The Wisconsin Poll provides decision makers with an opportunity to gather high quality, low cost public opinion data.

As an Omnibus survey, the Wisconsin Poll consists of multiple sets of questions purchased by different clients for their proprietary use. Although the questions each client ask are proprietary, the overhead costs if the survey shared by all clients, lower the cost per question. We provide assistance in defining research objectives or need for information, careful pre-testing of each question, cross tabulation and study report.

### **Computer Labs**

# i) Undergraduate Instructional Microcomputer Lab

We established the first microcomputer instructional lab in 1987 using 21 XT computers and a Zenith 286 as a server. This lab was upgraded to 486 microcomputers in 1992 and again to Pentium II in 1997, Pentium III in 2001 and Pentium IV in 2004. The capacity of the lab was increased to 33.

# ii) Graduate Student/GIS Instructional Lab

We established a second microcomputer instructional lab for graduate students in 1992. This consisted of advanced computer (by that time standard) and software. In 1997, we expanded this lab to provide extensive GIS support; the lab was upgraded in 2001 and again 2004. Its capacity was also increased to 31 computers.

### iii) Graduate Student Research Lab

In 1986, we established a graduate student terminal research lab in Bolton 809. This lab was hardwired to Univac 1106 and later to Convex. We converted this lab to microcomputers in 1992 and transferred the original lab to Bolton 859. In 1998, we gave these computers to teaching assistants.

# iv) Computer Assisted Telephone Interviewing (CATI) Lab

We established a state-of-the-art CATI lab with 21 workstations. These computers are local area networked to an independent server and have and Query software running on them.

# **Econometric Model and Impact Studies**

Using time series and econometric techniques, the Institute can provide a quarterly forecast of the Wisconsin economy by sectors. To assist policy workers and businesses, impact studies using input-output models and data collected from sample surveys and the Bureau of Economic Analysis are also conducted. The following projects have been completed through the Institute.

"Community Economic Impact Study of Proposed Kenosha, Racine and Milwaukee Commuter Rail," January 2007 (with Peter Akubeze)

"Economic Impact of the Milwaukee County Zoo," December 2006 ( with Peter Akubeze and Laurie Turtenwald)

"The Economic Impact of the Milwaukee Brewers," report prepared for the Milwaukee Brewers Baseball Club (with Peter Akubeze), June, 2005.

"Growth Strategies for Small Cities: Impact of incentives to Attract Investment," a paper presented at the 15<sup>th</sup> Conference on Governing the Small City in Times of Fiscal Crisis, October 1, 2004 (with Peter Akubeze and Greg Whitten).

"Growth Potential of Wisconsin's New Economy," October 2003 (with James People and Peter Akubeze).

"Bayshore Town Center Development Project – Economic Impact Analysis," December 2003 (with Peter Akubeze and Greg Whitten).

"Wisconsin Forecasts – A Quarterly Report of Wisconsin Economy," Summer 1999.

"A Spatial Prior for Baynesian Vector Autoregressive Regional Forecasting Model, November 2002.

"Regional Investment Models and Specification Test," October 2001 (with Peter Akubeze).

"Labor Market Study for the City of Milwaukee," May 1999 (with John Pawasarat).

"Analysis of the Post Secondary Education and employment Experiences of Ten Years of High School Graduates at UWM 1985-95, August 1999 (with John Pawasarat).

"Collaborative Project to Develop Family Based Employment and Economic Indices for Milwaukee Central City Neighborhoods and the Milwaukee Metropolitan Area," April 1998 (with John Pawasarat).

"Survey of Job Opening in Milwaukee Metropolitan Area," April 1996.

### **Interdisciplinary Seminar Series in Quantitative Methods**

The Institute offers regularly interdisciplinary seminar series in quantitative methods. The objective of this series is to keep faculty in the social sciences abreast of the latest development in social science methodology, including new application of existing techniques and relevant computer software. The presentations may explore ways to adopt advancement in one field say economics, to another filed, such as sociology or history. The topics have included:

- Recent Application of Cluster Analysis
- The uses of Cohort Analysis for Study Social Change
- Policies which lowered Mortality: A First Iteration
- Combining Quantitative and Qualitative Methods to Study White Racial Attitudes
- Sample Selectivity as a Proxy Variable
- Econometric Problem with Convex Budget Sets
- Pooling of Time Series and Cross-sectional Data
- Path Analysis
- Network Sampling Technique

# **Workshops Organized**

Organized in Collaboration with L'Institue, a day long workshop on "The Development of Milwaukee's Economy," May 7, 2004.

Organized a Symposium in the Regional Forecasting Model conducted by Regional Econometric Models Incorporated of Cambridge, MA, November 5, 2003.

Organized a Conference on Macro Economic Prosperity Through Monitoring Technology," for the Delegation of the Beijing Statistics Bureau, May 10, 2002.

# RESEARCH AND RELATED ACTIVITIES

### **Grants and Awards Funded**

### **Major Research Grants**

- "Busted! Over the Limit Under Arrest, Safety Belt Use and Alcohol Mobilization Survey Research", (ten projects with pre and post media coverage), The Wisconsin Department of Transportation, January, 2004 to September 2008, \$275,750
- "Evaluation of Rural Safety Belt Campaign," funded by Wisconsin Department of Transportation, six surveys, \$100,500
- "Evaluation of Services in Bureau of Milwaukee Child Welfare," funded by State of Wisconsin and UW-Madison Institute for Poverty Research, Wave-1 during 2000-02 for \$228,930; Wave II, during 2002-04 for \$194,220. Total for both waves \$423,150

- "Panel Study of Families Seeking Assistance from W-2". UW-Madison's Institute of Poverty Research; Wave-1, March 1999; Wave 2, June 2000 and Wave 3, March 2002, \$640,000.
- "Survey of Parental Attitudes: Do parents want to be notified when their teenagers seek prescription for contraceptives." Funded by the Family Training Program, Indiana Family Health Council, February, 2002, \$57,500.
- "Analysis of the Post Secondary Education and Employment Experience of Ten Years of High School Graduates at UWM, 1985-95." Funding agencies are Milwaukee Public Schools, Milwaukee Area Technical College and the Vice Chancellor's office at UWM, August, 1999. (Co-Principal Investigator with John Pawasarat), \$75,000.
- "Milwaukee County Citizen Satisfaction Survey." Funded by the Milwaukee County, October, 1999, \$22,000.
- "Learning Statistics Through Technology," Funded by UW-System, April, 1997. (Co-Principal Investigator), \$12,000.
- "Project New Hope Neighborhood Survey", Funded by the Manpower Demonstration Research Corporation, N.Y., Phase I and II, June, 1996, \$143,700.
- "Networking Environment Databases of the Coastal Laboratories,". Funded by The University of Maryland Center for Governmental Sciences Sea Grant, June, 1996, \$40,000.
- "Milwaukee Community Outreach Partnership Center," U.S. Department of Housing and Urban Development, (Co-Principal Investigator and Co-Coordinator for the Labor Market Study), \$1,000,000 including \$500,000 matching funds from the University of Wisconsin-Milwaukee, October, 1995.
- "Labor Market Study of the City of Milwaukee". Funding agencies: The Consortium of Bader Foundation, Milwaukee Foundation, The City of Milwaukee, Milwaukee Area Technical College, and the Milwaukee Sewerage Commission, April 1993 98. (Co-Principal Investigator with John Pawasarat), various grants of \$125,000.
- "Proposal to establish at the UAE University A Center for Data Management and Policy Studies," January 1993 to October 1993, (Co-Principal Investigator with Mark Tessler), \$12,000.
- "Wisconsin Entrepreneurial Climate Study," Wisconsin Housing and Economic Development Agency and Marquette University, March 1992 to January 1993, \$13,000.
- "Industry Study City of Milwaukee". Funded by The Bader Foundation, November 1992 April 1994, (Co-Principal Investigator with John Pawasarat), \$30,000.
- "Interdepartmental Faculty Training on Geographic Information System Software," Faculty Development Program, University of Wisconsin System, February 1992 December 1992, (Co-Principal Investigator), \$8,815.
- "Tax Incentives and Capital Spending in a State Economy," National Science Foundation

   Department of Revenue, State of Wisconsin, 1981-82, (Co-Principal Investigator with George Perkins), \$10,457.

- University of Wisconsin-Milwaukee, Great Lake Research Center Award, 1976, \$5,000.
- University of Wisconsin Milwaukee, Graduate School Research Award, 1974-75, 1977-78, \$14,000.
- National Bureau of Economic Research, Faculty Research Fellowship Award, 1972-73, and December 1973 January 1975, \$17,500.

# **Major Contracts**

- "Economic Impact Study of Kenosha, Racine and Milwaukee Commuter Rail Project," funded by Southeastern Wisconsin Regional Planning Commission, October 2006, \$25,000
- "Cost of Maintaining Exempt Status: A Survey of Charitable Organizations," funded by the U.S. Department of Treasury through the University of St. Thomas, August 2006, \$34,5000
- "Hurricane Katrina Survey Project,", funded by Jackson State University, August 2006, \$11,000
- "Ideal Survey 2005-06:Diversity & Inclusion Practice in the Workplace, funded by the UWM Institute for Diversity, Education and Leadership, September 2005, \$7,500
- "Legal Negotiation Project". Funded by Marquette University Law School, (Principal Investigator Professor Andrea Schneider), March, 1999, \$11,710.
- "Survey on Uninsured Motorists". Funded by the Center for Consumer Affairs, UWM, (Principal Investigator Professor James Brown, UWM), 1998-99, \$27,602.
- "Omnibus Survey of Greater Milwaukee", Funded by the United Way, the City of Milwaukee, and the Milwaukee County, May, 1997, \$25,000.
- "Violence Against Women Prevention Project Waves I, II, and III", (Principal Investigator Audrey Begun), 1996-98, \$21,000.
- "Working Time Arrangements and Family Life: A Study of Teachers". Funded by The Sloan Foundation, (Principal Investigator Professor Robert Drago), April, 1996, \$78,250.
- "Milwaukee Homicide Project", funded by the State of Wisconsin, (Principal Investigator Professor Harold Rose), May, 1995, \$17,660
- "Evaluation of Work Experience and Job Training Programs", funded by The Wisconsin Department of Health and Social Services and matching funds from the U.S. Department of Health and Human Services, (Principal Investigator John Pawasarat), 1990-92, \$100,500.
- Numerous other contracts from the University of Wisconsin-Milwaukee Administration, City of Milwaukee, Milwaukee Public Library, Whitefish Bay Village, various hospitals and the private sector. \$350,000 over the last ten years.

### Major Research Grants Applied but not funded

"Long range Planning Study of the Men and Women Basketball Program of MCC Members Schools," Midwestern Collegiate Conference, February, 1998, \$51,760.

"Subclinical Cardiovascular Disease Study: Field Center - A Longitudinal Study from September 1, 1998 to August 31, 2007," submitted jointly with Professor Clarence E. Grim, M.D. of the Medical College of Wisconsin to the National Institute for Health, \$648,655.

"Learning Through Interactive Focus Group Technology", submitted jointly with Dr. Andrew E. Smith to the Central Investment Fund Proposals, UWM, April, 1998, \$142,000.

"Collaborative Project to Develop Family-Based Employment ad Economic Indicies for Milwaukee Central City Neighborhoods and the Milwaukee Metropolitan Area", submitted jointly with John Pawasarat, Director of Employment and Training Institute to the Central Investment Fund Proposal, UWM, April, 1998, \$140,000.

"Restructuring and Worker Displacement in the Midwest", a research grant submitted by the Consortium of the UWM, University of Michigan, University of Indiana, University of Illinois, and the Federal Reserve Bank of Chicago to the Economic Development Agency, August 10, 1995, \$1,000,000 over five years. Each university share (\$250,000).

"Evaluating the Effectiveness of Alliance Intervention", AT&T through the Federal Reserve Bank of Chicago, April 15, 1995, \$50,000. Grant not funded after three rounds of review.

"Sample Survey of Ambrosia Chocolate Factory Employees," Center for Urban Affairs and Policy Research, March 1993, \$16,550.

"Government Activities and Behavioral Adaptation", submitted to the American Council of Learned Societies, German American Cooperative Research, August, 1991, \$30,750.

"Sample Survey Laboratory for Social Sciences", a proposal submitted to the National Foundation, October, 1990, \$46,956.00.

### **Major Research Grants under Review**

"Panel Study of Families Seeking Assistance from W-2, Wave II", Submitted through the Institute of Poverty Research, University of Wisconsin-Madison to the Joyce Foundation and the State of Wisconsin, \$231,000.

"Evaluation of Services in the Bureau of Milwaukee Child Welfare", submitted in collaboration with Professor Mark E. Courtney, School of Social Welfare, University of Wisconsin-Madison to the State of Wisconsin, \$430,000.

#### **PUBLICATIONS**

### **Articles in Journals**

"Importing Jobs? The Impact of Global Outsourcing on Wages in Indian Manufacturing," <u>Indian Journal of Economics and Business</u>, December 2004, pp. 137-152 (with Avik Chakrabarti)

#### Abstract

Exporting U.S. jobs to India has attracted enormous attention in the recent past as the potential for India to remain a desired destination for outsourcing continues to be stronger than ever. At the same time the wedge between the skilled and unskilled wages is widening in India. With this backdrop the paper takes a host country perspective on the effects of global outsourcing on the skilled-unskilled wage differential in the Indian manufacturing sector. A theoretical model of outsourcing is developed that combines elements of the trade literature on imperfect competition with the strategy literature on multinationals. A structural form wage equation, derived from the theoretical construct, is estimated. We conclude that outsourcing has had a significant widening effect on the wedge between the skilled and unskilled wages in Indian manufacturing.

"Bilateral J-Curve between India and her trading partners," <u>Applied Economics</u>, June 2003, vol 35, pp. 1037-41 (with Mohsen Bahmani and Gour Goswami).

# **Abstract**

Previous studies that investigated the short-run and the long-run effects of real depreciation of the Indian rupee on her trade balance employed aggregate data and provided insignificant results. A few studies that have considered the bilateral trade balance of industrial countries, have argued the lack of significant results could be due to aggregation. This paper employed disaggregated bilateral data from India against her seven largest trading partners to investigate the short-run and the long-run response of the trade balance to currency depreciation. The methodology was based on a new cointegration technique advanced by Pesaran and Shin and Pesaran et al., known as the autoregressive distributed lag approach. The main conclusion of the paper is that even though the J-curve pattern did not receive any support, in the long-run real depreciation of the rupee against the currencies of Australia, Germany, Italy and Japan has positive impact of India's trade balance with each country.

"Offshore Outsourcing – An Overview," <u>Indian Journal of Economics and Business</u>, December 2004, pp. 1-9 (with Harjit K. Arora)

# Abstract

The comparative cost theory dictates that through free trade welfare of both countries, source and the host, are maximized but short run adjustment are not taken into consideration. Human cost to the displaced workers can not be ignored and the process of adjustment is not easy. In the host county, it can give rise to imbalance between skilled and unskilled labor and without good tax laws, income inequality can increase. In this paper we provided an overview of offshore outsourcing. It divides up the issues of outsourcing into five components. These are i) Effects on International Relations through historical analogies; ii) international perspective and re-assessment of outsourcing; iii) affects on restrictive trade policies; iv) affects on Information technology and pharmaceutical industries, and v) Problem in host countries. A summary of fourteen papers is presented in the overview.

"Is the Economic Way of Thinking Regarding the Environment Mainstream for Teachers in Public and Private Schools," <u>Journal of Private Enterprise</u>, volume 19, No. 1, Fall 2003, pp. 93-100, with William L. Holahan and Mark C. Schug).

#### <u>Abstract</u>

Debates in environmental economics often focus on free markets versus the heavy hand of government. We take the view that the "economic way of thinking" is a better description for referring to our interest in environmental efficiency. Disagreements about the environment might

better be described as light hand of government versus the heavy hand of government. When wielding a heavy hand, government seeks a substitute for the role of markets as it imposes a quantity regulation, such as bans on lawn watering or car washing or on the killing of certain species. When wielding a light hand, the government seeks to complement the market by inserting only what is missing, and then letting the market work. In environmental economics, what is usually missing is a key property right, leading inevitably to prices that do not reflect the opportunity cost of resources. This paper presents some empirical results regarding whether high school teachers take the economic way of thinking seriously as they approach environmental issues. The paper reports on the results of asking certain questions of high school teachers in both private and public schools in Wisconsin.

"Can Free-Market Environmentalism be Mainstream? Teachers' Attitude about Economic Perspectives on the Environment," <u>The Social Studies</u>, September/October 2000, pp. 232-35 (with William L. Holahan and Mark C. Shug).

#### Abstract

It is commonly believed that the free market environmentalism is gaining widespread support among a growing number of economists. But is it likely to gain support among teachers? For several reasons, teachers might object to analysis. Most of the teachers work in public schools, which are not market oriented. The public school tend to be heavily regulated, the compensation is based upon salary schedules – a system insensitive to market conditions, and unions views about education reforms are often critical of economically oriented changes to increase competition. In this paper we examine the view of teachers in public school of Wisconsin. The interviewers posed questions about attitude toward market approaches (8 questions), facts about environmental improvements (4 questions) and doomsday orientation. In addition, numerous demographic questions were asked.

"Alternative Approaches to Spatial Autocorrelation: An Improvement Over Current Practices," <u>International Regional Science Review</u>, Fall 1977, pp. 67-78 (with Murray Brown).

### Abstract

To avoid ambiguity in the specification of weighting matrix W, in this paper we propose the joint generalized least squares, equicorrelated error terms, and random coefficient regression model as alternative solutions to the problem of spatial autocorrelation. The approaches are subject to few or no personal biases, yet they are able to resolve problem.

"Error Components Regression Models and Their Applications," <u>Annals of Economic and Social Measurement</u>, December 1973, pp. 451-61.

#### Abstract

This paper develops an operational method for estimating mixed error components regression models when the variance-covariance matrix of the disturbance term is unknown. Through Monte Carlo studies, the relative efficiency of the resulting pooled estimator is compared with 1) an ordinary least squares estimator based on data aggregated over time, 2) the covariance estimator, 3) the ordinary least squares estimator, and 4) a generalized least squares estimator based on a known variance-covariance matrix. For small T and large p (a common situation with time series data) this estimator definitely performs better than all other estimators with unknown variances.

"The Exact Finite Sample Properties of the Estimators of Coefficients in the Error Components Regression Models," Econometrica, March 1972, pp. 261-75 (with P.A.V.B. Swamy).

#### Abstract

This paper develops an alternative estimator of the variance-covariance matrix of an error consisting of three random components. Using this estimator, a feasible Aitken-type estimator for the coefficient vector is developed. Since it is not possible to choose an estimator on the basis of asymptotic efficiency, some small sample properties of this estimator are derived and are compared with those of other estimators of the coefficient vector by using a bivariate numerical integration program.

"Firm Data and Industry Aggregates in the Analysis of Diversification and Integration," <u>Annals of Economic and Social Measurement</u>, January 1972, pp. 37-42 (with Michael Gort and Robert McGuckin).

# **Abstract**

Using the Dun and Bradstreet sample of diversified manufacturing firms, we explore whether valid conclusions can be drawn from industry aggregates about decisions of firms to diversify or to integrate their output. We conclude that even with highly conglomerate two-digit categories, average diversification, for industries is a meaningful concept. This paper further demonstrates that the principal secondary activities of the diversified firms do not appear to have been undertaken for the purpose of serving the input requirements, or marketing needs of the primary activities.

#### **Edited Volume**

Edited a Special Issue of Offshore Outsourcing", for the Indian Journal of Economics and Business, December 2004, pages 1-221, (with Harjit K. Arora).

#### Abstract

This special issue of he Journal of Economics and Business explores implications of offshore outsourcing (outsourcing, henceforth) from point of view of the source and host countries. The comparative cost theory dictates that the welfare of both countries. The comparative cost theory dictates that the welfare of both countries is maximized through free trade, but short-run adjustments are not taken into consideration. Through outsourcing, which has been going on for some time, country like India with a relatively cheap labor may develop infra structure shortages and sectoral imbalances, while the country like the U.S. may develop loss of jobs. However, outsourcing may not be the only reason for that. In case of manufacturing, increases in productivity due to the improved manufacturing technology, just in time production, and the cyclical decline in the demand for the durable goods, may have caused unemployment. As economy improves, some of these jobs will be restored. However, others requiring low level manufacturing activities will be lost forever to countries like India and China. Human cost to the displaced worker can not be ignored but some extent it can be mitigated by job training and technology grants.

The issue is divided into five sections. Section 1, defines the offshore outsourcing issue, provides historical analogies and speculates on the impact of shocks to the U.S. economy, and finally gives some perspective on the political benefit from offshoring in terms of international relations. Section 2, defends outsourcing and cities Japan, may developed countries in Europe, and even India and China as outsourcers. Affects of protectionist trade policies are discussed in section 3 followed by effect on IT and Pharmaceutical industry in section 4. Finally, the journal presents studies on as to how a host country's industries and labor employment and wages are affected by an outsourcer. This section concludes by analyzing the regulatory environment present in India and makes recommendations so that Indian IT industry can emerge as a leader in Technology.

Papers from distinguished economists like Professors J. Bradford DeLong and Stephen S. Cohen, Solomon W. Polachek, Peter Koveos and Linghui Tang, William J. Polley, Kokila Doshi and many others make this issue as a rich and valuable source of information.

# **Chapters in Books, Published Reports and Conference Proceedings**

"Growth Strategies for Small Cities: Impact of Incentives to Attract Investment," proceeding of the 15<sup>th</sup> Conference on Small City and Regional Community," Managing Local Government in Times of Unrelenting Pressures," (with Peter Akubeze and Greg Whitten), forthcoming.

### Abstract

In 1999, the Wisconsin's Legislature enacted new legislation known as "Smart Growth" law that greatly expanded the scope and significance of comprehensive plans within the state. The law requires that the following nine elements be addressed in a comprehensive plan. These are: i) issues and opportunities, ii) housing, iii) transportation, iv) utilities and community facilities, v) agricultural, natural and cultural resources; vi) economic development, vii) intergovernmental cooperation, viii) land use, and ix) implementation. Our focus in this paper is on Economic Development. We examine the technology sector development; restructuring away from manufacturing; economic development strategies; Brownfield redevelopment and redevelopment of other underutilized sites; and issue of braindrain. We develop an instrument to evaluate impact of incentives on development.

"Debt and the Stock Market Returns in the U.S.," Informational Business Trends: Contemporary Readings, 2004, Fullerton and Moore Publishers (with Harjit K. Arora and Greg M. Lepak).

### <u>Abstract</u>

During the 1990s, the stock market returns rose to unprecedented levels. At the same time the nonfinancial sector debt and international inflows of capital also increased rapidly. This paper empirically estimates the relationship between stock market returns and the debt by employing vector autoregressive techniques. We find a significant impact of the debt on stock market returns.

"A Utility Maximization Approach to Multipolar Migration Under Uncertainty: A Case Study of Inter-regional Migration in Italy," in <u>Regional-National Econometric Modeling</u>, Edited by M. Brown, M. Di Palma and B. Ferrara, Pion, London, England, December 1978, pp. 29-46 (with Murray Brown).

### Abstract

In this paper we derive a specification of the gross regional migration equation by maximizing over time an augmented utility function under uncertainty. The utility function considered is of a constant elasticity of substitution form. Resulting model is very general and subsumes as special cases several models in the literature, but more important, the form, the parameters, and the variable of our specification are not derived in an ad hoc manner. The stochastic specification of this model is estimated by using Italian panel data over 29 regions and 10 years.

"Impact of Differential Taxation Policies in Regional Growth in Italy," in <u>Regional-National Econometric Modeling</u>, Edited by M. Brown, M. Di Palma and B. Ferrara, Pion, London, England, December 1978, pp. 146-61.

#### Abstract

This paper examines the tax structure in Italy and demonstrates that the differential taxation policies have not been successful in reducing disparity between rich North and poor South. I further show that due to the presence of various tax loopholes, effectiveness of the programs of Cassa per il Mezzogiorno is diminished. Some alternative policy measures are also suggested to achieve equitable growth. Almon distributed lag of degree two and first-order autoregressive procedure are used for estimation of the model.

"An Econometric Model of Inter-regional Trade Under Insufficient Information: A Case Study of Inter-regional Trade in Italy," <u>Regional-National Econometric Modeling</u>, Edited by M. Brown, M. Di Palma and B. Ferrara, Pion, London, England, December 1978, pp. 136-45.

### Abstract

In this paper a specification of inter-regional trade model, which does not need direct supply of inter-regional trade statistics, is derived and tested. A measure of this statistics is derived from the regional accounts based on the "flow-of-product approach" and the "Flow-of-cost approach." The causes of asymmetrical pattern of regional trade and the deterioration of terms of trade between developing and developed regions are also examined. Italian data over time period 1951 to 1968 is used to test our theory.

"Specification of the Weighting Matrix in Spatial Autocorrelation," <u>Proceedings of the American Statistical Association</u>, <u>Business and Economic Statistics Section</u>, August 1977, pp. 319-22.

#### Abstract

The main objective of this paper is to show that an arbitrary specification of the weighting matrix will produce inefficient estimators. I also derive a unique specification of this matrix in the case of measurable omitted variables and an unambiguous approach for estimation is provided for the case of non-measurable omitted variables.

"Alternative Estimators of the Determinants of Inter-regional Migration," <u>Proceedings of the American Statistical Association</u>, Business and Economic Statistics Section, August 1976, pp 217-20.

### Abstract

This paper demonstrates that the existing method of pooling regional data to estimate a single migration relationship is not valid. This common relationship many times is not even estimable at a regional level. Thus, making it impossible to check for the homogeneity of the regional coefficients. The random coefficient regression approach with maximum likelihood estimation procedure is used to solve this problem.

### **Book Reviews**

<u>Introduction to Econometrics</u> by James Stock and Mark Watson for Addison Wesley publications, June 2002.

<u>Econometric Analysis of Regional Systems</u>, by Norman J. Glickman for <u>Applied Mathematical Modelling</u>, June 1979.

<u>Introduction to Urban Dynamics</u>, by Louis Edward Alfeld and Alan K. Graham for <u>Annals of Regional</u> Science, November 1978.

### **Research Monographs**

"The New Face of Ecumenism: The Sikhs", Coauthored with Rev Alexander M. Jacobson, Campus Lutheran Ministry, April 1998.

"City of Cincinnati - Construction Employee Survey," Institute for Survey and Policy Research, October 1997, (Jointly with Andrew Smith).

"Project New Hope Neighborhood Survey - Interviewers Reference Manual," Social Science Research Facility, University of Wisconsin-Milwaukee, October 1995, pp. 1-51.

"Wisconsin Forecasts - A Quarterly Report of Wisconsin Economy," Social Science Research Facility, University of Wisconsin-Milwaukee, Fall 1995 -

"A Comparative Analysis of the Alternative Forecasting Models for the State of Wisconsin", Social Science Research Facility, University of Wisconsin-Milwaukee, August 1995 (with Peter Akubeze and Sue Ellen Michalek).

"Specification of the Regional Investment Equation: Some Non-nested Hypothesis Test Results," Social Science Research Facility, University of Wisconsin-Milwaukee, May 1991 (with P. Akubeze and G. Perkins).

"Migration Flows and Their Determinants: A Comparative Study of Internal Migration in Italy and the U.S.A.," The National Bureau of Economic Research, Working Paper Number 26, January 1974.

"Error Components Regression Models and Their Applications," The National Bureau of Economic Research, Working Paper Number 3, June 1973.

"A Study of Economic Resources and Economic Activities of Gikhuwal, Punjab," Continuous Village Surveys, Report Number 44, Agricultural Economics Research Center, Delhi School of Economics, University of Delhi, India, February 1967.

"The Agricultural Labour Inquiries (1050-51 and 1956-57): A Critical Study," Delhi School of Economics, University of Delhi, Delhi, India, February 1964.

# **ISPR Project Reports**

Institute's reports, research papers, questionnaires, training and computer literacy manuals require extensive teamwork. Given the small size of the staff, which consist of a part time faculty director, three specialists with different specialization and a program assistant/business manager and the complexity of the survey research from procuring research grants and contracts, designing questionnaires, training and supervising interviewers, maintaining local area network (LAN) for computer assisted telephone interviewing (CATI) and computer assisted personal interview (CAPI), verifying and analyzing the data to writing reports, virtually the entire staff is involved. To acknowledge contribution of the staff members, as a policy, all names are listed. The designated coordinator, if any, is identified.

# **Survey Research**

"Mutual Savings Bank Customer Survey - Summary Report", Institute for Survey and Policy Research, UWM, March 1999.

"Catholic Charities of the Archdiocese of Milwaukee, Inc. - Alzheimer's Survey", Institute for Survey and Policy Research, UWM, October 1998.

"City of Muskego, Wisconsin - Comprehensive Plan Survey", Institute for Survey and Policy Research, UWM, October 1998.

"University of Wisconsin-Milwaukee Cancelled Student Survey", Institute for Survey and Policy Research, UWM, June 1998.

- "The Greater Milwaukee Survey Project Report for City of Milwaukee", Institute for Survey and Policy Research, UWM, March 1998.
- "The Greater Milwaukee Survey Project Report for the United Way of Greater Milwaukee", Institute for Survey and Policy Research, UWM, September 1998.
- "The Greater Milwaukee Survey Project Report for Milwaukee County Transit System", Institute for Survey and Policy Research, UWM, September 1998.
- "Summary Report Labnet: Survey of Communications/Computer Infrastructure and Environmental Databases of NAML Coastal Labs", National Association of Marine Laboratories, Institute for Survey and Policy Research, UWM, August 1998.
- "Report on the Survey of Student Satisfaction University of Wisconsin-Washington County", Institute for Survey and Policy Research, UWM, July 1997.
- "The Greater Milwaukee Survey Project Report for City of Milwaukee, Department of Administration, Institute for Survey and Policy Research, University of Wisconsin-Milwaukee, September 1997.
- "The Greater Milwaukee Survey Project Report for Bank One", Institute for Survey and Policy Research, University of Wisconsin-Milwaukee, July 1997.
- "Survey of Non-returning Students University of Wisconsin-Milwaukee", Institute for Survey and Policy Research, UWM, February 1997.
- "Toward Fall Utilization of the Milwaukee Labor Force: A Planning Guide for Employers", Employment and Training Institute and Social Science Research Facility, University of Wisconsin-Milwaukee, July 1996.
- "Survey of Central City Milwaukee Job Seekers: Fall, 1995", Employment and Training Institute and Social Science Research Facility, University of Wisconsin-Milwaukee, January 1996.
- "Survey of Job Openings in the Milwaukee Metropolitan Area: Week of October 24, 1994, Employment and Training Institute and Social Science Research Facility, March 1995.
- "Linking Job Seekers to Available Job Openings: A Survey of Central City Milwaukee Workers", Employment and Training Institute and Social Science Research Facility, University of Wisconsin-Milwaukee, Fall 1994.
- "Survey of Job Openings in the Milwaukee Metropolitan Area: week of May 23, 1994", Employment and Training Institute and Social Science Research Facility, University of Wisconsin-Milwaukee, August 1994.
- "Survey of Job Openings in the Milwaukee Metropolitan Area: week of May 24, 1993", Employment and Training Institute and Social Science Research Facility, University of Wisconsin-Milwaukee, August 1993.
- "Wisconsin's Entrepreneurial Climate Study Phase I Report", Coordinated by the Center for the Study of Entrepreneurship, Marquette University June 24, 1992.
- "Voluntary Interdistrict Student Transfer Program: Benefit Survey A Compact for Educational Opportunity Study", Social Science Research Facility, November 1992.

# **Econometric Models**

- "Forecasting Wisconsin Employment Vector Error Correction Model Approach", Social Science Research Facility, January 1996.
- "Real Wages Cointegration Testing for Two Midwestern States Wisconsin and Minnesota", Social Science Research Facility, September 1995.
- "Wisconsin Forecasts A Quarterly Report of Wisconsin Economy", Social Science Research Facility, Summer 1995.
- "A Comparative Analysis of the Alternative Forecasting Models for the State of Wisconsin", Social Science Research Facility, UWM, August 1995.
- "A Regional Forecasting Model for the State of Wisconsin", Social Research Facility, UWM, April 1995.
- "Specification of the Regional Investment Equation: Some Non-nested Hypothesis Test Results", Social Science Research Facility and the Department of Economics, UWM, May 1991.

# **Interviewers Training Manuals**

- "Project New Hope Neighborhood Survey Interviewers Reference Manual", Social Science Research Facility, October 1995.
- "Interviewing Conventions for Non-returning Student Survey", Institute for Survey and Policy Research, January 1997.
- "ISPR Survey Lab Policies Interviewers Reference Manual for Wisconsin Poll", Institute for Survey and Policy Research, September 1998.
- "University of Wisconsin Study of Families and W-2 Interviewers Guide", Institute for Survey and Policy Research, UWM, March 1999.

# **Selected Questionnaires**

- "Panel Study of Families Seeking Assistance from W-2", Institute of Poverty Research, UW-Madison and Institute for Survey and Policy Research, UW-Milwaukee, March 1999.
- "Labnet Survey", Institute for Survey and Policy Research, UWM, Fall, 1997.
- "UWM Alumni Survey", Institute for Survey and Policy Research, UWM, Fall, 1997.
- "Wisconsin Poll", Social Science Research Facility, March 1997 and June 1998.
- "Greater Milwaukee Survey", Institute for Survey and Policy Research, Wave I, 1997 and Wave II, 1998. This is an omnibus survey of Milwaukee.
- "Monitoring Milwaukee Metropolitan Area Social Science Research Facility", 1996.

"Project New Hope Neighborhood Survey", Survey conducted in English and Spanish, October 1995.

"Social Science Research Facility Social and Political Survey", Wave I: 1986, Wave II: 1988, Wave III: 1990, Wave IV: 1992, Wave V: 1994.

"Wisconsin's Entrepreneurial Climate", Coordinated by the Center for Study of Entrepreneurship, Marquette University, June 1992.

# **Selected User Manuals**

Intermediate SAS Applications, January 1993

Introduction to SAS, October 1992

MicroTSP/TSP 4.1-An Introductory Guide, October 1992

Working with Limdep-An Introductory Guide, September 1992

Gauss-Getting Started: A Tutorial, April 1991

A Practical Guide to Statistical Analysis with Gauss, April 1991

TSP Version 4.1-An Introductory Guide, March 1991

Getting Started with SPSS under UNIX, December 1990

Working with Systat-An Introductory Guide, October 1990

Getting Started on the Convex C220, October 1990

Introduction to Lotus 1-2-3: A Programmed Approach, August 1990

User Manual for the Beta Gamma Sigma Data Systems, August 1990

Using Kermit to Transfer Files MS-DOS/1100 Exec, July 1990

Overview of the IBM-PC compatible computers, June 1990

Introduction to the Gauss Programming Language, November 1989

Introduction to the File Transfer Protocol (FTP), April 1989

Transferring Files using WTTAE, April 1989

vi Editor Command Reference, February 1989

Interactive Computing workshop, September 1988

Introduction to the UNIX operating system, April 1986

### PRESENTATION OF PAPERS AT PROFESSIONAL MEETINGS

January 2006 "Determinants and Consequences of Offshore Outsourcing – Comparative Study of China and India," a paper to be presented at the Annual Allied Social Science Association, Boston, MA.

January 2005 "Asset Returns and Debt in the Bull Market," a paper presented at the Annual American Economic Association Meetings, Philadelphia, PA (with Harjit K. Arora and Greg Lepak).

October 2004 "Growth Strategies for Small Cities: Impact of Incentives to Attract Investment," a paper presented at the 15<sup>th</sup> Conference on "Governing the Small City in Times of Fiscal Crisis." University of Wisconsin – Stevens Point (with Peter Akubeze and Greg Whitten).

January 2004 "The Determinants of Foreign Direct Investment in India," a paper presented at the Annual American Economic Association Meetings, San Diego, CA (with H.S. Sandhu). Also chaired a session on Technological Spillovers in Select Asian Nations.

July 2004 "Debt and Stock Market Return in the U.S.," a paper presented at the International Conference for the Academy of Business Administration, London, England (with Harjit

Arora and Greg Lepak).

October 2003	"Growth Potential of Wisconsin's New Economy," presented at the Biennial Conference of the Wisconsin (with Peter Akubeze and James Peoples).
April 2003	"Predictors of Educational Achievement: A Test of Selectivity Bias Hypothesis," presented at the 2003 Annual Conference of the Association of Private Enterprise Education, Las Vegas, Nevada (with Mark C. Schug).
April 2002	"Teachers Attitude Toward Economic Solution to the Environment Problems," presented at the 2002 Annual Conference of the Association of Private Enterprise Education (with William Holahan and Mark Schug).
Nov. 1998	"Sikh Studies and the Sikh Community: A Report from Trenches", a paper presented at the Conference of Sikh Studies - Towards the American Agenda, University of California - St. Barbara, November 6 and 7, 1998.
Sept. 1998	"Cultural Values and the New World Order", Midwest Conference on Asian Affairs, 47 <sup>th</sup> Annual Meeting, Milwaukee, WI, September 25-27, 1998 (Discussant).
July 1997	"Punjabiat: A Global Perspective", Keynote Address, the Fifth World Punjabi Conference, Milwaukee, WI, July 19, 1997.
July 1997	"Punjab Economy - A Global Perspective", the Fifth World Punjabi Conference, Milwaukee, WI, July 20, 1997, Chair of the session.
July 1997	"Punjabi Diaspora - Next Generation", the Fifth World Punjabi Conference, Milwaukee, WI, July 20, 1997, Moderator of the panel discussion.
May 1997	"The Threat of Telephone Answering Machines: A Recent Assessment," by Charlotte Steeh, Swarnjit S. Arora, and Andrew Smith at the American Association of Public Opinion Research Annual Meeting, Norfolk, Virginia, May 1997.
June 1994	"A Regional Forecasting Model for the State of Wisconsin: Comparison of Several Forecasting Methods," a paper presented at the Mid Continent Regional Science Association 25th Annual Meeting, Chicago, June 2-4, 1994 (Co-authored with Peter Akubeze and Seyhan Arkonac).
June 1991	"Specification of the Regional Investment Equation: Some Non-nested Hypothesis Test Results," at the Annual Meeting of the Mid Continent Regional Science Association, Chicago, May 30 - June 1, 1991 (Co-authored with Peter Akubeze and George Perkins).
May 1987	"Shifting Parameters Regression Models," a paper presented at the American Statistical Association Meeting, Milwaukee Chapter, May 1987.
August 1984	"Punjab Today: A Submerged Nation?", a paper presented at the American Sociological Association's Annual Meeting, San Antonio, August 1984.
February 1981	"Tax Incentives and Capital Spending in a Regional Economy," a paper presented at the Southern Regional Science Meeting, Washington, D.C., February 1981 (with George Perkins).

"Specification, Estimation and Policy Simulations with Regional Econometric Nov. 1980 Models," a paper presented at the 27th North American Meeting of the Regional Science Association, Milwaukee, WI, November 1980 (S.S. Arora and George Perkins). Nov. 1979 "A Random Coefficient Regression Approach to Inter-regional Migration," an invited paper presented at the 26th North American Meeting of the Regional Science Association, Los Angeles, CA, November 1979. June 1978 "A Questionable Validity of Pooling Time-Series and Cross-Section Data Under Shifting Parameter Regimes," Western Economic Association Annual Conference, June 1978. August 1977 "Specification of the Weighting Matrix in the Spatial Autocorrelation," The American Statistical Association's Annual Meeting, Chicago, IL, August 1977. "Critique of Spatial Autocorrelation," an invited paper presented at the 23rd North Nov. 1976 American Meetings of the Regional Science Association, Toronto, Ontario, November 1976 (S.S. Arora and Murray Brown). August 1976 "Alternative Estimators of the Determinants of Internal Migration," The American Statistical Association Annual Meetings, Boston, MA, August 1976. Dec. 1973 "A Monte Carlo Study of Alternative Variance Components Regression Estimators," American Statistical Association Annual Meetings, New York City, December 1973. April 1973 "An Econometric Model of Inter-regional Trade Under Insufficient Information: A case Study of Inter-regional Trade in Italy," Northeast Regional Science Association Meetings, Syracuse, New York, April 1973. "Migration Flows and Their Determinants: A Comparative Study of Internal Dec. 1972 Migration in Italy and the U.S.A.," Econometric Society Winter Meetings, Toronto, Ontario, December 1972. "A Micro-Analytic Approach to Multipolar Migration Under Uncertainty." August 1971 Econometric Society Summer Meetings, Boulder, CO, August 1971, (S.S. Arora and M. Brown) April 1966 "Food Distribution in India," a paper presented in a conference on <u>Indian</u> Agriculture: Problems and Prospects, University of Delhi, India, April 1966 (B.D. Talib, S.S. Arora, Suman Dubey and A. Majid). **April** 1966 "Contrasts in Indian Agriculture: Regional Variations in Agricultural Development," a paper presented in a conference on Indian Agriculture: Problems and Prospects, University of Delhi, India, April 1966, (S.S. Arora, Amartya K. Sen, et al.).

# **Research in Progress**

Impact of Public Policy Changes on Welfare Employment (Jointly with John Pawasarat)

Dynamic Model of Regional Investment

Regional Econometric Models

# **Invited Lectures and Seminars**

- "Current and Future Directions of Wisconsin's Economy with Special Reference to Southeastern Wisconsin," presented to the American Society Mechanical Engineers, October 12, 2005.
- "Health Care Systems: National and International Perspective," a lecture presented to faculty and students, School of Allied Health Sciences, UWM, April 14, 2005.
- "Current and Future Directions of the Wisconsin's Economy" guest speaker at the Sheboygan Business Club Luncheon meeting at the Lakeland College, April 1, 2004.
- "Impact of the Changes in the Immigration Policy on the Indian Community in the United States," a lecture presented to the Milwaukee Bar Association, February 7, 2003.
- "South Asian Economic and Political Conditions," a lecture presented to the faculty and students, Center for International Education, Excite Project, October 2, 2002.
- "Impact of German Reunification on the National Debt," a lecture delivered to faculty of Economics and Business, Justus Liebig University, Giessen, Germany, June 12, 2001.
- "A Comparative Study of the Higher Education System in the U.S. and India," an invited lecture delivered to Faculty Senate, Guru Nanak Dev University, Punjab, India, January 28, 2000.
- "Higher Education System in the U.S. Potential for the Exchange Programs," a lecture presented to the faculty of Punjab University, Punjab, India, January 15, 1999.
- "Survey of Job Opening in the Milwaukee Metropolitan Area", a paper presented at the Federal Reserve Bank of Chicago, Midwestern Economists Workshop, April 19, 1996.
- "A Comparative Analysis of Alternative Forecasting Models for the State of Wisconsin," a paper presented at the Federal Reserve Bank of Chicago, Midwestern Economists' Workshop, April 7, 1995.
- "Advancements in Econometrics," a paper presented at the Quantitative Methods Seminar Series, United Arab Emirates University, Al-Ain, January 26, 1993.
- "Pooling of Time Series and Cross-Sectional Data Some New Developments," An-Najah National University, Nablus, West Bank, November 18, 1991.
- "Regional Econometric Models for Small Areas," An-Najah National University, Nablus, West Bank, November 24, 1991.
- "A Disequilibrium Model of Regional Investment," a paper presented at the Faculty Seminar Series at Justus Liebig University, Giessen, Germany, June 15, 1990.
- "Specification and Estimation of Regional Investment Models," a paper presented at the Faculty Seminar Series, Cambridge University, February 1990.

Chair and discussant, Annual Meeting of the Association of Indian Economic Studies, Madison, Wisconsin, August 1985.

Invited discussant, "International Conference on Forecasting Regional Populational Changes," Conference organized by the American Statistical Association and Bureau of Census, Airlie, VA, May 26-30, 1982.

"National Stabilization Policies and their Impact upon Regional Investment Behavior," an invited paper delivered (with George Perkins) at the Wisconsin Business Economic Association Meeting, October 1982.

Invited discussants, "Invited Paper Session in Honor of William H. Miernyk," North American Meeting of the Regional Science Association, November 1982.

"A Random Coefficient Regression Approach to Inter-regional Migration," an invited paper presented at the 26th North American Meeting of the Regional Science Association, November 1979.

"Error Component Regression Models and Their Applications," a paper presented at the Agricultural Economic Research Center, University of Delhi, India, August 10, 1979.

"Invited Chairperson of a session at the Western Economic Association Annual Conference, June 1978.

"The Determinants of Interregional Migration Under Uncertainty," an invited lecture presented at the Regional Science Seminar University of Illinois at Urbana-Champaign, April 18, 1977.

"A Critique of Spatial Autocorrelation," an invited paper presented jointly with Murray Brown at the Regional Science Association Meetings, Toronto, Ontario, November 13, 1976.

"A Random, Coefficient Regression Models and Their Application," an invited lecture delivered at the Agricultural Economic Research Center, Delhi School of Economics, University of Delhi, India, July 12, 1974.

"An Introduction to the TROLL Systems and Its Applications," a seminar and demonstration conducted for the Social Science Research Facility, University of Wisconsin-Milwaukee, November 16, 1973.

"Distributed Lags and Autoregressive Models," a seminar conducted for the Social Science Research Facility, University of Wisconsin-Milwaukee, November 30, 1972.

# **Editorial Refereeing**

Blackwell Publishers, Malden, MA, Reviewed Econometrics by Badi H. Baltage, August 1998.

South Western College Publishing Company, Reviewed an Econometric Manuscript for publication, April 1996.

Addision-Wesley Publishing Company, Reading, MA, refereed a manuscript for a microeconomics textbook.

Refereed paper for Journals of Annals of Regional Science, Canadian Journal of Economics, Growth and Change, International Regional Science Review, Econometrica, Journal of Mathematical Modeling, Economic Development Quarterly.

# **Research Proposal Refereeing**

National Science Foundation, Washington, D.C. National Bureau of Economic Research, Cambridge, MA

# **Membership in Professional Societies**

American Economic Association Econometric Society Regional Science Association American Statistical Society (Milwaukee Chapter)

# TEACHING EXPERIENCE AND GRADUATE RESEARCH DIRECTED

I have taught the following courses during my tenure at UWM:

<u>Undergraduate</u>: principal of microeconomics, principal of macroeconomics, economic statistics, international relations, intermediate micro, intermediate macro, and study abroad-India.

<u>Undergraduate/graduate</u>: regional economics, urban economics, and special topics-economic forecasting, special topics-economics of energy, international trade, international finance, and statistics for economists II (econometrics).

<u>Graduate</u>: applied econometrics, econometric theory-I, econometric theory-II, managerial economics, and business-statistical analysis.

I also introduced the following nine new courses: International Economic Relations (296-396), International Finance (296-576), Economic Forecasting Methods (296-411), Introduction to Econometric Methods (296-635), Applied Econometrics (Econ 710), Microcomputing Basics (534-100), Microcomputing in the Social Sciences (534-103), Internet Applications for the Social Sciences (534-104), Study Abroad India (534-497).

In addition, I have directed eight doctoral dissertations and served on additional sixty-one committees. I have also chaired twenty-two master's papers and thesis, and have served on an additional thirty-four.

During the thirty-four years at UWM, I have taught graduate econometric theory and applied econometrics for about thirty-two years. I have constantly revised my reading list. In fact, major developments in time series econometrics took place during the last twelve years. During my stay at the University of Cambridge in 1989-90, I took Ph.D. level courses from Professor Peterson of Cambridge University, and Professor Hendry of the London School of Economics. After returning, I introduced Applied Econometrics (Econ 710). It has been a very successful course and has given rise to the number of Ph.D. dissertations. It is not easy to teach statistics or courses requiring statistics. My approach over time has shifted to applications. My courses require extensive use of technology. Students are required to learn statistical software; STATA, EVIEWS, Limdep, SAS and collect original data for their research paper.

My courses in econometrics are regarded as some of the most difficult and demanding courses on the campus. However, I am consistently rated extremely high in the evaluations. See the teaching evaluations tables below. It is an accomplishment in itself in a department, which has some of the best teachers. On the recommendation of my undergraduate and graduate students, I was nominated for the Distinguished Teaching Award twice, once in 1975 and a second time in 1997. I made the finalist list both times. Award winners generally come from the mass lectures.

# **Ph.D Committes**

### **Doctoral Dissertations Directed**

Beth Hissinger, Spatial Dependence and Structural Change, June 2001

Hoyoung Hwang, Emperical Tests on the Intermediate Targets of Monetary Policy: The Case of Korea, June 1998.

Abereniye Atemie-Obuoforibo, <u>Public Policies: Does Welfare Only Respond with a Random Walk?</u>, December 1994.

James Joseph Brzycki, <u>Cointegration and Error Correction Modeling: A Test of the Natural Interest Rate Hypothesis</u>, December 1992.

Sil Han, Specification and Estimation of an Alternative Neoclassical Investment Model, July 1984.

Judex L. Oberholzer, <u>Industrial Complex Economics and Intrametropolitan Firm Location: A Case Study for the Pretoria/Witwatersrand/Vereeniging Metropolitan Region in South Africa, May 1984.</u>

Luis Arimany de Pablos, <u>The Demand for Fuel Oil by the Electric Power Companies in Spain - A Critical Review of the National Energy Plan</u>, October 1981.

William Wavel Kiffmeyer, <u>Price Determination in U.S. Manufacturing Industries</u>, August 1978.

#### Member:

Scott Hagert, Maharouf Oyolola, Sahar Bahmani, Jahanjeeb Cheema, Yan Liu, Hoyoung Hwang, Aaron Picard, Orhan Kara, Abm E. Nasar, Sungwan Shin, Tachawan Kanitpong, Patrick L. Halloran, Hosne Mridha, Artatrana Ratha, Brian Jacobson, Hafeez Rahman, Nisit Panthamut, Gour Goswami, Zohre Ardalani, Hanafiah Harry, Marina Kovyryalova, Yongquing Wang, Yan Lin (under progress), Altin Tanku (under Progress), Muge Karucal, James L. Altmann, Jacek J. Cianciara, Patrick Cotter, Robert Drury, Chang Min Kong, Heydar Pourian, Ropchai Premsrirut, Slangor, Wayne Wendling, Rosimary Rossiter, Karl G. Jechotek, Keith Sherony, James Henderson, Shee Q. Wong, Thomas Michalski, Akbar Komijani, Phadey Rojanasakul, Harjit Arora, Advait Mohanty, Jeff Turnbull, Anthony Quon, Francis Cannon, Madhu Mohanty, Sarat Chandran, Keun Jon Chung, Nabil Ltaifa, Majin Shore, Seyhan Arkonac, Jonaradhanan Alse, Ilkar Domac, Ampan Techaratanachai, Cheolhyung Park, Richard Agesa, Mary Knasinski, Abdulla Mohd Alreyes (from English Department), Susan M. Donohue, Jeffrey Valentin-Mari

# M.A. Committes

# Chairman:

Boldmaa Batbold, Falk Bekner, Denise Berg, Nicolas Degen, Steffan Hembrock, Shilpa Jindal, Regina Kuehne, Enrico Langer, Maik Paetzold, Lena Panzer, Benedict Ralf, Alexander Schulz, Stefan Sprenger, Robert Stiller, Doreen Triebe, Robert Wilkerson, Robert Braun, Tim Burda, Sabastian Kubsch, Phillip Kurmann, Minh-an Tran, Sven Wyrwa, Jan Zimmerman, Ronny Fraessdorf, Frauke Ruther, Laurie Turtnwald, Anne Maria Robertson, Gregory Whitten, Tobias Gombel, Martin Wurm, Patrick Cotter, Ma. Guadalupe Martinez, Rahnhild S. Mowill, Nicholas Papasyriopoulos, John Yingling, Jonardhan Alse,

Adina Tzur, Brett Remington, Russell Kashian, Maria Riveria, Shenaj Mahmoud, Christoph Husing, Souphala A. Chomsisengphet, Dennis Yaccarino, Robert Hipki, Weiyan Liu(thesis), Joan Paradiso(thesis)

#### Member:

Dan Xi, Sucha Wattanchai, Monique Newiak, Andrew Graf, Sourav Batabyal, Alexander Edner, David Fudian, Mareike Falk, Oliver Haterigs, Rouven Mink, Sebastian Ortmann, Mehdi Shoja, Bianca Waldherr, Julie Reilich, Mark Hamilton, Jia Xu, Angelica Redriquez-Pediraza, Joseph Mack, Emma Anacta, Mathias Brehe, Antje Fischer, Nico Friedrich, Michael Pilawa, Mark Schneider, Mathew Buck, Eric Zeiss, Bogdan Stanila, Martin Kopf, Birgit Teshner, Kai Bruggenkoch, Johannes Koch, Abdulkerim Kesse, Elena Ermolenko, Sahar Bahmani, Biagalmaa Nyamma, Chin-I Liao, Dennin Gutgesell, Pierre Wohlleben, Sukalya Boonyaritthipong, Richard Hillstrom, Catherine Kent, Michael E. McClelland, Marco A. Perez-Valtier, Ronald A. Schneck, Cornelius Udoh, Lenore Burcket, Mauro Leos, Meeta Das, Advait Moohanty, Larry Nicholas, Felicidad Chavez, Jay Blaeske, Joseph Michaili, Erich Henrich Ruppert, Pibulsri Sereeviriuakul, Michael Casson, Nance Kinney, Ilir Mitezi, Lori A. Geddes, Archana Vasudeva, Shoua Yang, John Finerty

# **Teaching**

# Courses taught at the UWM

Unde	rgraduate
CHUC	Siduduce

Econ 103	Principles of Microeconomic
Econ 104	Principles of Macroeconomic
Econ 210	Economic Statistics
Econ 301	Intermediate Microeconomic
Econ 302	Intermediate Macroeconomic
Econ 396	<b>International Economic Relations</b>
Social Sciences 497	Study Abroad-India

# Undergraduate/Graduate Econ 412

Econ 422	Regional Economics
Econ 458	Special topics - Economic Forecasting
Econ 458	Special topics - Energy Economic
Econ 464	International Trade
Econ 531	Statistics for Economists-II (Econometrics)
Econ 576	International Finance

**Urban Economics** 

### Graduate

Econ 710	Applied Econometrics
Econ 735	Econometric Theory-1
Econ 835	Econometric Theory-2
Econ 915	Seminar in Econometrics
Econ 991	Workshop in Economics-Regional Model Building
Bus 709	Statistical Analysis
Bus 750	Managerial Economics

# New Courses Introduced at the UWM

# a. Department of Economics

Economics 396	International Economic Relations
Economics 576	International Finance
Economics 411	<b>Economic Forecasting Methods</b>
Economics 635	Introduction to Econometric Methods
Economics 710	Applied Econometrics

### b. Social Science Curriculum of the College of Letters and Science

Social Science 100	Microcomputing Basics
Social Science 103	Microcomputing in the Social Sciences
Social Science 104	Internet Applications for the Social Sciences
Social Science 497	Study Abroad-India

# **Teaching Evaluations**

The Department of Economics, following the university requirements, conducts teaching evaluations every semester. In addition to asking the questions on proportion of classes attended, class participation and usefulness of the assigned readings and materials, the department evaluates faculty based upon the following six questions.

- 6. How does this course compare with your other university courses in terms of difficulty?
- 7. How hard is it to get any given grade in this course compared to other courses at the University of Wisconsin-Milwaukee?
- 8. Would you recommend this course to a friend?
- 9. Would you recommend this instructor to a friend?
- 10. All in all, in comparison with other instructors you have seen at the University of Wisconsin-Milwaukee, how would you rate the instructor's performance in this course?

My evaluations for the last fifteen years are given below. Since both Econometrics 513 and Econometrics710 are required courses, my students find these courses quite difficult and hard to get any given grade, yet they all rate excellent as far as recommendation of this instructor to a friend and instructor's performance.

### **SERVICE**

I believe in strong faculty governance, and have served and chaired a number of crucial committees at the university, college and the department level. At the university level I have chaired the following committees: Academic Program and Curriculum Committee, Computer Policy Committee, Executive Committee of the Division of Social Sciences, Audit and Review of the International Studies Program, Program Array Review, Graduate Faculty Council, Enhance the Campus Environment Satellite Group of the Learning Through Technology.

In addition, I have served on the Faculty Academic Planning Budget Committee; Chancellor's Budget Advisory Committee, Research Policy Committee, Graduate School Research Committee, Nomination Committee, and the Institutional Review Board for the Protection of Human Subjects. I have also served on a number of Task Forces and Blue Ribbon Committees appointed by the Chancellor and Vice Chancellor. I am chairperson of Bolton Hall and have served as a Senator, UWM Senate for seven years.

At the college level, I chair the Recruitment Committee for South Asian Faculty and the Selection Committee for UWM-Indian Student Financial Assistance Program. I also served on the L&S Technology Committee, the Admission Committee, and the Dean's Advisory Committee, the nomination committee, the committee on committee and the course and curriculum committee.

At the department level, I have served as Chair of the Financial Aids Committee, the Graduate Curriculum Committee, the Seminar Committee, Computer Fund Allocation Committee, and the Graduate Student Advising. I also serve on the Graduate Admission Committee and as an undergraduate student advisor.

At the Community level, I serve as a resource person and spokesman for Punjabi and Sikh community. I have been extensively interviewed on television and radio, and about forty interviews appeared in the local, national and international newspapers. I serve as a member of the Steering Committee of the Milwaukee Association of Inter-faith Relations, and Public Relation Director and Executive Secretary of the Sikh Religious Society of Wisconsin. I have also served as a Member of St. Roberts School Committee.

As a professional service, I organized the 5<sup>th</sup> World Punjabi Conference, served as a consultant to the World Bank, Federal Reserve Bank of Chicago and the City of Milwaukee, Division of Budget and Management.

On an international level, I assisted An-Najah National University to establish a "Sample Survey Research Center". I also assisted the United Arab Emirates University to setup an "Emirates Center for Social Science Research". I serve as an Information Technology Director of the International Panel on Punjab, appointed by the government of Punjab, India.

I am an extremely active member of the committees I serve. For example, as chair of the Computer Policy Committee and Learning Through Technology Committee, I was a crucial voice in requesting the vice-chancellor to provide additional funding for computer hardware and software. As a testimony to the intensity of my committee work, I quote from Assistant vice-chancellor Sona Andrews's letter dated August 26, 1998:

I wanted to formally thank you for all the work you did this past year as chair of the Academic Program & Curriculum Committee. During your tenure the APCC made significant changes to the GER, participated in the Program Array Review and conducted an unprecedented number of undergraduate program reviews (including all past due reviews). I attribute the committee's accomplishments directly to your leadership and dedication as chair. It was indeed a pleasure working with you. The committee will be hard-pressed to find someone to replace you. Again, thank you for all your hard work.

I made a similar contributions to the GFC and the Research Policy Committee.

# **University**

# **University of Wisconsin-Milwaukee**

Chair, Academic Planning and Budget Committee, 2000-2002 Vice-Chair, 1999-2000, Member 1997-2002, 2005-08 Chair, Academic Program and Curriculum Committee, 1997-98, Member, 1995-98. Chair, Audit and Review of the International Studies Program, 1997-98. Chair, Executive Committee of the Division of Social Sciences, 1988-89,

Member, 1986-89, alternate member, 1989-94.

Chair, Computer Policy Committee, 1992-94, Vice-Chair 1998-99,

Member, 1983-87, 1991-94, 1998-2001.

Chair, Learning Through Technology Roundtable Group 2001-02, Member 1996-97 and 1999-01.

Chair, Bolton Hall, 1995-06

Vice-Chair, Graduate Faculty Council, 1987-88, Member, 1987-88 and 1996-97.

Chair, Enhance the Campus Environment Satellite Group of the Learning

Through Technology Roundtable, 1996-97, Member, LTT Group, 1996-

Senator, UWM Faculty Senate, 1991-97, 2002-11

Member, Subcommittee on Affirmative Action, 1992-93.

Member, Subcommittee on the Evaluation of Administrators, 1995-96.

Member, Faculty Senate Rules Committee, 2003-04.

Member, Faculty Appeals and Grievance Committee, 2003-06

Member, Milwaukee Idea Environmental Research Group, 2002-

Member, Institute on Multicultural Relations Advisory Committee, 2002-

Member, Steering Committee, PeopleSoft Student Information System, 1999-2000.

Member, North Central Association Accreditation Focused Evaluation Committee, 1997-98.

Member, Chancellor's Budget Advisory Committee, 1997-98, 1999

Member, Physical Environment Committee, 1997-

Member, Nomination Committee, 1997-99.

Member, Academic Administrative Policy Committee, 1997-98.

Member, Vice-Chancellor's Adult Access Working Group Taskforce, 1996-98.

Member, Faculty Advisory Committee, Urban Research Center, 1991-92.

Member, Research Policy Committee, 1987-89.

Member, Graduate School Research Committee, 1977-78, 1983-84, 1985-86.

Member, Vice-Chancellor's Task Force on Academic Computing, 1987-88.

Member, Chancellor's Task Force to prepare an Impact Statement on UWM's

influence on the Milwaukee Metropolitan Community, 1986-88.

Member, Non-resident Tuition Appeals Committee, 1987-88.

Member, Institutional Review Board for the Protection of Human Subjects Committee, 1986-88.

Faculty Advisor, Students of India Association, 1999-

# **College of Letters and Science**

Director, Institute for Survey and Policy Research, 1982-

(Previously known as Social Science Research Facility)

Chair, Recruitment Committee for South Asian Studies Faculty Position, 1999-2000.

Chair, Selection Committee for UWM-India Student Financial Assistance Program, 1998-.

Member, Academic Planning Committee, 2000-04

Member, Graduate Program Committee, 2001-04

Member, Melvin Lurie Memorial Prize Committee, 1997-

Member, Labor-Management Committee of the Masters in Human Resources and Labor Relation Program, 1997-2000

Member, L&S Nominating Committee, 1984-85, 1993-96.

Member, L&S Technology Committee, 1997-

Member, Committee on Committees, 1996-97.

Member, Admission Policy Committee, 1993-97.

Member, Ad Hoc L&S Sabbatical Proposal Review Committee, 1993-94.

Co-chair, Ad Hoc Committee on Academic Computing Needs in Social Sciences, 1982-83.

Member, Dean's Faculty Advisory Committee, 1977-82.

Member, Social Science Research Facility Steering Committee, 1978-80.

Member, Social Science Research Facility Advisory Committee, 1974-82.

Member, Committee of Advisors for the International Relations Majors, 1976-87.

Member, Ad Hoc Committee on Computer Assisted Instructions, 1975-76.

Affiliated Faculty Member, Center for Great Lakes Studies, 1974-85.

Affiliated Faculty Member, Women's Studies, 1975-85.

# **Department of Economics**

Chair, Student Appeals and Grievance Committee, 2004-

Chair, Liaison with University Committees, 2004-

Chair, Financial Aids Committee, 1993-1997, Member, 1975-80, 1983-89, 1997-

Chair, Computer Fund Allocation Committee, 1993-96.

Acting Chair, Department of Economics, Summer, 1996, 2005.

Chair and member of Graduate Curriculum Committee 1972-74, 1975-78, 1982-88.

Chairman, Seminar Committee, 1981-83.

Chairman and Co-Chairman of Graduate Student Advising 1976-79, 1981-82.

Member, Graduate Admissions Committee, 1974-75, 1982-88, 1991-

Member, Graduate Recruitment Committee, 1972-73, 1982-83.

Member, Undergraduate Curriculum Committee, 1972-73.

Undergraduate Student Advisor, 1996-

Ph.D. Qualifying Examination Committee in Econometrics: Chair and Member Since 1974.

Ph.D. Qualifying Committee in Regional and Urban Economics, Member since 1978.

# **Community**

# A. Invited Lectures and Group Discussions

"Tsumani Children – Relief and Rehabilitation: Teach-in", March 10, 2005. The event was cosponsored by the UWM Tsumani Relief Coalition, Center for Volunteerism and Student Leadership, Asian Faculty and Staff Association, Department of Multicultural Affairs, and the Union Sociocultural Programming, March 10, 2005.

"Afghanistan, Kashmir and the North West Frontier of Pakistan – Hot Spots of South Asia," November 17, 2004. The event was co-sponsored by the Asian Faculty and Staff Association, the Department of Multicultural Affairs and Institute on Multicultural Relations, November 17, 2004.

"In search of the Existence of God – Sikh Perspective," A Lecture at the World Religion Conference, sponsored by Ahmadiyya Muslim Student Association and the UWM Student Association, February 15, 2004.

"Turbans and Experience of Difference," a paper presented at the Summer Institute on International Education – Global Education in Changed World, June 5, 2002.

"Mera Sona Punjab – Cradle of Civilization," a lecture presented in the Academic Adventure Series and organized by AGS Collection, UWM m March 12, 2002.

"Racial Profiling – Senate Bill 238," appeared as an expert witness on Senate hearing, October 14, 2001.

"Sikh Studies and the Sikh Community: A Report from Trenches," a paper presented at the Conference on Sikh Studies – Towards the American Agenda, University of California – St Barbara, November 7, 1998.

"Punjabi Diaspora – Next Generation," the Fifth World Punjabi Conference, Milwaukee, WI, July 20, 1997, Moderator of the panel discussion.

"History of Sikhs and their Religion," a lecture presented at the Adult Education Group, North Trinity Lutheran Church, February 1995.

Expert Witness on Location of Sikh Temple in Mequon, Wisconsin, December 1992.

Evaluation of the Cost-Benefit Study of Agricultural Marketing Cooperative, Tulkarem, West Bank, August 1992.

Loan Policies of the National Fund for Investment and Development, Jerusalem, Israel, August 1992.

"The Current Situation in India," Adult Education Program, Wauwatosa Presbyterian Church, October 11, 1986.

"The Sikhs in India," Commentary prepared for Behind the World Headlines, Institute of World Affairs, UWM, 1985.

"Punjab Today - A Submerged Nation," in a Colloquia and Symposia on Quest for Nationhood, and Submerged Nations, University of Wisconsin-Milwaukee, December 15, 1983.

"National Stabilization Policies and Their Impact Upon Regional Investment Behavior," a lecture given at the monthly meeting of Wisconsin Business Economic Association, April 1982 (jointly with G. Perkins).

"How Well Do We See the World," a lecture delivered at the Annual Meeting of the Society of Professional Journalists - Sigma Delta Chi at Green Bay, WI, April 11, 1980.

"Can Rich 'North' and Poor 'South' Cooperate?" An invited lecture delivered on March 2, 1978 for the Institute of World Affairs, UWM. His lecture was part of the "Great Decision - 1978" lecture series.

"Recent Economic and Political Developments in India," an informal talk given at the Milwaukee Catholic Home, Prospect Avenue, Milwaukee, WI, June 14, 1976.

"An Evaluation of the U.S. Foreign Aid Policies Towards Developing Countries," an invited lecture delivered to Sangam Club, Massachusetts Institute of Technology, Cambridge, MA, April 1973.

# B. Television, Radio and Newspaper Coverage

# **Television Appearance**

"Presidential Election and its Implications for the Wisconsin Economy Especially Relating to her

Manufacturing Sector," interviewed by Ms. Pam Mangat for the BBC News Service, October 8, 2004.

"Impact of the Changes in the U.S. Immigration Policies on the Student Visa," interviewed by Patricia Gomez for National Public Television, channel 10/36, February 7, 2003.

"Racial Profiling and its impact on Sikh businesses and family life," interviewed by channel 4 and 6, September 25, 2001.

"Investments by Non-Resident Indians in India," interviewed by India TV, Channel 4, Punjab, January 29, 2000.

"Impact of Y2K on the Midwest Economy," interviewed by WTMJ, Channel 4, January 6, 2000.

Guest Panelist on the program "Major Religions of the World-Sikhism": WTMJ-TV Channel 4, April 25, 1998.

Interviewed on "5<sup>th</sup> World Punjab Conference" by Door Darshan, a television program of the Indian Broadcasting System, July 20, 1997.

Interviewed by Mr. Allen Bradley of CBS Television on, "Election Trends in Wisconsin," April 1, 1980.

Guest panelist on, "India Report," a Public Conference Program of WITI-TV Channel 6, January 11, 1980.

Guest panelist on, "Can Rich 'North' and 'Poor 'South' Cooperate?" Public Conference Program of WITI-TV Channel 6, March 5, 1978.

Guest panelist on the program, "World Affairs Forum," of TV-12, August 15, 1976, 10:30-11:00 a.m. Interviewed Mr. Joel Biller, U.S. Deputy Undersecretary of State on topics relating to recent developments in global communication and transportation and their impact on international trade, diplomacy and society.

# **Radio Interviews**

"Presidential Election and its Implication for the Wisconsin Economy Especially Relating to her Manufacturing Sector," interviewed by Ms. Pam Mangut for the BBC News Services (Both Radio and TV), October 8, 2004.

"Mera Sona Punjab – Cradle of Civilization," - a lecture presented in the UWM Academic Adventure Series and Organized by the AGS Collection, UWM, March 15, 2002. A summary of the lecture reported on the WUWM.

"Higher Education System in India," organized a workshop for visiting Vice Chancellor H.S. Soch of the Guru Nanaka Dev University on May 8, 2000. This was aired by WUWM on May 10, 2000.

Featured speaker on WUWM Roundtable. Interviewed by Dean Marshall Goodman on the Sate of Indian Economy, May 5, 1998.

"Wealth of the World: To Divide or Multiply," lecture and discussion aired on WUWM-FM, October 20, 1977, 9:00-11:00 p.m.

Interviewed by Ms. Harjeet K. Randhawa on "Punjabi and Punjabiat - 5<sup>th</sup> World Conference," Special Broadcasting Service, New South Wales, Australia, July 18, 1997.

# Newspaper Interviews

"Asian Reel in Larger Share of Loans than Other Minorities," interviewed by Tonnette Johnson-Ellies, Milwaukee/Journal, June 23, 2004.

"Gathering Carries Forward: Despite misunderstandings, the Sikh Community Finds Welcome in U.S.," Milwaukee Journal, December 31, 2001.

"Keeping the Faith: Sikh Temple in South Shore hopes to Educate public, eliminate aggression," the Bay Viewer, October 18, 2001.

"Government of India Honors Arora," UWM Report, March 28, 2000.

"Getting Ready for Next Millennium-Study Abroad to India," Myriad, Office of Multicultural Affairs, UWM, October, 1999.

"Passage to India - UWM Students Study Abroad," Momentum, L&S Newsletter for freshman and sophmore, August, 1999.

"Governor Tommy Thompson on Issues Facing Sikh Diasopora," Chardikala, Monthly magazine, Chandigarh, New Delhi, June, 1999.

"Governor Thompson Supports Sikhs on Kirpan Issue," Indian Reporter, May 28, 1999.

"Student Association Honor Arora," UWM Report, May 25, 1999.

"Retail Gasoline's Changing Face," The Philadelphia Inquirer, January 10, 1999.

"UWM Envisions Education with a More International Focus," Milwaukee Journal/Sentinel, January 10, 1999.

"Punjabi Students Will go to UW-M for Higher Education-Tohra," Hamdard, Toronto, November 18, 1998.

"New Exchange Program Links UWM, Punjabi University," UWM Report, October 8, 1998.

"Indian Merchant Lives American Dream in 12 hour Shifts," Milwaukee Journal/Sentinel, June 23, 1998.

"University Delegate Received by Tohra," Hamdard, Toronto, April 9, 1998.

"UW-M Incorporates Exchange Program with Universities in Punjab-Five Member Delegate Received by Governor, Chief Minister and Finance Minister," Pardesi, New Delhi and Toronto, April, 1998.

"Joyous Move," Milwaukee Journal/Sentinel, November 10, 1997.

- "Call to Worship-Sikhism," Milwaukee Journal/Sentinel, November 9, 1997.
- "Special Issue on Kartar Singh Dhaliwal Professorship of Punjab/Indian Studies," Indo Canadian Times, British Columbia, October 2, 1997.
- "World Punjabi Conference Dedicated to Subedar Kartar Singh Dhaliwal," Pardesi, New Delhi, September, 1997.
- "Conference, Reception Kickoff: Expanded Punjab Indian Studies," UWM Report, August 28, 1997.
- "5th World Punjabi Conference at the University of Wisconsin-Milwaukee a Great Success," Hamdard, Weekly, Toronto, August 1, 1997.
- "A Successful Punjabi Conference," Indo Canadian Times, British Columbia, July 24, 1997.
- "World Punjabi Conference Punjabiat World View July 19, 20 and 21 at the UW-Milwaukee," Indo Canadian Times, British Columbia, July 22, 1997.
- "Endowment for Punjab Studies," India Abroad, Chicago, New York & Houston, July 19, 1997.
- "Businessman to Fund India Program at UWM," Milwaukee Journal/Sentinel, July 18, 1997.
- "Punjab: A State of Many Contrasts," UWM Letters and Science Alumani, Fall 1997.
- "A Special Gift The kartar Singh Dhaliwal Professorship," UWM Letters and Science Alumani, Fall 1997.
- "Kartar Singh Dhaliwal A Father's Life Honored in a Professorship Gift," Investing in Higher Education for a Stronger Community, UWM Foundation, 1997.
- "A Chair to Study Sikhism and Punjabi Culture," Hamdard Weekly, International Punjabi Newspaper, Toronto, September 13, 1996.
- "A Sikh Chair at the University of Milwaukee," Ajit Weekly, Toronto, September 9, 1996.
- "A Sikh Chair Established at the University of Wisconsin-Milwaukee," Panj Pani, a weekly magazine, Toronto, September 2, 1996.
- "Group Promotes Interfaith Learning," Milwaukee Journal/Sentinel, March 23, 1996.
- "Enough Say Inner City Unemployed, Most Will Work for \$7.00 per hour," February, 1995.
- "SSRF: A Reservoir of Census Data," UWM Report, April 15, 1992.
- "Sikhs in Milwaukee find Violence a New Oppression," Milwaukee Journal/Sentinel, June 25, 1989.
- "UWM Seeks Solution to Resource Shortfalls: Report on Academic Computing," UWM Report, April 1988.
- "New Computer Lab Serves Social Sciences," UWM Report, November 7, 1987.
- "SSRF Taps Sea of Knowledge," UWM Report, September 5, 1984.
- "Facility Provides Research Support," UWM Report, October 26, 1982.

### **COMMITTEES**

Member, Steering Committee, Milwaukee Association of Interfaith Relations, 1996-

Public Relation Secretary, Sikh Religious Society of Wisconsin, 1995-

Secretary, Executive Committee, Sikh Religious Society of Wisconsin, 1994, 1992, 1989.

Member, St. Robert's School Committee, 1985-88.

Member, Gamaliel Chair Steering Committee, A Program for Peace and Justice Sponsored by Lutheran Campus Ministry, 1987-88.

### PROFESSIONAL SERVICES

Organized the 5<sup>th</sup> World Punjabi Conference at the UW-Milwaukee, July 18-21, 1997. This conference was attended by about 500 international scholars.

Member, External Advisory Group, Budget and Management Division, City of Milwaukee, Milwaukee, WI, 1995-98.

Member, Midwestern Economic Workshop Series, Federal Reserve Bank of Chicago. This roundtable conference meets every three months and discuss economy of Iowa, Illinois, Michigan, Indiana and Wisconsin, 1995-

Director, Information Systems and Academic Exchanges, International Panel of Experts to study the Economy of Punjab, India and make recommendations for the future growth. I will examine Productivity of the Manufacturing Sector, 1994-

One on One Tutor for The Milwaukee Public School District, 1992-95.

External Examiner for the Ph.D. dissertations, University of Madras and University of Punjab.

Assisted in establishment of the "Sample Survey Research Center," at the An-Najah Nationalal University, 1991.

Assisted in setting up a "Emerates Center for Social Science Research," in Abu Dhabi, United Arab Emerates, 1993.

Consultant to the World Bank on their project, "Estimation of World Demand for tea," 1992-95.

Member, Board of Directors, American Statistical Association, Milwaukee Chapter, 1992-94.

Chaired a session on "Health Care/Elderly Migration," at the 22nd Annual Meeting of Mid Continental Regional Science Association, Chicago, IL, May 31, 1991.