

CV JERALD HAGE

Director Centro Innovación, Departamento Sociología, U. Maryland-College Park, USA.
Profesor, Investigador. Logros principales:

1. Visiting Chair of Innovation, Australian School of Business, University of New South Wales, Sydney, Australia, 2012 to advise on the establishing of a new research program in innovation and economic development.;
2. President of the Society of the Advancement of Socio-Economics, 1997-98;
3. British Petroleum Centennial Research Professor at the London School of Economics, 1994;
4. Prize as the best comparative public policy book from the International Political Science Association for State Intervention in Medical Care (with Hollingsworth and Hanneman), 1991;
5. Elected member of the Sociological Research Association, an honorary society of the American Sociological Association, 1983 with limited membership.

Publicaciones reciente de sus libros a exponer:

Restoring the Innovative Edge (Stanford: Stanford University Press, 2011)

Innovation, Science and Institutional Change (Oxford: Oxford University Press, 2006)

CURRICULUM VITAE

EDUCATION

1955 Bachelor of Business Administration University of Wisconsin-Madison;
1963 Doctor of Philosophy (sociology) Columbia University;

ACADEMIC WORK EXPERIENCE

1964-1978 Assistant to Full Professor, University of Wisconsin-Madison;
1978-1984 Chair, Department of Sociology, University of Maryland, College Park;
While I was chair I developed a strategic plan for the department of sociology.
1982- present Director, Center for Innovation, University of Maryland, College Park;
This Center is an inter-disciplinary one and has an active program in basic and applied research (see list of contract grants below). The Center has been concerned with developing a number of instruments in the evaluation of innovation processes and at multiple levels.

COURSES TAUGHT

My three most important educational achievements at both universities were (1) the creation of a post-doctoral program in evaluation research, (2) teaching students how to combine theory and research including the development of new ideas that can be tested, and (3) new substantive courses in organizations and social change.

At the University of Wisconsin-Madison, multiple years

Created and taught in a post-doctoral training program for evaluation of social services;
Social theory at the graduate level;

Created and taught in a new course to help students do their masters' thesis;

Created a new course in theory construction at the graduate level;

Created a new interdisciplinary seminar in the sociology of history joint with the history department;

Organizational sociology at the undergraduate level;
Social change at the undergraduate level;
At the University of Maryland, College Park, multiple years
Created and taught in a post-doctor training program for evaluation of social services;
Created a PhD practicum for developing the thesis at the graduate level;
Organizational sociology at the graduate and undergraduate levels;
Created a comparative welfare states course at the graduate level and as an honors course;
Created a technology and society for the undergraduate honors program;

ACADEMIC COMMITTEES INVOLVING EDUCATION: University of Maryland

1996-1999 Advisory board for undergraduate education;
1995-1996 Member of steering committee for Mid-Atlantic Review, chair, graduate education;
1995 Member of review committee of the history department;
1991-1992 Member of the University Planning Committee;
1990-1993 Member of the Academic Advisory Committee;
1990-1991 Chair, Graduate Academic Affairs Committee;
Plus many other committees involving curriculum planning, promotions, and scholarships in previous years;

NATIONAL AND INTERNATIONAL COMMITTEES

1999-2002 Oversight Board for a European Union funded study of idea-innovation networks in the Netherlands, Austria, Finland and Germany;
1997-1999 Committee to Select the Most Distinguished Career in Sociology for the American Sociological Association;
1997-1998 President, Society for the Advancement of Socio-Economics;
1995-1996 Program Committee, Society for the Advancement of Socio-Economics;
1992-1993 Adviser, Commissariat du Plan, France on design of educational school system;
1991 Panel for President's Commission on the Skilling of the Workforce;
1990-1992 Council, Society for the Advancement of Socio-Economics;
1990-1992 Program Committee, Society for the Advancement of Socio-Economics;
1990-1991 Selection Panel for Western European National Resource Grants, Department of Education;
1989-1992 Oversight Panel, National Cancer Institute study of the COOPS network program;
1989-1990 Review Panel, National Center for Evaluation of Health Care Technology;
Prior to this member of various committees in the American Sociological Association and on the selection committee for Western European scholarships;

HONORS not recognized in the separate Professional Achievement Section

2000 Institute for Advanced Studies, Vienna, Austria;
1998 Research Associate, La Maison de Science de l'Homme, Paris, France;
1997 Fellow, Japan Society for the Promotion of Science;
1997 Institute for Advanced Studies, Vienna, Austria;
1996 Rockefeller Grant for Residence at Bellagio, Italy;
1996 External Review Panel of the Sociology Department, Hunter University, NYC;
1995 Visiting Professor, Bocconi University, Milan, Italy;

1994 Ida Beam Distinguished Visiting Professorship University of Iowa;
1992 Chair, External Review Panel of the Sociology Department, Emory University;
1992 and 1984 Appointed Distinguished Professor, Institute for Advanced Studies, Indiana;
University (The only person to have received this award twice);
1982 Distinguished Professor Lecture Series at the Consortium of Georgia Universities;
1981 Johnson Wax Visiting Professor, University of Surrey, Surrey, UK;
1976 Visiting Professor, Technion, Haifa, Israel;
1975-76 Visiting Professor, Ecole de Mines, Paris, France;
1968 (winter and spring) Visiting Senior Lecturer, University of Aston, Birmingham, UK;

PUBLICATIONS: 17 BOOKS, with the seven most recent being:

2011 Restoring the Innovative Edge: Driving the evolution of science and technology Palo Alto, CA: Stanford University Press
2006 Innovation, Science and Institutional Change: A Handbook of Research (edited with Meeus) Oxford: Oxford University Press three original chapters;
1998 Organizational Innovation (editor) Ashford Press Dartmouth Publishing one original chapter;
1994 Formal Theory in Sociology (editor) SUNY Press, Albany, N.Y. two original chapters;
1993 Organizations Working Together (with Alter), Newbury Park, CA: Sage;
1992 Post-Industrial Lives (with Powers), Newbury Park, CA: Sage;
1990 State Intervention in Health Care (with Hollingsworth and Hanneman), Ithaca, NY: Cornell University Press;

**PUBLICATIONS: PAPERS AND CHAPTERS over 100 papers or chapters in books
MOST RECENT REFEREED PAPERS:**

2010 Transformational Organizations and a Burst of Scientific Breakthroughs: Institut Pasteur and Biomedicine, 1889-1918 (with Jonathan Mote) Social Science History, July
2008 Designing and Facilitating R&D Collaboration: The balance of diversity and integration (with Jordan, Mote and Whitestone) Journal of Engineering and Technology Management, 25, 4: 256-268;
2008 A Theories-Based Systemic Framework for Evaluating Diverse Portfolios of Science Work, Part One: Micro and Meso Indicators (with Jordan and Mote) in Coryn and Scriven (eds.) New Directions for Evaluation, 118, 7-24;
2008 Transformational Organizations and Institutional Change: The case of the Institut Pasteur and French science (with Mote) Socio-economic Review, 6 (2): 313-226;
2008 Perceptions of the Research Environment: Examining the role of researchers networks (with Mote, Whitestone, and Jordan) International Journal of Foresight and Innovation Policy, 4 (3): 246-264;
2007 New Directions in the Use of Network Analysis in R&D Evaluation (with Mote and Jordan) Research Evaluation, 16 (3): 191-203;
2007 A Theories-Based Systemic Framework for Evaluating Diverse Portfolios of Scientific Work, Part Two: Macro indicators Science and Public Policy, 34 (10): 731-741;
2007 Measuring Radical Innovation in Real Time (with Mote and Jordan) International Journal of Technology, Policy and Management, 7 (4): 355-377;

2005 Understanding the Relationship of Maternal Health Behavior Change and Intervention Strategies in a Nicaraguan NGO Network (with Valadez and Vargas) *Social Science and Medicine*, 61: 1356-1368;

2005 Investigating Differences Among R&D Projects and Implications for Managers (with Jordan, Mote and Hepler) *R&D Management* 35 (5): 501-511;

2004 Industrial-Public Knowledge Infrastructure Interaction: Intra-and inter-organizational explanations of interaction learning (with Meeus and Oerlemans) *Industrial Innovation*, 11 (4): 327-352;

2002 Institutional Pathways, Networks, and the Differentiation of National Economies (with Hollingsworth) in Hollingsworth, Müller and Hollingsworth (eds.) *Advancing Socio-Economics: An institutionalist perspective* (London: Rowman and Littlefield): 381-398;

2001 Patterns of Interactive Learning in a High Tech Region. (with Meeus and Oerlemans) *Organization Studies*, 22: 145-72;

2001 Interactive Learning between Industry and Knowledge Infrastructure. An explanation of an extended resource-based model in a high tech region. (with Meeus and Oerlemans) in Bakker, Boekema, Marshall, Retten (eds.) *Knowledge Infrastructure, and Learning Regions*, Edward Edgar;

2000 Strategy for Analyses of Idea Innovation Networks and Institutions (with Hollingsworth) *Organization Studies* 5: 971-1004;

2000 Sectoral Patterns of Interactive Learning: An empirical exploration of a case of Dutch region. (with Meeus and Oerlemans) *Technology Analysis and Strategic Management*, 13: 407-31;

PUBLICATIONS: MOST RECENT NON-REFEREED PAPERS:

2007 R&D Integration: How to build a diverse and integrated knowledge community (with Mote and Jordan) *Proceedings of the Portland International Conference on Management of Engineering and Technology*, 2;

2006 Knowledge and Societal Change: Institutional coordination and the evolution of organizational populations in Sales and Fournier (eds) *Knowledge, Communication and Creativity* (London: Sage);

2006 The Intersection of Philosophy and Theory Construction: The problem of the origin of elements in a theory in Turner et al. (eds.) *Philosophy of Anthropology and Sociology* Elsevier Press;

2005 Organizations and innovation: Contributions from organizational sociology and administrative science in Casper and van Waarden (eds.) *Innovation and Institutions: A multidisciplinary review of the study of innovation systems* (Cheltenham,UK: Edward Elgar): 71-112;

2004 Minding the Gaps: new insights into R&D management and operational transitions of NOAA satellite products. (with Colton, Powell, Jordan, and Mote) *Proceedings of the International Society for Optical Engineering (SPIE)*, 5548 (October): 1-10;

2001 Adaptive Costs: A new institutional paradigm of rules for the competitive game *Current Sociology*, 49 (4);

2000 The Innovation of Organizations and the Organization of Innovation (in German) *Österreichische Zeitschrift für Geschichtswissenschaften* ,11 (1): 67-86;

1999 Organizational Innovation and Organizational Change *Annual Review of Sociology*, 25:597-622.

WORKS IN PROGRESS: BOOKS

One book in progress is *A New Socio-Economic Paradigm: The Evolution of Knowledge and Societal Development*. For the last 50 years, I have been working on a new theory of social change with a particular emphasis on developing an evolutionary model of science and technology. The key insight is that the evolution of knowledge production produces major institutional changes except where obstacles and blockages occur because of path dependencies. Thus the theory can predict both evolution and failed evolution and suggest policies that can overcome path dependencies, a problem critical for both developing and developed countries. As a consequence, it is necessary to move away from the neo-classical model of economic growth to one that argues that it is necessary to develop networks of science and technology for economic growth to continue. This new theory changes the economic models of human capital arguing that it is the diversity of human capital, of transaction cost analysis arguing that it is the building of social capital and trust that is necessary for network formation, and of market coordination by arguing that more complex problems require a new form of coordination, networks. The book will present data from a 150-year study of economic growth in Europe mentioned above. The book also updates a number of classical theories in sociology. Relative to political science, it indicates how failures in societal performance mobilize individuals into social movements to put pressures on the state to correct these failures. A central argument is that via networks, social movements and the state correct societal failures. These evolutionary changes also have a number of implications for how both organizations and individuals must adapt to social change by becoming more complex.

Another book in progress is based on our study of measuring technical progress in the specific case of medical research. The chapters on melanoma, colorectal cancer and breast cancer have been completed. The book suggests a general way of developing metric systems and applying them to research project reports to assess the contributions of the research to societal goals, in this case the reduction in health care costs and expansion of the duration of life.

Works in Progress: Papers

Good Jobs and Work Satisfaction in Scientific Research (with Mote, Hadden, Lucas and Jordan), a paper that reports three waves of data collection in STAR over a six year time period, has been sent to *Social Forces* for review.

What are Good Jobs in Public Research Organizations? The Distinctive Characteristics of Research Work (with Mote, Clark, and Jordan), a paper that reports the analysis of 260 scientists in six major public research laboratories, about to be sent to the *American Sociological Review*.

Conversion of the 70 page report to the Liverpool School of Tropical Medicine into a paper (with Valadez, Devkota, and Das) to be entitled *A Strategy for Changing Large Health Care Bureaucracies: The case of India's malaria program* for the journal of *Social Science and Medicine*;

Conversion of a series of reports on the innovation management of the STAR division during the period of 2005-2012 for the Bulletin of Meteorology;

The large data base of material from the three wave panel of STAR scientists and the 260 in the six major research public research laboratories are being analyzed to do several papers on what determines scientific learning, the management of innovation, and most critically why do large public research organizations produce reduce job satisfaction among scientists.

RESEARCH ACTIVITIES: BASIC RESEARCH GRANTS

Nine major National Science Foundation research grants have been awarded to me, the three most recent:

2009-2011 Program on the Science of Science and Innovation Policy (joint with Hadden and Jordan) to measure technical progress in medical research in real time.

2007-2012 Program on the Science of Science and Innovation Policy (joint with Mote and Jordan). Purpose of the grant is to build theory about the determinants of scientific innovation in public research laboratories;

1997-2000 Program in the History of Science and Technology (joint with Hollingsworth) Purpose of the grant is to study the determinants of radical innovation in biomedicine during the period of 1880-1980;

Two grants from first Vocational Rehabilitation Services and second from its successor Social and Rehabilitation Services to study the determinants of organizational innovation Three grants from foreign governments, one each from Sweden, France, and Chile.

Two small grants, one from the National Science Foundation to study small high tech companies in the U.S. and France and one from the American Sociological Association to hold a conference on theory construction;

RESEARCH ACTIVITIES: APPLIED RESEARCH CONTRACTS, the most recent are:

2012-2013 Consulting on how to mobilize a community to change the health behaviors of African-Americans in Sheldon Township, S.C. so as to lower their hypertension and obesity;

2011 Consultancy with the Liverpool School of Tropical Medicine to solve the problem of why Indian health care bureaucracies do not respond to recommendations to improve their services;

2008 Canadian Academy of Health Sciences to develop a system for measuring the value of medical research in real time;

2005-2012 STAR division of the National Oceanographic Agency to study processes of innovation and estimate the value of new innovative products;

2003-2005 Department of Energy, office of strategic planning, to hold two international and interdisciplinary conferences on the frontiers of innovation research and to publish a book from these conferences;

2001-2009 Sandia National Laboratories to develop instruments for measuring processes of innovation including measuring innovation in real time and evaluate organizational changes;

2001-2003 Consortium of NGOs with funds from the Agency for International

Development to develop measures of the value added in inter-organizational networks in developing countries for a project in Nicaragua designed to change women's reproductive health;

Earlier contract grants include the Department of Education, the Library of Medicine, U.S. Public Health Services, Agency for International Development, and the National Association for Public Administration;

INTERNATIONAL CONFERENCES AND INVITED LECTURES over 60, some examples of when I was invited because of my expertise in innovation.

2004 E.U. Conference on evaluation, Brussels, Belgium to discuss the determinants of radical innovation in organizations;

1996 Royal Academy of Science, Conference on Major Discoveries in Bio-Medicine, Stockholm, Sweden where I presented a paper on the concentration of major discoveries in a few research organizations in Britain, France, Germany and the United States (with Hollingsworth, Hollingsworth, and Bjork);

1995 O.R.S.TO.M. (the French U.S.A.I.D.) Conference on the Java Sea held by Pelfish, Semarang, Indonesia, where I presented a paper on the problems of too much innovation;

1994 Ministry of Education. Conference on the French Education Research, Paris France where I presented a paper designed to show how one could measure social efficiency of investments in technical education (with Garnier);

Examples of recent conferences that were refereed:

2005 Research Management conference, Pisa, Italy, where I presented a paper on the balance needed between diversity and integration to achieve innovation (with Mote);

2002 World Congress of Sociology, Melbourne, Australia, where I presented a paper on the growth in knowledge and the consequences for the nature of organizational competition;

An example of two international and interdisciplinary conferences that I organized with Meeus at Tilberg University with a grant from the Department of Energy, office of strategic planning to do a book on the frontiers in innovation research:

2003 Utrecht, the Netherlands

2004 Kech Institute, Claremont Colleges, U.S.A.

An example of some of the universities where I have been invited to give talks recently:

2002 while in Australia for the World Congress, I was invited to give a lecture on the demise of the American footwear industry at the Australian School of Business in Sydney, Australia

2001 while in China, I was invited to give two different kinds of lectures at four separate Chinese Universities—Fudan University (economics department) in Shanghai, Zi'an Jiantong University in Xi'an, Hangzhou University in Hangzhou, and Beijing Technical University in Beijing—one on development strategies for developing countries and the other on the evolution of knowledge and its consequences for competition

NATIONAL AND REGIONAL CONFERENCES AND INVITED LECTURES, over 80, most of which are not refereed. Four refereed panels that I organized recently all of which focus on how to evaluate innovation:

2011 American Evaluation Association, Anaheim, CA on a new policy model for the evaluation of science and technology;

2009 American Evaluation Association, San Antonio, TX, on a way of measuring technical progress in scientific research;

2007 American Evaluation Association, Baltimore, MD the impact of evaluation on the performance of innovation in the STAR division of NOAA;

2006 American Association for the Advancement of Science, St. Louis, MO a panel on the determinants of innovation in science;

The following policy think-tanks invited me to discuss a new policy for science and technology so as to encourage more innovation:

2012 Information Technology and Innovation Foundation, Washington, D.C.

2010 Woodrow Wilson Center, Program in the New Economy, Washington, D.C.

2010 Office of Science and Technology Policy, White House, Washington, D.C.

2009 Joint program in science and technology policy, George Mason and George Washington Universities, Washington, D.C.

2009 Institute for Defense Analysis, Washington, D.C.

Because of my new book on the evolution of science and innovation, I have been recently invited to give talks to the following universities who are interested in my new theory of social change, which is one of the books I am writing presently:

2012 University of Pennsylvania (sociology)

2011 George Washington University (speech and hearing)

2011 Emory University (sociology)

2010 University of Wisconsin (sociology), Madison, Wisconsin,

2009 University of California—Riverside (sociology)

Other invitations to provide expertise about innovation include:

2008 Workshop on evaluating graduate education in engineering relative to innovation, Engineering Education Division of the National Science Foundation;

National and regional conferences in which I have given more than three annual presentations include: American Sociological Association, Eastern Sociological Association, American Social Science History Association, Council for European Studies, and the American Academy of Management.

EDITORIAL BOARDS

Member of six different journal boards for three years each: American Sociological Review, The Theory Journal of Sociology, Social Forces, Organizational Studies, Administrative Science Quarterly, and Organization and Administrative Science

PROFESSIONAL AFFILIATIONS

Society for the Advancement of Socio-economics, give papers, member of program committee, elected president, member of committee to create a new journal;

American Sociological Association, give papers, elected first secretary, then chair of the section on organizations, elected secretary of the section of theory, member of two of their professional journals;

American Association for the Advancement of Science, organized panels;

PROFESSIONAL TRIPS OUTSIDE THE UNITED STATES

2012, October through December (two months), Sydney, Australia to consult on the development of a research program in innovation and development;

2011 December (three weeks) trip to Odessa, India to collect data and consult on how to change a government health bureaucracy;

2011 Trip to Madrid, Spain to give a paper on the evolution of science and technology to SASE conference;

2011 Trip to Cork, Ireland to give a paper on a new theory of social change to conference on Social Theory;

2009 Trip to Paris, France to give a paper on networks as a new form of coordination to SASE conference;

2009 January (four weeks) Fulbright Scholar at the University of Chile, Santiago, Chile;

2008 April University of Chile, Santiago, Chile to give lectures and teach in a new master degree development program, sponsored by the department of sociology;

2005 Trip to Pisa, Italy to give a paper to R&D Management Association

2004 April, May (six weeks) University of Tilberg, Tilberg, the Netherlands, to give lectures and advise students in a new PhD program, sponsored by the department of organizational studies at the University;

2001 April, May and June (three months), Eindhoven Technology University, Eindhoven, the Netherlands, to give lectures and advise students in the management of technology

2000 four months in the spring Paris France to use the archives with funding from the National Science Foundation for studying radical innovations in biomedicine;

1998-99 ten months Fellow at the Netherlands Institute for Advanced Studies, Wassenaar, the Netherlands, a member of a group studying innovation;

1998 four months in the spring Paris France to use the archives with funding from the National Science Foundation for studying radical innovations in biomedicine

Since 1966, I have lived in France for three months each year.