

CURRICULUM VITAE

José Antonio Lobo

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Date & Place of Birth: April 18, 1962
San Juan, Puerto Rico

Citizenship: United States of America

Education

1984 **Bachelor of Science**, Physics, Cornell University
1992 **Master's in Regional Science**, Cornell University
1996 **PhD**, Regional Science, Cornell University

Research Interests

- Determinants of metropolitan economic performance and location-specific economic growth.
- How the characteristics of individuals, organizations, institutions, and social networks interact to create “regions of innovation.”
- Causes and consequences of urban size and scaling.
- Application of machine learning, data mining and spatial statistics methods to the study of socio-economic data.

Employment

February 2007 – Present Arizona State University, Tempe, Arizona
Assistant Research Professor, School of Human Evolution and Social Change and W.P. Carey School of Business

February 2005 – January 2007 Arizona State University, Tempe, Arizona
Research Scientist, Global Institute of Sustainability

August 2004 – December 2004 Università di Modena e Reggio Emilia, Reggio Emilia, Italy
Visiting Researcher, Department of Social, Communication and Cognitive Sciences

January 2003 – December 2003 Santa Fe Institute, Santa Fe, New Mexico
Visiting Researcher

October 2002 – February 2004	<u>Cap Gemini Ernst & Young</u> , Consumer Products/Retail/Distribution Practice Statistics and Economics Consultant
May 2001 – November 2002	<u>BiosGroup Inc.</u> , Santa Fe, New Mexico Senior Scientist
1997 – 2002	<u>Cornell University</u> , Ithaca, New York Assistant Professor , Graduate Field of Regional Science, Department of City and Regional Planning
1995 – 1997	<u>Cornell University</u> , Ithaca, New York Instructor , Department of City and Regional Planning
1989 – 1990	<u>United Nations Observation Mission to the Electoral Process in Nicaragua</u> , Esteli, Nicaragua Field Coordinator
1985 – 1988	<u>United Nations High Commissioner for Refugees</u> , Esteli, Nicaragua Field Representative

Research Affiliations

2008 – present	Faculty Steering Committee, Center for Social Dynamics and Complexity, Arizona State University
2003 – 2006	Member, Information Society as a Complex System (ISCOM) Research Project (http://www.iscom.unimore.it/)
2003 – present	Member, Santa Fe Institute Working Group on Urban and Organizational Scaling
1999 – 2001	Faculty Steering Committee, Interdisciplinary Graduate Fellowships in Nonlinear Systems, Cornell University.
1997 – 1999	Economics Research Program, Santa Fe Institute.
1993 – 1996	Graduate Fellow, Santa Fe Institute.

Publications

Lobo, José and Deborah Strumsky (2008) “Metropolitan patenting, inventor agglomeration and social networks: A tale of two effects,” *Journal of Urban Economics*, 63, Pages 871-884.

Bettencourt, Luis, José Lobo and Geoffrey West (2007) “Why Are Large Cities Faster? Universal Scaling and Self-Similarity in Urban Organization and Dynamics,” forthcoming in *European Journal of Physics B*.

- Bettencourt, Luis, José Lobo and Geoffrey West (2007) "The self similarity of human social organization in cities," to appear in David Lane, Denise Pumain, Sander van der Leeuw and Geoffrey West, editors, *Complexity Perspectives in Innovation and Social Change*. Berlin: Springer-Verlag.
- Bettencourt, Luis, José Lobo, Dirk Helbing, Christian Kühnert and Geoffrey West (2007) "Growth, innovation, scaling and the pace of life in cities," *Proceedings of the National Academy of Sciences*, 104, 7301-7306.
- Bettencourt, Luis, José Lobo and Deborah Strumsky (2007) "Invention in the city: increasing returns to patenting as a scaling function of metropolitan size," *Research Policy*, 36, 107-120.
- Pumain, Denise, Fabien Paulus, Céline Vacchiani-Marcuzzo and José Lobo (2006) "An Evolutionary Theory for Interpretating Urban Scaling Laws" *CyberGeo: Revue Européenne de Géographie*, 343, 1-20.
- Lobo, José, John Miller and Walter Fontana (2004) "Neutrality in Technological Landscapes." (<http://zia.hss.cmu.edu/miller/papers/neut.pdf>)
- Lobo, José, Matthew Drennan and Deborah Strumsky (2004) "An Application of the Unit Root Test to the Question of Income Convergence Across U.S. Metropolitan Areas," *Journal of Economic Geography*, 4, 583-595.
- Deisboeck, Thomas, Mark Kimura, José Lobo and Yuri Mansury (2002) "Emerging Patterns in Tumor Systems: Simulating the Dynamics of Multicellular Clusters with an Agent-Based Spatial Agglomeration Model," *Journal of Theoretical Biology*, 219, 343-370.
- Drennan, Matthew, Shannon Larsen, José Lobo, Deborah Strumsky and Wahyu Utomo (2002) "Sectoral Shares, Specialization and Metropolitan Wages in the United States, 1969-1996," *Urban Studies*, 39, 1129-1142.
- Levitan, Bennett, José Lobo, Stuart Kauffman and Richard Schuler (2002) "Evolution of Organizational Performance and Stability in a Stochastic Environment," *Computational and Mathematical Organization Theory*, 8, 281-313.
- Lobo, José and David Smole (2002) "Stratification and Spatial Segregation of Human Capital as Determinants of Metropolitan Productivity in the United States," *Urban Studies*, 39, 529-547.
- Auerswald, Phillip, Stuart Kauffman, José Lobo and Karl Shell (2000) "The Production Recipes Approach to Modeling Technological Innovation: An Application to Learning By Doing," *Journal of Economic Dynamics and Control*, 24, 389-450.
- Bhatta, Saurav and José Lobo (2000) "Human Capital and Per Capita Output: A Comparison of U.S. States," *Papers in Regional Science*, 79, 393 – 411.
- Kauffman, Stuart José Lobo and William Macready (2000) "Optimal Search on a Technology Landscape," *Journal of Economic Behavior and Organization*, 43, 141 – 166.
- Drennan, Matthew and José Lobo (1999) "A Simple Test for Convergence of Metropolitan Income in the United States," *Journal of Urban Economics*, 46, 350-359.
- Lobo, José and William Macready (1999) "Landscapes: A Natural Extension of Search Theory," Santa Fe Institute Working Paper 99-05-037E.

Lobo, José and Norma Rantisi (1999) “Investment in Infrastructure as Determinant of Metropolitan Productivity,” *Growth and Change: A Journal of Urban and Regional Policy*, 30, 106-127.

Isard, Walter and José Lobo (1998) “Regional Transitions and Noise,” *CyberGeo: Revue Européenne de Géographie*, 47 (<http://www.cybergeogeo.eu/index346.html>).

Lobo, José and Richard Schuler (1997) “Efficient Organization: Urban Hierarchies and Landscape Criteria,” in Schweitzer, F. editor, *Self-Organization of Complex Structures: From Individual to Collective Dynamics*. London: Gordon and Breach.

Lobo, José (1995) “Stochastic Fluctuations, Noise-Induced Transitions, and the Blowtorch Theorem: Does Noise Matter in Economics?,” in L. Nadel and D. L. Stein, editors, *1993 Lectures in Complex Systems*, SFI Studies in the Science of Complexity, Vol. VI, Reading, MA: Addison-Wesley.

Reports

“Mobility of Inventors in the United States, 1965 – 2007.” (2008) José Lobo and Deborah Stusmky. Prepared for the Ewing Marion Foundation.

“Nanotechnology Patenting in the United States, 1974 – 2005.” (2006) José Lobo and Deborah Stusmky. Prepared for the Center for Nanotechnology in Society, Arizona State University.

Teaching Experience

- Undergraduate courses in statistics, data analysis and econometrics.
- Graduate level courses in microeconomics, spatial and urban economics, economic growth theory, data analysis and econometrics.

Computer Skills

- Proficient in Matlab, Mathematica, SAS (Base SAS and Data Mining Software), S-Plus, Econometric Views, Stata, Unix Shell Programming and Latex. Familiar with Java, C++ and C.

Other Skills

- Certified Red Cross First Responder.
- PADI Certified Advanced Open Water Diver and Dive Master.