

# Resume

**Paul N. Rappoport**

## **Professional Experience**

- 1993-1996      Director  
Cochran Center for Economic and Business Research  
School of Business and Management  
Temple University  
Philadelphia, PA 19122
- 1977-            Associate Professor of Economics  
School of Business and Management  
Temple University  
Philadelphia, Pa. 19122
- 1983 -           Member, Monetary Policy Forum  
Washington, D.C.

## **Education**

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|------|---|-------------------|
| 1969 | Oberlin College<br>Oberlin, Ohio        | B.A. (honors)     |
| 1971 | Ohio State University<br>Columbus, Ohio | M.A. (economics)  |
| 1974 | Ohio State University<br>Columbus, Ohio | Ph.D. (economics) |

## **Visiting Positions and Awards**

1973	Visiting Economist, Board of Governors of the Federal Reserve System
1975	NASA ASEEE Faculty Fellow
1979	EPRI Research Fellowship
1989	Visiting Economist, Institute for International Telecommunications Management, Omaha, NE.
1990	Visiting Economist, Community Foundation for Human Development
2002	Consulting Economist for Global Insight

## **Director of Cochran Research Center**

Directed Research:

1994	Employment Forecasting for City of Philadelphia, Department of Finance
1994	Quality Assurance Survey for Philadelphia District, U.S. Post Service
1995	Quality Assurance Analysis for South Jersey District, U.S. Post Service
1995	Short Term Employment and Occupational Forecasting, for City of Philadelphia, Office of Community Affairs
1996	Analysis of the Market for Sheet Metal, for Sheet Metal Contractor's Association
1996	High Tech Employment Outlook, for the Franklin Institute

## **Monographs**

FORECASTING THE DEMAND FOR INTERNATIONAL MESSAGE TELEPHONE SERVICES, 1977, Federal Communications Commission

ENERGY USE IN THE TRANSPORTATION SERVICES SECTOR, Electric Power Research Institute, 1978.

## Selected Publications and Presentations

"Vacancies, Expectations, and the Phillip's Curve," (With T. Kniesner), Proceedings of the American Statistical Association, pp. 423-28, 1973.

"The Use of Time Series Techniques in Forecasting Meteorological Drought," (With J. Davis), Monthly Weather Review, Vol. 102, pp. 176-184, 1974.

"The Illusion of the Shifting Phillip's Curve: A Model with Random Coefficients", (With T. Kniesner), Proceedings of the American Statistical Association, pp. 535-39, 1975.

"Energy Conservation and systems, Technologies and Requirements", ECASTAR, Ed. R. Vachon, ASEE, 1975.

"Relative Efficiencies of some Simple Bayes Estimators of Coefficients in Dynamic Economic Models - 1," Journal of Econometrics, pp. 245-258 (with P.A.V.B. Swamy), 1977.

"Forecasting the Demand for International Message Telephone Services," (With K. Stanley), Proceedings of the 5th Annual Telecommunications Policy Conference, Airlie House, 1977.

"Energy Usage in Transportation: Integration of Supply and Demand," (With J. Savitt), Proceedings of the American Statistical Association, 1977.

"An Analysis of ATT Exhibits for Docket 20003," Appendix C, The Federal Communications Commission's Second Report in Docket 20003, 1977.

"Two Methods of Evaluating Hoerl and Kennard's Ridge Regression Estimator," Communication in Statistics, A3, (with P.A.V.B. Swamy and J.S. Mehta), 1978.

"Relative Efficiencies of some Simple Bayes Estimators of Coefficients in a Dynamic Equation with Serially Correlated Errors - 2," Journal of Econometrics, pp 1-19, (with P.A.V.B. Swamy), 1978.

"The Problem of the Shifting Phillip's Curve," Economic Letters, Vol 5, No. 4, 1981.

"The International Trade in Automobiles: Explaining short Run Changes in the Import Share of the U.S. Market," Journal of Policy Modeling, (with William Finan), 1981.

"A Ridge Regression analysis of OCC Telephone Demand," Communications in Statistics, April 1983.

"Builder Bonds and Their Impact on the construction Industry," Economic Bulletin of the National Association of Home Builders, 1985.

"Risk Assessment: An Expert Systems Approach," Proceedings of the Second International Roundtable on Risk Assessment, San Francisco, 1988.

"Quality Assurance in Mental Retardation: A Simultaneous Equations Model", Proceedings of the National Association of Welfare Research and Statistics, 1989.

"International Telecommunication Policy Options: A Simulation Approach," (with J. Alleman), Journal of European Communications, March, 1990.

"Factors that Predict Quality of Care in Residential Settings," with D. Austin, presented to the *Young Adult Institute*, New York, April, 1990.

"The National Telecommunications Demand Elasticity and Marketing Study: Round 1 Results and Round 2 Progress," (with L. Taylor), presented to *Bell Canada Conference on Telecommunications*, Hilton Head, 1990.

"Linking New Product Forecasts to Existing Product Model", presented to *BellCore Telecommunications Forecasting Conference*, St. Louis, 1990.

Procedimientos de Ajuste Alternativo para un Servicio Interacional de Telecomunicaciones: Una Simulacion, with J. Alleman, Telecomunicaciones, 1990.

"The Modeling of Custom Feature Bundles," with Lester Taylor and Don Kridel, presented at the *Southern Economic Association Meetings*, Nashville, 1991.

"A Comparison of Non-Parametric and Parametric Estimation of the Demand for Telephone custom Calling Features," with Lester Taylor and Don Kridel, presented at *the Eleventh Annual Conference of the Advanced Workshop in Regulation and Public Utility Economics*, May, 1992.

"Economic Impact of BOC Participation in Telecommunications Equipment and Information Services." WEFA, September, 1992.

"Telecommunications and Economic Development: A Study of Telecommunications Impact on Economic Development in Southern Africa", with J. Alleman and L. Taylor, prepared for the United States Agency for International Development, October, 1992.

"An Econometric Forecasting Model of Child Abuse Cases." with J. Skiba, *Proceedings of the 32nd Annual Workshop of the National Association of Welfare Research and Statistics*, Columbus, OH, 1993.

"Applying the Classifier - Bucket Brigade Algorithm to the Demand for Custom and Class Calling Features," with L. Taylor and D. Michel, presented to the *1993 National Telecommunications Forecasting Conference*, Arlington, VA, 1993.

The Demand for Second Lines," with J. Kling, presented at the *12th Annual Conference of the Advanced Workshop in Regulation and Public Utility Economics*, July, 1993.

"An Econometric Analysis of Quality in Mental Retardation," with A. King, in *NORTH AMERICAN HEALTH CARE POLICY IN THE 1990'S*, ed. by A. King, T. Hyclack, and r. Thornton, Wiley, 1993.

"Competition in US Long Distance Markets: Carrier Choice Models using Bill Harvesting," (with D. Kridel and L. Taylor), presented at the *11th Biennial Conference of the International Telecommunications Society*, Seville, Spain, June, 1996.

“A Detailed Look at the Practice of Bundling and Unbundling Telecommunication Products and Services,” presented at the *10th Annual Pricing Institute Conference on Strategic Positioning and Pricing*, Chicago, April, 1997.

“The Demand for Internet Access,” (with D. Kridel and L. Taylor) presented at *Global Networking 97*, Calgary, Canada, June, 1997.

“IntraLATA Long Distance Demand: Choice, Usage Demand and Price Elasticities,” (with L. Taylor and D. Kridel), presentation to the *1997 International Communications Forecasting Conference*, San Francisco, June, 1997.

“The Demand for Access to on-line Services and the Internet,” (with D. Kridel and L. Taylor), presentation to the *1997 International Communications Forecasting Conference*, San Francisco, June, 1997.

“Toll Price Elasticities Estimated from a Sample of Residential Bills,” (with L. Taylor) in *Information Economics and Policy*, 9, 51-70, 1997.

“Competition in intraLATA Long Distance: Carrier Choice Models Estimated from a Sample of Telephone Bills,” (with D. Kridel and L. Taylor) forthcoming in *Information Economics and Policy*.

“Strategic Marketing in a Competitive Marketplace,” presentation at the *Canadian Institute’s Conference on Competitive Marketing Strategies for Telecommunications*, Toronto, Canada, September, 1997.

“Forecasting Internet Demand Using A Hybrid S Curve Model,” presented to the *Institute for International Research Conference on Market Forecasting*, London, December 2, 1997.

“Demand for Access to On-line Services,” (with D. Kridel and L. Taylor) in *TELECOMMUNICATIONS: TRANSFORMATIONS: TECHNOLOGY, STRATEGY AND POLICY*, E. Bohlin and S. Levin, editors, IOS Press, Netherlands, November, 1998.

“An Econometric Study of the Demand for Access to the Internet”, (with L. Taylor and D. Kridel), presented at the *Twelfth Biennial Meetings of the International Telecommunications Society*, Stockholm, Sweden, June 21, 1998.

“Telecommunications Pricing: An ILEC Perspective,” presented to the *9<sup>th</sup> Professional Pricing Society Conference*, Chicago, October 29, 1998.

“Forecasting Small Business Telecommunications Switching Behavior”, *Proceedings of the Institute for International Research Conference on Strategic Forecasting*, New Orleans, September 15, 1998.

“Empirical Analysis of the Demand for Telecommunications Services in the SOHO (Small Office / Home Office) Market”, presented to the *Institute for International Research Third Annual Conference*, Miami, January 26, 1999.

“Competitive Pricing of Telecommunications Services”, presented to the *Institute for International Research Conference on Pricing*, Washington, D.C., March 25, 1999.

“An Econometric Study of the Demand for Access to the Internet,” (with L. Taylor and D. Kridel), in INTERNATIONAL COMMUNICATIONS FORECASTING CONFERENCE SELECTED PAPERS by Kluwer Academic Publishers, May, 1999.

“The Demand for Cable Modems: Broadband Access to the Internet by U.S. Households,” (with L. Taylor and D. Kridel), presented to the *1999 International Telecommunications Forecasting Conference*, June 16, Denver, 1999.

“An Econometric Analysis of Broadband Telephony”, (with L. Taylor and D. Kridel) to be presented at the *1999 Meetings of the International Telecommunications Society*, Turino, Italy, September 2, 1999.

“An Econometric Study of the Demand for internet Access” (with L. Taylor and D. Kridel) in THE FUTURE OF THE TELECOMMUNICATIONS INDUSTRY: FORECASTING AND DEMAND ANALYSIS, pp. 21-42, Kluwer Academic Publishers, September, 1999.

“Universal Service: The Poverty of Policy”, (with J. Alleman and D. Weller), pp. 850-877, University of Colorado Law Review, Vol 71, June 2000.

“Business Demand for Broadband Services,” presented at conference on *New Technologies, new Competitors & Public Policy*, May, 5, 2000 University of Arizona, Tucson.

“The Demand for High Speed Access to the Internet”, paper to be presented at the *13<sup>th</sup> Biennial Conference of the International Telecommunications Society*, July, Buenos Aires, Argentina, July, 2000.

“An Econometric model of Business Demand for Bandwidth,” (with L. Taylor and D. Kridel), presented to the 18<sup>th</sup> annual conference of the International Communications Forecasting Conference, Seattle, September 26-28, 2000.

Seminar presentation: “Business Demand for Bandwidth”, to Columbia University’s Center for Tele-Information, May 4, 2001.

“Broadband Usage”: presentation to: The Digital Divide, Columbia University’s Center for Tele-Information, June 11, 2001.

“Business Demand for Bandwidth: Model Development and Validation” presentation to the International Communications Forecasting Conference, June 28, 2001, Washington, DC.

“Forecasting Bandwidth Demand and Internet Usage”, presentation to the 10th Annual Telecoms Forecasting Conference, July 9, 2001, Brussels.

"A Model for Carrier Choice for Intralata Toll Calling Using Residential Telephone Bills" (with Donald J. Kridel and L. Taylor), Information Economics and Policy, 13 (June, 2001), pp. 267-282.

“A Discrete – Continuous Choice Analysis of Residential Broadband Demand,” (with L. Taylor and D. Kridel). presentation to the AEI-Brookings Joint Conference on Broadband Communications, Washington, D.C., October 5, 2001.

“Making the Grade: The Internet’s Role as a Channel of Information During September 11, 2001,” presentation to Columbia University’s Center for Tele-Information, October 17, 2001.

“Access, Value and Content: Behavioral Analysis of Internet Usage,” presentation to Columbia University’s Center for Tele-Information, October 26, 2001.

“IntraLATA Long-Distance Demand: Carrier Choice, Usage Demand And Price Elasticities” with D. Kridel and L. Taylor, International Journal of Forecasting, Volume 18, no. 4, pp. 545-559, October-December, 2002.

“Universal Service”, (with J. Alleman), Chapter 14 in the International Handbook of Telecommunications Economics, Volume I, ed G. Madden, Edward Elgar, May, 2003.

"An Econometric Model of the Demand for Access to the Internet by Cable Modem" (with Donald J. Kridel and L. Taylor), in Forecasting the Internet: Understanding the Explosive Growth of Data Communications, ed. by D.G. Loomis and L.D. Taylor, Kluwer Academic Publishers, 2001.

“Residential Demand for Access to the Internet”, (with L. Taylor, D. Kridel and K Duffy-Deno), Chapter 5 in the International Handbook of Telecommunications Economics, Volume II, ed G. Madden, Edward Elgar, May, 2003.

“The Demand for Broadband: A View from the U.S.” with J. Alleman and L. Taylor, presented to the 23rd International Conference of IDATE: Telecom - Internet - MediaTime for Broadband ? 22 - 23 NOV. 2001, Montpellier, France

“Broadband demand: Lessons from Clickstream data”, presentation to MIT Program on Internet and Telecoms Convergence, January 16, 2002, Cambridge, MA.

“The Demand for Broadband: Access, Content and the Value of Time”, with L. Taylor and D. Kridel, in Should We Regulate High Speed Internet Access, B. Crandall and J. Alleman, ed, Brookings Press, 2002.

“The Internet and the Demand for News”, Prometheus, Vol. 20, No. 3, pp 255-262, 2002.

“Willingness to pay and the Demand for Broadband Service” with D. Kridel and L. Taylor, presentation to the 2002 Meetings of the International Communications Forecasting Conference, San Francisco, June 28, 2002.

"Willingness to Pay: Modeling the Demand for Broadband Services, An Empirical Study", with L. Taylor and D. Kridel, presented to the 2002 International Telecommunications Society Biennial Conference, Seoul, Korea.

“New Approaches to Estimating Willingness to Pay”, with L. Taylor and D. Kridel, presented to the 13th Regional ITS Conference, Madrid, Spain, 2002.

“Modeling Regulatory Distortions with Real Options”, with J. Alleman, paper presented to the 2002 ICFC Conference, San Francisco.

“Modeling Regulatory Distortions with Real Options: A Case Study of DSL Deployment”, with J. Alleman, paper presented at the 2002 Telecommunications Policy Research Conference (TPRC), Alexandria, Virginia.

“Modeling Regulatory Distortions with Real Options, with J. Alleman, Engineering Economist, Volume 47, Number 4, 2002, pp. 389-416.

“The Internet and the Demand for News”, paper presented on a conference Focus on September 11: Lessons in Communication, New York University, 2002

“Simple Decision Making Criterion as Real Options”, with Hirofumi Sata and J. Alleman, forthcoming in the Proceedings of International Conference on Computational Intelligence for Financial Engineering, Hong Kong, 21-23 March 2003.

“Analysis of Mobile Internet Demand using Data on Willingness-to-Pay,” with L. Taylor and J. Alleman, presented to the International Telecommunications Society’s Asia-Australian Regional Conference, June 22-24, Perth Australia.

“Willingness-to-Pay and the Demand for Broadband Service, with D. Kridel and L. Taylor, in Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies, Allan Shampine, ed., Nova Science Publishers, Inc., 2003.

“ The Internet and the Demand for News:Macro and Micro Evidence”, Crisis Communications, ed. M. Noll, Rowman & Littlefield, September, 2003

“Willingness to Pay and the Modeling the Demand for Broadband Services” with L. Taylor and D. Kridel, Global Economy and Digital Society, Editors: Erik Bohlin (Chalmers University), Stanford L. Levin (Southern Illinois University at Edwardsville), Nakil Sung (University of Seoul), Chang-Ho Yoon (Korea University) Publisher North Holland/Elsevier, forthcoming 2004.

“Analysis of Mobile Internet Demand Using Data on Willingness-to-Pay”, with L. Taylor and J. Alleman, Chapter 10 *in* FRONTIERS OF BROADBAND, ELECTRONIC AND MOBILE COMMERCE Contribution to Economics Series, Physica-Verlag, Heidelberg EDITED BY RUSSEL COOPER AND GARY MADDEN, February, 2004

“Household Demand for Wireless Internet Access: An Empirical Analysis,” with L. Taylor and J. Alleman, presented to the 31<sup>st</sup> Research Conference on Communication, Information and Internet Policy, George Mason Law School, Arlington, VA., September 20, 2003.

“Residential Demand for wireless Telephony,” with D. Kridel and L. Taylor, submitted to Information Economics and Policy, April, 2004

“An Econometric Analysis of VoIP”, presentation to the Global Communications Strategy Forum 2004, with L. Taylor, D. Kridel and J. Alleman, Dallas, May 5, 2004.

“Estimating the Demand for VoIP Services,” with J. Alleman, presented to Global Communications Consortium conference: Competition in Networking: Wireless and Wireline, London Business School, May 13-14, 2004

“Pricing and willingness to Pay: Sizing the Market for Advanced Telecommunications Services,”, presentation to the Columbia University Center for Tele-Information, May 25, 2004.



“Forecasting VoIP Demand”, with L. Taylor, D. Kridel and J. Alleman, presentation to the International Symposium on Forecasting, Sydney, July 3-7, 2004.

“Demand for Voice over Internet Protocol: Financial Implications,” with J. Alleman, Telecom Financial & Asset Management Conference, International Quality & Productivity Center, Denver, 27-28 July 2004.

The Demand for Voice over IP: An Econometric Analysis using Survey Data on Willingness-to-Pay, with L. Taylor, J. Alleman, D. Kridel, forthcoming in Teletronikk

“Modeling Regulatory distortions with Real Options,” presentation to the International Telecommunications Society 15<sup>th</sup> Biennial ITS Conference, Berlin, September 5 2004, with James Alleman, L. Taylor and D. Kridel.

“An Investment Decision-making Criterion Incorporating Real Options,” presentation to the International Telecommunications Society 15<sup>th</sup> Biennial ITS Conference, Berlin, September 5 2004, with James Alleman and Hirofumi Suto.

“Demand for Voice over Internet Protocol: An Econometric Approach”, with J. Alleman, L. Taylor and D. Kridel, presentation to the International Telecommunications Society 15<sup>th</sup> Biennial ITS Conference, Berlin, September 7 2004