

# Curriculum Vitae

## *Brian P. Macfie, Ph.D.*

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### **EDUCATION**

Rutgers University: Ph.D. in Global Economic Affairs (2004)  
Rutgers University: M.A. in Political Economy (2001)  
Rutgers University: M.S. in Public Policy (2000)  
Monmouth University: M.B.A. (1986)  
Rutgers University: M.A. in Economics (1981)  
Seton Hall University: B.A. in Economics (1977)

Ph.D. Dissertation: *Regional Trade Agreements and Shifts in Hegemony*

Teaching Interests: Public Policy Economics and Regulation, Statistical Analysis, Forecasting Methodology

Research Interests: Arizona regional economic development, Energy economics, Regulatory economics

### **TEACHING EXPERIENCE**

Arizona State University – W.P. Carey School of Business: Tempe, AZ  
Department of Economics

Faculty Associate Economics and Statistics (2003 - 2005)  
Lecturer Economics and Statistics (2005 - 2012)  
Clinical Assistant Professor of Economics (2012 - present)

#### Undergraduate Courses taught

ECN 211 – Macroeconomics  
ECN 212 – Microeconomics  
ECN 221 – Statistical Analysis  
ECN 306 – International Economics  
ECN 381 – Managerial Economics  
ECN 410 – Applied Regression Analysis  
ECN 421 – Labor Economics  
SBS 303 – Research Methods  
SBS 304 – Social Statistics I  
ECN 499 – Individual instruction (Economics)

#### Graduate Courses taught

ECN 502 – Managerial Economics  
ECN 503 – Managerial Decision Making  
BUS 591 – Microeconomics of Public Policy

## **TEACHING EXPERIENCE (cont)**

University of Phoenix, Online - Phoenix, AZ  
Instructor, Economics and Statistics, 1999 - 2004

Monmouth University - W. Long Branch, NJ  
Adjunct, Economics and Statistics, 1999 - 2002

Ocean County College - Toms River, NJ  
Adjunct, Economics and Statistics, 1985 - 2002

Middlesex County College - Edison, NJ  
Adjunct, Economics and Statistics, 1981 - 1985

## **REFEREED ARTICLES AND PUBLICATIONS**

Macfie, Brian P. *"Impact of Utility Deregulation in Arizona,"* Contemporary Economic Policy (CEP), Western Economics Association International (April 2008).

Macfie, Brian P. and Philip M. Nufrio. *Applied Statistics for Public Policy*. M. E. Sharpe Publishing, Armonk, NY. (2005).

Macfie, Brian P. and Roy R. Churchman. (1997). *"Using Load Research at NJNG to Develop Cost of Service Allocation Factors."* Public Utilities Fortnightly, vol 135, no. 20, pp. 30-39.

Macfie, Brian. *"Load Research at NJNG"* - Working Paper 632." American Gas Association (1996).

Macfie, Brian, et. al., *Gas Load Forecasting Methods*, Statistics and Load Forecast Committee - American Gas Association (1995). Chapters 1, 2, 4, 10, and 12.

Macfie, Brian. *"Converting Cycle Sales to Calendar Sales"* - Working Paper 584." American Gas Association (1993).

Macfie, Brian. *"Estimating Base Load Heating with Regression Analysis"* - Working Paper 504." American Gas Association (1988).

## **PAPERS UNDER REVIEW**

Macfie, Brian P. *"Arizona Economic Development and the Service Sector,"* (Contemporary Economic Policy, Western Economics Association International).

Macfie, Brian P. *"Does Preserve Creation of Existing Open Space Increase the Value of Proximate Land in Arizona? A Hedonic Model."* (Southwestern Economic Review)

Macfie, Brian P. *"Revised Gasoline Price Elasticity in AZ and the U.S."* (Southwestern Economic Review)

## **WORKING PAPERS IN PROGRESS**

Macfie, Brian P. *"Utility Price Deregulation and Arizona Industrial Development."*

Macfie, Brian P. *"Manufacturing Productivity in the Southwest."*

Macfie, Brian P. *"Developing Arizona's High Technology Economy "*

## **CONFERENCE PRESENTATIONS**

“Arizona Economic Development and the Service Sector,” Western Economic Association International 83<sup>rd</sup> Annual Conference, Honolulu, Hawaii, July 2008.

“Brain Drain and Arizona’s High Technology Economy: A Gravity Model Approach,” Decision Science Institute 38<sup>th</sup> Annual Conference, San Antonio, Texas, November 2007

“Arizona Economic Development and the Service Sector Linkage,” Decision Science Institute 37<sup>th</sup> Annual Conference, Phoenix, AZ: November 2006.

“Energy Use and Economic Development in Arizona,” Western Economic Association International 81<sup>st</sup> Annual Conference, San Diego, CA: June 2006.

## **PROFESIONAL MEMBERSHIPS**

Omicron Delta Epsilon

Western Economic Association International (WEAI)

American Economic Association

Southwestern Society of Economists

Network of Border Economists

National Association of Business Economists

## **UNIVERSITY PUBLIC SERVICE**

Goodyear Economic Development Commission (2006-2011)

I represented Arizona State University as an economic affairs guest speaker for “Voice of Arizona” talk show on Air American 1480 AM – Phoenix. Topics included future gasoline prices and proposed minimum wage legislation (2008-2009).

## **PUBLIC OFFICE**

I served as a Commissioner for the Brick Township Municipal Utility Authority (1994-2002) and directed the implementation of a consumption driven water/sewer rate in 1998. In addition, I served as chair for the development of the new billion gallon Brick Reservoir (completed in 2004).

## **PRIVATE CONSULTING EXPERIENCE**

- As an independent subcontractor, I provided statistical and econometric consulting services for established consulting firms toward the following forensic damage claim projects. Typically this support is provided during the winter and summer breaks. I do not provide direct testimony. As such, as a shadow analyst, at no time is my employment at Arizona State University referenced. (Note: in order to protect client confidentiality; only the general geographic location, industry, and annual project dates are indicated).

- 2005 - 2008: Lancaster Consulting - Phoenix, AZ

I critiqued the flaws in an expert's opinion as to the impact a public condemnation had on vacant land price in the east Phoenix metro area. The results were rendered statistically insignificant as a result of severe Positive Autocorrelation that was not corrected. In response, I developed an alternative hedonic model designed to decompose the price of vacant land into its constituent characteristics. The model rendered estimates of the contributory value of each characteristic as to the effect of vacant land price before and after the condemnation.

- 2005: Lancaster Consulting - Phoenix, AZ

I critiqued the flaws in an expert's opinion as to the trend of large (over 100 acres) unimproved vacant land tract sales in west Phoenix. I suggested that the  $R^2$  of 61% was compromised by Negative Autocorrelation (evidenced by the DW statistic of 2.7) as well as evidence of heteroscedasticity based on Goldfeld-Quandt test.

- 2006: Lancaster Consulting - Phoenix, AZ

In response to a copyright damage claim in the internet advertising industry, I prepared a series of means tests to support the hypothesis that an alleged copyright infringement was not statistically conclusive.

- 2007: LECG Consulting - Phoenix, AZ

For an acquisition in the computer software industry, I prepared a short-term time-series revenue forecast analysis after the firm in question was no longer a going concern. The time-series revenue data was decomposed into its constituent seasonal, trend, cyclical and erratic components using the commonly accepted Center Ratio-to-Moving-Average method. I then projected the seasonal and trend components combined out 18 months.

- 2008: LECG Consulting - Phoenix, AZ

I critiqued the flaws in an expert's econometric opinion as to the methodology estimating projected "drop" revenues for a casino blackjack game. I developed an alternative regression model to better predict these revenues.

- 2009: LECG Consulting - Phoenix, AZ

For a revenue damage claim in the (CAD) computer software industry, I developed a Spline regression model to projected revenues before and after the damage event date. I also critiqued the flaws in an expert's alternative model which essentially suffered severe multicollinearity resulting from collinear slope dummy variables and also inappropriately applied a Joint F-test to support their conclusion.

- 2010 - 2013: LECG Consulting - Phoenix, AZ

I prepared a detailed 70 variable econometric model to estimate lost revenues due to a service disruption damage claim for major airline.

- 2010: LECG Consulting - Phoenix, AZ

I critiqued the flaws in an expert's Logit model to counter a damage claim in the music game industry. My main conclusion was variables of the model exhibited severe multicollinearity such that the accuracy of coefficients were compromised.

- 2010: LECG Consulting - Phoenix, AZ

I critiqued the flaws in an expert's econometric opinion of damage in a computer software case and developed several alternative regressions models to estimate fixed and variable costs in order to estimates alleged earnings margins associated with a damage claim.

- 2011: Berkley Research Group (BRG) - Phoenix, AZ

I provided statistical support defending a previously submitted series of Traditional Time Series models delineating the difference between domestic and international sales in a damage claim suit.

- 2012: Berkley Research Group (BRG) - Phoenix, AZ

I provided statistical support defending a previously submitted regression and Traditional Time Series models used to measure an alleged confidentiality damage suit for a national senior sales manager. I also critiqued the flaws in an expert's opinion of damage through the use of an inappropriate means test.

- 2013: Berkley Research Group (BRG) - Phoenix, AZ

The (above) 2010 airline service disruption damage claim went to trial. I provided additional support for the 70 variable econometric model and prepped the lead consultant for trial testimony. I also critiqued the flaws in an expert's opinion of the model.

- 2014: Berkley Research Group (BRG) - Phoenix, AZ

As an advisor to the judge on royalty matters related to a children's musical sitcom, I critiqued the econometric opinions for the Plaintiff and Defendant.

- 2015: Berkley Research Group (BRG) - Phoenix, AZ

(As a continuation of summer 2013 project), I wrote direct testimony for damage claim suit due to service disruption of major airline

- 2016: Berkley Research Group (BRG) - Phoenix, AZ

Critiqued the flaws in an expert's opinion in a damage suit as to whether the launch date matter for a music video game.

- 2017: Berkley Research Group (BRG) - Phoenix, AZ

Retained to perform an economic and fiscal impact study of the proposed 25,000 acre investment in west Buckeye, AZ. The report included the evaluation of mixed-use projects and shift-share analysis.

## **PROFESSIONAL EMPLOYMENT EXPERIENCE**

New Jersey Transit – Newark, N.J.

1999 - 2003

Manager, Trends and Forecasts

- Developed a monthly rail and bus ridership forecast model by zone
- Published “*Rail Price Elasticity*” to support 2002 fare restructuring
- Published “*Hedonic Analysis of Hudson-Bergen Light Rail Line on Areal Residential Property Values*” in support of the Hudson-Bergen Light Rail extension.
- Analyzed ridership trends based on economic conditions for senior management
- Authored NJT Monthly Economic Review

New Jersey Natural Gas Company – Wall Township, N.J.

1984 - 1999

Corporate Economist

- Developed regression model procedure to properly convert cycle sales to calendarized basis
- Developed spreadsheet linear programming model to dispatch short-term gas purchases
- Spoke at conferences throughout the United States and Canada on various forecast issues
- Developed load research program using real time telemeter data to study usage characteristics
- Represented New Jersey Natural Gas as member of American Gas Association Rate Committee and American Gas Association Forecasting Committee
- Edited American Gas Association publication entitled A.G.A. Load Forecasting Manual
- Prepared cost of service studies and rate design in support of base rate cases
- Presented short term demand forecasts and additional rate case direct testimony before the NJ Board of Public Utilities in the following rate case proceedings:

*GR98080910* New Jersey Natural Gas LPGA Rate Case (9/10/98) – Conservation Analysis

*GR97090660* New Jersey Natural Gas LPGA Rate Case (9/19/97) – Elasticity of Demand

*GT96070524* NJNJ Base Rate Case (1/8/96) – Class of Customer Load Research

*GR95030520* NJNG LPGA Rate Case (9/15/95) – Weather Normalization Clause

*GT94040094* New Jersey Natural Gas Base Rate Case (10/27/94) – Cost of Service Study

*GR93040330* NJNG LPGA Rate Case (9/15/93) – Long Term Demand Forecast

*GT92020235* New Jersey Natural Gas Base Rate Case (5/22/92) – Cost of Service Study

New Jersey Department of Commerce, Office of Economic Research – Trenton, N.J.  
1981 - 1984  
Research Economist II

- Developed Corporate Income Tax Revenue Forecast Model
- Collaborated on the New Jersey Econometric Model Joint Task Force
- Analyzed legislation and prepared development policy recommendations for Commissioner's Office
- Authored New Jersey Mid-year and Annual Economic Review for NJ Council of Economic Advisors
- Published "The *Economic Impact of the NJ Urban Tax Abatement Program*".
- Published "The *Development Impact of NJ Urban Enterprise Zone Legislation*".
- Published "Impact of Rent Control on Housing Supply".
- Published "Impact of High Energy Prices on New Jersey Employment".
- Published "Impact of Business Taxes on Regional Economic Growth".
- Published "Impact of New Jersey Minimum Wage Legislation on Unemployment".
- Published "The *Economic Impact of Developing Hi-tech Industry in New Jersey*".

New Jersey Department of Commerce, NJ Economic Development Authority – Trenton, N.J.  
1977 - 1981  
Labor Market Analyst III

- Prepared legislative policy recommendations for NJEDA Executive Director's Office
- Developed the NJEDA Industrial Revenue Bond Geographic Targeting Program proposal
- Published "The *Fabricated Metals Industry in New Jersey*".
- Published "Ocean County Areal Economic Profile".
- Published "Middlesex County Areal Economic Profile".

