
Experience

State of Alaska Department of Labor, August 2001 to present Economist. I assist the State Demographer in preparing population estimates and projections for the State of Alaska and its subdivisions. In addition to economic modeling, I write programs, primarily using R and SPSS, to automate our data collection. ¹

State of Alaska Department of Labor, February 2001 to August 2001 Economist. I worked with the Department's Occupational Database. I was responsible for designing and implementing quality control methods. I was able to show that our data was of good quality, and able to improve that quality by detecting improperly reported occupations. I was also able to make progress in getting one of our largest miss-filers to provide a cross-reference which fixed roughly half of our missing data.

Purdue University, September '97 to February 2001: Half-time assistantship, and full-time student. This financed my education and supported my family.

Spring '00 to February 2001: Research assistant for Economics Department. My duties included the following projects in the R programming language: I implemented Guerre, Perrigne and Vuong's estimator of auction values. I implemented a non-parametric test of independence. I implemented a simulated maximum likelihood method for the multinomial probit.

June '99 to Spring '00: Teaching assistant for Department of Mathematics. I conduct two recitation sections per week for MATH 165, a first-semester calculus course.

September '98 to June '99: Teaching assistant. I independently wrote a syllabus, wrote a series of lectures, and taught ECON 252, introductory macroeconomics. I had full responsibility for two sections of over fifty students during the Spring semester, and one section during the Summer semester. I wrote, administered and graded their tests, and assigned their grades for the course. I received a Certificate of Recognition for Teaching Excellence, for my work during the Summer semester.

May '98 to September '98: Research assistant. I have obtained subjects for economics experiments, conducted experiments to test aspects of economic theories, and analyzed data using Excel and SAS.

September '97 to May '98: Teaching assistant, as above.

University of Alaska, Fairbanks, January '96 to May '97: Full-time student and half-time research assistant. I collected several macro-economic data sets and analyzed them using GAUSS.

Tanana Valley Farmers Market, Fall '94 to May '97: Volunteer treasurer and board member of the non-profit Tanana Valley Farmers Market corporation. I ran our payroll and helped our board get the corporate charter reorganized to comply with state law. I ensured that we had adequate and lowest-cost insurance coverage.

North Mail, Inc.: June '94 to January '96. Mail-handling equipment technician. I was the only employee in the Fairbanks office of this Anchorage based company. Since my supervisor was 400 miles away, I had to be a reliable self-starter. I was responsible for maintaining postage meters, and several large inserter systems.

Education

Degrees

- B.S. Electrical Engineering, May 1985, University of Alaska, Fairbanks
- M.S. Statistics, May 2000, Purdue University
- ABD Economics, Purdue University

Purdue University, Fall '99 through Fall 2000. I completed a Master of Science in Applied Statistics, graduated in May '00, with 3.6 GPA. My course work covered multivariate statistical models, stochastic processes, theory and applications of linear models, generalized linear models, time series and numerical methods such as bootstrapping and Monte Carlo.

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Purdue University, Fall '97 to Spring '99. GPA 3.5 Completed all requirements, except dissertation, of the Ph.D. program in economics. My course work included nonlinear programming, dynamic optimization, and² micro- and macro-economic theory. I have studied the application of mathematical analysis and probability theory to economic problems. I have taken courses devoted to dynamic optimization, probability theory, mathematical statistics, linear and non-linear regression, and Bayesian statistics, all at the Masters or Ph.D. level.

University of Alaska, Fairbanks, Spring '96 to Spring '97. GPA 4.0 First year of the natural resource economics Master of Science program. My course work included linear algebra, regression analysis, and mathematical statistics at the undergraduate level, and regression analysis and economic theory at the graduate level. I left to enter the Ph.D. program in economics at Purdue.

University of Alaska, Fairbanks, Fall '81 to Spring '85. GPA 3.1 I earned a Bachelor of Science in electrical engineering. My courses included three years of calculus and applied analysis. I studied the solution of boundary value problems in partial differential equations, and Fourier analysis and integral transforms. I also studied vector calculus and network analysis. I worked part-time during the school year and full time during summers.

Abilities

Computer: I have written programs to find numeric solutions to engineering problems in Fortran on VAX/VMS and MS-DOS systems. I am proficient in S-Plus, SPSS and SAS programming, having used them for on the job and for class work. I have used Fortran, Maple, Mathematica, Matlab, S-PLUS, R, Python, Lisp, c, LIMDEP, and GAUSS. I am familiar with Microsoft Excel and Word, and the usual Unix productivity tools such as L^AT_EX and emacs. I can administer a Unix system.

People: I can write and deliver a lecture or report on a technical subject. I can speak to a group, with or without preparation.

Writing: Examples are available upon request. See <http://labor.state.ak.us/trends/jul03.pdf> pages 3-8.

Papers

Seasonality: the Ups and Downs of the Alaskan Labor Market This article provides a definition of seasonality for occupations, and measures the seasonality of many Alaskan occupations. This definition is novel, and useful in assessing the effectiveness of training programs. In the July 2003 issue of Trends, available at <http://labor.state.ak.us/trends/jul03.pdf>

Employment Outlook I am coauthor of this article presenting predictions of employment trends in Alaska for 2000 through 2010. My contribution was primarily doing the actual projections. Appeared in the May 2002 issue of Trends, which may be found at <http://labor.state.ak.us/trends/may02.pdf>

Electrical Power Engineering for Economists This brief paper attempts to provide some very basic background for power flow calculations, and to explain how power flows on one line can affect power flows on another.

Using Kolmogorov Tests with Mixed Distributions I show, by Monte Carlo experiment, that the Kolmogorov test is generally more powerful than the χ^2 test for certain mixed distributions, and uniformly more powerful against certain local alternative hypotheses.

A Brief Introduction to Maxima A rudimentary introduction to the installation and use of the Maxima symbolic algebra program. It was included with Maxima versions 5.6 through 5.8.

Awards and Grants

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Purdue Research Foundation Grant I was awarded a Purdue Research Foundation Research Grant for the proposal entitled *Power Markets and Pricing Reserve Capacity*. This provided my support for the 2001–2002 school year.

Certificate for Teaching Excellence October 1999. This award recognizes outstanding classroom teaching. There were two of these awards given each semester, to the best of the approximately 40 graduate students teaching in the Krannert School of Business.
