Division of Statistics
Northern Illinois University
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1425 W Licoln Hwy
DeKalb, IL 60115

644 Woodbine Ave
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BÁRBARA PATRICIA GONZÁLEZ

EDUCATION

Ph.D.	Cornell University (Statistics) 2002
M.S.	Cornell University (Statistics) 2001
Licentiate	Simón Bolívar University, Caracas, Venezuela (Mathematics, *Summa Cum Laude*) 1998

ACADEMIC EXPERIENCE

Associate Professor

2017-Present	Division of Statistics. Northern Illinois University
2015-2017	Department of Mathematics. Hofstra University
2011-2015	Department of Mathematics and Actuarial Science. Roosevelt University

Assistant Professor

2006-2011	Department of Mathematics and Actuarial Science. Roosevelt University
2002-2006	Department of Mathematics. University of Louisiana at Lafayette

Instructor

1998	Department of Scientific Computing and Statistics. Simón Bolívar University, Caracas, Venezuela
1996	Workshop on Teaching Methods. Grupo Escalera. Simón Bolívar University, Caracas, Venezuela

Research Assistant

1999-2002	Department of Operations Research and Industrial Engineering. Cornell University

Teaching Assistant

1999-2002	Department of Operations Research and Industrial Engineering. Cornell University
1998	Department of Biometrics. Cornell University
1997	Department of Scientific Computing and Statistics. Simón Bolívar University, Caracas, Venezuela
1994-1997	Department of Pure and Applied Mathematics. Simón Bolívar University, Caracas, Venezuela

High-School Teacher

1997-1998	Mathematics. Colegio Caniguá, Caracas, Venezuela

ADMINISTRATIVE EXPERIENCE

Chair

2019-Present Department of Statistics and Actuarial Science. Northern Illinois University

Director

2017-2019 Division of Statistics. Northern Illinois University

I effectively proposed and executed a plan to create a new Department of Actuarial and Statistical Sciences at Northern Illinois University. This plan included the creation of two new majors (BS in Actuarial Science and BS in Statstics) and the establishment of bylaws and tenure/promotion guidelines.

Chair

2011-2015 Department of Mathematics and Actuarial Science. Roosevelt University

I effectively organized and implemented an undergraduate research program in the department, recruiting both faculty and students, and providing mentorship for faculty. By 2015, about half of the tenure-

track/tenured faculty worked on research with undergraduate students on a regular basis. I revamped the Actuarial Science program, including the hiring of a fully credentialed actuary as well as a financial mathematics expert, which led to a 50% increase in program enrollments. I successfully negotiated for an increased tutoring budget and a new math lab, leading to a higher retention rate across the university. I effectively involved all faculty members in the department in assessment activities, which led to a great environment for discussion and collaboration on the scholarship of teaching and learning.

Assistant Chair

2010-2011 Department of Mathematics and Actuarial Science. Roosevelt University

REFEREED PAPERS AND PUBLICATIONS

1. **B. González-Arévalo**, S. Nagel and A. Rodríguez (2019): A New Method to Generate Uniform Random Variates on the Unit Spherical Shell in R^d, accepted for publication (resubmitted, pending final review) in the *Journal of Simulation*
2. **B. González-Arévalo** and W. Huang (2019): Modeling the 2008 Subprime Mortgage Crisis, Chapter 8, Mathematical Association of America (MAA) volume titled "Mathematics and Social Justice: Resources for the College Classroom," book in production
3. **B. González-Arévalo** and W. Urbina (2019): Using Integral Calculus to estimate income inequality by the use of the Gini Coefficient, Chapter 9, Mathematical Association of America (MAA) volume titled "Mathematics and Social Justice: Perspectives and Resources for the College Classroom," book in production
4. S. Kirsch, D.L. Meryash and **B. González-Arévalo** (2018): Determinants of Parent Satisfaction with Emergency or Urgent Care When the Patient Has Autism, *Journal of Developmental & Behavioral Pediatrics*, Vol. 39 , Issue 5:365–375, https://journals.lww.com/jrnldbp/Abstract/2018/06000/Determinants_of_Parent_Satisfaction_with_Emergency.3.aspx
5. S. Cohen, **B. González-Arévalo** and M. Pivarski (2017): Students as Partners in Curricular Design: Creation of Student-Generated Calculus Projects, *Science Education and Civic Engagement: An International Journal* 9:1 Winter 2017:10-19
6. S. Cohen, **B. González-Arévalo** and M. Pivarski (2016): A Departmental Change: Professional Development Through Curricular Innovation, Mathematics Education: A Spectrum of Work in Mathematical Sciences Departments, Ed: Dewar, Jacqueline, Hsu, Pao-sheng, Pollatsek, Harriet, Association for Women in Mathematics Series, Vol. 7, Springer, New York, 213-226
7. **B. González-Arévalo** and N. Pal (2013): A Note on Parameter Estimation Under a t-Model, *Sankhya B: The Indian Journal of Statistics* 1-17, http://dx.doi.org/10.1007/s13571-013-0075-2
8. **B. González-Arévalo** and M. Pivarski (2013): The Real-World Connection: Incorporating Semester-Long Projects into Calculus II, *Science Education and Civic Engagement: An International Journal* 5:1 Winter 2013:17-24
9. **B. González-Arévalo** and J. Roy (2010): Simulating a Poisson Cluster Process for Internet Traffic Packet Arrivals, *Computer Communications* 33:612-618
10. G. Faÿ, **B. González-Arévalo**, T. Mikosch, and G. Samorodnitsky (2006): Modeling Teletraffic Arrivals by a Poisson Cluster Process, *Queueing Systems* 54:121-140
11. **B. González-Arévalo**, F. Hernández-Campos, J.S. Marron, and C. Park (2006): Visualization Challenges in Internet Traffic Research, Graphics of Large Data Sets: Visualizing a Million, Ed: A. Unwin, M. Theus, and H. Hofmann, Springer, New York, 203-226
12. **B. González-Arévalo** (2004): Performance of a Leaky Bucket System with Long-Range Dependent Input Traffic, *Queueing Systems* 46:435-455
13. **B. González-Arévalo** and G. Samorodnitsky (2003): Buffer Content of a Leaky Bucket System with Long-Range Dependent Input Traffic, *Journal of Applied Probability* 40:581-601
14. **B. González-Arévalo** and J.L. Palacios (1999): Expected hitting times for random walks on weak products of graphs, *Statistics and Probability Letters* 43:33-39

15. E. González, **B. González-Arévalo**, M. Velasco and G. Gianetto (1997): Evaluation of the university activity in the light of the results of the Program of Encouragement to the Investigator (PEI) and Program of Promotion of the Investigator (PPI): Comparison in the Central University of Venezuela (UCV), *Tribuna del Investigador* Vol. 4 No.2:112-132

NON-REFEREED PUBLICATIONS

16. C. Evins, **B. González-Arévalo** and M. Williams (2016): Teaching Manual: College Algebra – Modeling the City, Engaging Mathematics Project, http://engagingmathematics.ipower.com/college-algebra-modeling-the-city/
17. **B. González-Arévalo** and M. Pivarski (2010): Integrating Civic Engagement into an Integral Calculus Course, *Proceedings of the Roosevelt University Mini-Conference on Teaching* 7:16-18
18. **B. González-Arévalo** and M. Williams (2009): Integrating Online Homework in Face-to-Face Lectures, *Proceedings of the Roosevelt University Mini-Conference on Teaching* 6:13-14

WORK IN PROGRESS

19. With María Egleé Pérez (University of Puerto Rico) and Luis Raul Pericchi (University of Puerto Rico): Practical Recommendations for p-Values
20. With Nan Shen, Luis Raul Pericchi (University of Puerto Rico) and Tatiana Dmitrieva: Comparison of Bayesian and Frequentist Tail Estimators
21. With Nan Shen and Luis Raul Pericchi (University of Puerto Rico): Bayesian Model Selection: A New Approach to Computing the Effective Sample Size for BIC
22. With Luis Raul Pericchi (University of Puerto Rico): Bootstrapping in Bayesian Statistics

SCHOLARLY CONFERENCES

"Pros and cons of changing the default significance threshold from 0.05 to 0.005"

- Invited talk, VI Bayesian Congress of Latin Americal (VI COBAL), Pontificia Universidad Católica del Perú, Lima, Perú, June 2019

"The Long Range Dependence of Gena"

- Invited talk, Heavy Tails and Long Range Dependence, A Workshop in Honor of Gennady Samorodnitsky's 60th Birthday, University of Paris IV, Paris, France, June 2017

"Engaging Mathematics: Creating a National Community of Practice"

- Poster with Frank Wattenberg (United States Military Academy), Victor Padrón (Normandale Community College), Cathy Evins (Roosevelt University), John Nardo, Lynn Gieger (Oglethorpe University), Rikki Wagstrom, Cindy Kaus (Metropolitan State University), Mangala Kothar (LaGuardia Community College). MAA Poster Session on Projects Supported by the NSF Division of Undergraduate Education, Joint Mathematics Meetings, Atlanta, GA, January 2017

"Factors Associated with Parent Satisfaction with Emergency Visits When the Patient Has Autism"

- Poster with Sarah Kirsch and David L. Meryash; Society for Developmental and Behavioral Pediatrics Annual Meeting, Savannah, GA, September 2016
- Poster with Sarah Kirsch and David L. Meryash; International Meeting for Autism Research, Baltimore Convention Center, Baltimore, MD, May 2016

"SENCERizing Your Department: A Workshop for Departmental Leaders "

- Contributed breakout session with Melanie Pivarski and Steve Cohen; SENCER Summer Institute, Roosevelt University, Chicago, IL, July 2016

"Teaching with Projects and Technology"

- Invited panelist, New York Metro NExT Annual Meeting, Vaughn College of Aeronautics and Technology, East Elmhurst, NY, May 2016

"Students as Partners in Curricular Design"

- Seminar talk, Hofstra University, Hempstead, NY, November 2015

"Mathematics and Civic Engagement"

- Invited plenary follow-up session with Victor Donnay and the Engaging Mathematics partners; SENCER Summer Institute, Worcester Polytechnic Institute, Worcester, MA, July 2015.

"Sustainability Issues in the Mathematics and Science Classroom"

- Invited breakout session with Victor Donnay, Martina Bode and Cathy Evins; Chicago Symposium Series - Excellence in Teaching Mathematics and Science: Research and Practice, Northeastern Illinois University, Chicago, IL, March 2015.

"Students as Partners: Creating Student-Generated Calculus II Projects"

- Contributed breakout session with Melanie Pivarski and Steve Cohen; Chicago Symposium Series - Excellence in Teaching Mathematics and Science: Research and Practice, Roosevelt University, Chicago, IL, January 2015.

"SENCER Mathematics Across the Curriculum"

- Invited work session with Cindy Kaus, Anthony Dunlop, Victor Padron, Cathy Evins, Lynn Gieger, John Nardo, John Zobitz, Frank Wattenberg and Mangala Kothari; SENCER Summer Institute, University of North Carolina, Asheville, NC, August 2014.

"Creation of Student Generated Calculus II Based Projects and Their Implementation"

- Contributed talk with Melanie Pivarski, SENCER Summer Institute, University of North Carolina, Asheville, NC, August 2014.

"Engaging Mathematics at Roosevelt University, College Algebra: Modeling the City"

- Poster with Cathy Evins, SENCER Summer Institute, University of North Carolina, Asheville, NC, August 2014.

"A New Method to Generate Uniform Random Variates on the Unit Spheric Shell in R^d"

- Invited talk, Frontier Probability Days, University of Arizona, Tucson, AZ, May 2014.

"A Note on Parameter Estimation Under a *t*-Model"

- Contributed talk, Southeastern Spring Sectional Meeting, University of Tennessee, Knoxville, TN, March 2014.

"Students as Partners"

- Workshop with Melanie Pivarski and Ellen Goldey (Wofford College), SENCER Summer Institute, Santa Clara, CA, August 2013.

"SENCERizing the Mathematics Curriculum at Roosevelt University"

- Invited poster with Cathy Evins and Melanie Pivarski, Washington Symposium and Capitol Hill Poster Session, Washington, DC, March 2013.

"Engaging Students in Real-World Math Projects"

- Breakout session with Melanie Pivarski, Chicago Symposium Series, Excellence in Teaching Mathematics and Science: Research and Practice, Loyola University, Chicago, IL, March 2013.

"Civic Engagement in the Calculus Classroom"

- Contributed talk with Melanie Pivarski. Sustainability, Quantitative Reasoning and the Liberal Arts: Enhancing Student Success Through Civic Engagement, A SENCER Midwest Regional Symposium, Beloit, WI. November 2012.

"Incorporating Students into Curriculum Building"

- Poster with Melanie Pivarski. Posterfest session at Mathfest 2012, Madison, WI, August 2012.

"Using Projects to Enhance Content in Math Courses"

- Contributed Concurrent Session. Science Education for New Civic Engagement (SENCER) Summer Institute 2011. Butler University, Indianapolis, Indiana. July 2011

"Integrating Civic Engagement in an Integral Calculus Course"

- Poster. SENCER Summer Institute 2010. University of North Carolina, Asheville, North Carolina. July-August 2010
- Contributed Talk. Seventh Roosevelt University Mini-Conference on Teaching. Roosevelt University, Chicago, Illinois. April 2010
- Contributed Talk. 2010 Joint MAA/AMS Mathematics Meeting. Washington, DC. January 2010

"Integrating Online Homework in Face-to-Face Lectures"

- Contributed Talk. Sixth Roosevelt University Mini-Conference on Teaching. Roosevelt University, Chicago, Illinois. April 2009

"Modeling Teletraffic Arrivals by a Poisson Cluster Process"

- Invited Talk. Twelfth Annual International Conference on Statistics, Combinatorics, Mathematics and Applications. Auburn University, Auburn, Georgia. December 2005
- Invited Talk. Carleton Applied Probability Day. Carleton University, Ottawa, Canada. September 2005

"Workshop on Probabilistic Models in Telecommunications"

- Invited Talk. Department of Computer Science. Simón Bolívar University, Caracas, Venezuela. July 2005

"Visualization Challenges in Internet Traffic Research"

- Invited Talk. A Mathematical Perspective on Queueing and Teletraffic Modeling. Workshop at the Mittag-Leffler Institute, Djursholm, Sweden. October 2004

"Biased Sampling from Heavy Tailed Data"

- Contributed Talk. Network Modeling for the Internet Closing Workshop. Statistical and Applied Mathematical Sciences Institute (SAMSI), Triangle Research Park, North Carolina. June 2004

"Statistics Seminar on Internet Modeling"

- Invited Talk. Department of Scientific Computing and Statistics. Simón Bolívar University, Caracas, Venezuela. May 2004

"Brief Introduction to Long-Range Dependence"

- Contributed Talk. Mathematical Association of America (MAA) LA/MS Section Meeting. Hammond, Louisiana. March 2004

"Probability Seminar Series on Long-Range Dependence"

- Invited Talks. Department of Mathematics. University of Louisiana at Lafayette, Lafayette, Louisiana. Spring 2003

"Performance of a Leaky Bucket System with Long-Range Dependent Input Traffic"

- Invited Talk. Fall Meeting of the Louisiana Chapter of the American Statistical Association. New Orleans, Louisiana. November 2002
- Invited Talk. International Seminar "Applied Stochastic Models and Information Processes". Institute for Information Transmission Problems, Petrozavodsk, Russia. September 2002

WORKSHOPS AND OTHER CONFERENCES

- Chicago Symposium Series, Excellence in Teaching Mathematics and Science: Research and Practice, Chicago, IL, Spring 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2018, 2019
- 2018 Joint MAA/AMS Mathematics Meeting. San Diego, CA, January 2018
- Values-based Academic Leadership: A Retreat For Agents of Institutional Change and Transformation, National Center for Science and Civic Engagement, Chicago, IL, September 2017
- Metro New York Mathematical Association of America Sectional Meeting, Spring 2017
- Science Education for New Civic Engagement (SENCER) Summer Institute 2006, 2009, 2010, 2011, 2013, 2014, 2015, 2016
- Conference on New Developments in Probability, Northwestern University, Chicago, IL, May 2016
- Midwest Probability Colloquium. Northwestern University. Evanston, IL, October 2010, 2011, 2012, 2013.
- Illinois State Mathematical Association of America Sectional Meeting, Spring 2010, 2011, 2012, 2013
- Sustainability, Quantitative Reasoning and the Liberal Arts: Enhancing Student Success Through Civic Engagement, A SENCER Midwest Regional Symposium, Beloit, WI, November 2012
- Council of Colleges of Arts and Sciences (CCAS) Seminar for Department Chairs. St. Louis, MO, July 2011
- 2009 Joint MAA/AMS Mathematics Meeting. Washington, DC, January 2009

- Fifth Annual Meeting of the Math Tech Pioneers. Western Kentucky University at Glasgow, Glasgow, KY, October 2008
- Fifth Roosevelt University Mini-Conference on Teaching. Roosevelt University, Chicago, IL, April 2008
- Mathematics and Teaching Conference. Harold Washington College, Chicago, IL, November 2007
- Pearson Education Course Redesign Workshop. Tucson, AZ, October 2007
- Research Program on Network Modeling for the Internet. Statistical and Applied Mathematical Sciences Institute (SAMSI), Triangle Research Park, NC, March 2004
- Conference and Workshop on Stochastic Networks. University of Wisconsin, Madison, WI, June 2000
- Study Group in Industrial Mathematics. Center for Statistics and Mathematical Software (CESMa). Simón Bolívar University, Caracas, Venezuela, 1996

GRANTS, AWARDS AND DISTINCTIONS

- Partner Faculty. National Science Foundation (NSF) Grant: Engaging Mathematics. Hofstra University, Hempstead, NY and Roosevelt University, Chicago, IL. 2014-2017 ($550,000)
- SENCER Leadership Fellow, 2012-2015
- Partner Faculty. Chicago Community Trust Grant: RU Teacher Preparation Redesign. Roosevelt University, Chicago, IL. 2014-2015
- Summer Research Grant. Roosevelt University, Chicago, IL, Summer 2014
- William E. Bennett Award for Extraordinary Contributions to Citizen Science, Team Member, March 2012
- Co-Principal Investigator (Co-PI). NSF/ Science Education for New Civic Engagement (SENCER) Implementation Award. Roosevelt University, Chicago, Illinois. 2011-2013 ($3,000)
- Principal Investigator (PI). NSF/SENCER Implementation Award. Roosevelt University, Chicago, Illinois. 2010-2012 ($3,000)
- Member of the Internal Advisory Board and Mathematics Program Coordinator. NSF Division of Undergraduate Education (DUE) Science, Technology and Mathematics Talent Expansion Program (STEP) Grant. Roosevelt University, Chicago, Illinois. 2008-2013 ($2M)
- Grant to participate in the Fall 2004 Mittag-Leffler Institute Research Program: Queueing and Teletraffic Theory. Mittag-Leffler Institute, Djursholm, Sweden. October-November 2004
- PI. Board of Regents Support Fund (BoRSF) Grant. University of Louisiana at Lafayette, Lafayette, Louisiana. 2004-2007 ($129,957)
- PI. Summer Research Award. University of Louisiana at Lafayette, Lafayette, Louisiana. 2003
- Award from the Center for Statistics and Computational Mathematics (CESMa) to the best graduating student during the school year 1997-1998 in the Licentiate of Mathematics, majoring in Statistics and Computational Mathematics. Simón Bolívar University, Caracas, Venezuela. 1998
- Medal Order José Félix Ribas in its Third Class for Student Performance. Republic of Venezuela. 1997
- Mention of Honor for the Undergraduate Thesis: Hitting times for random walks on weak products of graphs. Simón Bolívar University, Caracas, Venezuela. 1997
- Award to Excellence Maraven-Simón Bolívar University. Caracas, Venezuela. 1997

- Award from the Center for Statistics and Computational Mathematics (CESMa) to the best second year student during the school year 1994-1995 in the Licentiate of Mathematics, majoring in Statistics and Computational Mathematics. Simón Bolívar University. Caracas, Venezuela. 1995
- Award to Excellence Maraven-Simón Bolívar University. Caracas, Venezuela. 1995

OTHER PROFESSIONAL ACTIVITIES

- Member. Planning Board, Chicago Symposium. 2014-Present
- Mentor. Association for Women in Mathematics Mentor Network. 2012-Present
- Local Conference Organizer. Chicago Symposium Series: Excellence in Teaching Mathematics and Science: Research and Practice. Northern Illinois University, DeKalb, IL. Spring 2019
- Mentor. Latina SCIGIRLS summer camp. June 2018
- Reviewer for the following journals (2009-Present): *Journal of Statistical Planning an Inference*, *INFORMS Journal on Computing*, *Computer Communications*, *Fundamenta Informaticae*, *Journal of Applied Statistics, PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies)*
- Local Conference Organizer. Chicago Symposium Series: Excellence in Teaching Mathematics and Science: Research and Practice. Roosevelt University, Chicago, IL. Spring 2015
- Local Conference Organizer. International Association of Black Actuaries Annual Boot Camp. Roosevelt University, Chicago, IL. Summer 2013
- Former President (2005-2006) and Vice-President (2004-2005) of the Louisiana Chapter of the American Statistical Association (ASA), member of the Mathematical Association of America (MAA), and the American Association of University Professors (AAUP)
- Procter and Gamble Latin America, Department of Market Research and Department of Sales. Caracas, Venezuela. 1998
- Summer Internship at the Superintendencia de Cibernética en Gas, CORPOVEN S.A. (Oil Company). Caracas, Venezuela. 1996

UNIVERSITY SERVICE

- Member, Personnel Committee, Division of Statistics, Northern Illinois University, Fall 2017-Present
- Member, Data Science Initiative, Northern Illinois University, 2017-Present
- Faculty Co-Advisor, Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS) NIU Chapter, Northern Illinois University, 2017-Present
- Member, Honors Committee, Northern Illinois University, Fall 2018-Spring 2021
- Member, Search Committee for Assistant Professor position in Actuarial Science, Northern Illinois University, Fall 2018-Spring 2019
- Member, Selection Committee, Forward, Together Forward Scholarship, Northern Illinois University, Fall 2018-Spring 2019
- Volunteer, Taft Retreat for incoming University Honors students, Northern Illinois University, August 2018
- Dean's Designee, Doctoral Dissertation Defense of Shawn Osell, Department of Economics, Northern Illinois University, March 2018

- Member of the inaugural advisory board of the new Center for "Race", Culture and Social Justice, Hofstra University, December 2016-August 2017
- AAUP Unit Representative, Natural Sciences and Math/HCLAS, Hofstra University, December 2016-August 2017
- Member, Internationalization Subcommittee: Institutional Commitment and Administration, Spring 2016-Spring 2017
- Liaison with the Society of Actuaries, Fall 2015-Spring 2017
- Chair, University Senate, Fall 2014-Spring 2015
- Member, Arts and Sciences Council Executive Committee, Fall 2014-Spring 2015
- Senator, University Senate. Fall 2008-Spring 2009, Fall 2011-Spring 2015
- Member, Planning and Budget Committee, Fall 2011-Summer 2014
- Search Committee for two Non-Tenure Track Positions in Mathematics and Actuarial Science. Department of Mathematics and Actuarial Science, Spring 2014
- Search Committee for Tenure Track Position in Financial Mathematics. Department of Mathematics and Actuarial Science. Spring 2013
- Executive Committee. AAUP Roosevelt Chapter. Spring 2011
- Took a group of about ten students to the 2011 Annual Meeting of the Illinois Section of the MAA (ISMAA). North Central College, Naperville, Illinois. April 2011
- Retreat Committee. Department of Mathematics and Actuarial Science. Spring 2011
- Developmental Mathematics Redesign Committee. Department of Mathematics and Actuarial Science. Spring 2011
- Co-Organizer of the Math x-Position. December 2010
- Member of the Graduate Council's Scholarship Committee. Fall 2010-Spring 2011
- Graduate Coordinator. Department of Mathematics and Actuarial Science. Fall 2009-Summer 2011
- Member of the Graduate Council. Fall 2009-Summer 2011
- Curriculum Developer and Instructor. Summer Camp for the NSF Division of Undergraduate Education (DUE) Science, Technology and Mathematics Talent Expansion Program (STEP) Grant. Summer 2009, Summer 2010, Summer 2011
- Co-Organizer of the Math & Science Research Symposium. April 2010
- Took a group of eight students to the 2010 Annual Meeting of the ISMAA. Augustana College, Rock Island, Illinois. April 2010
- Chair, Search Committee for Tenure Track Position in Mathematics. Department of Mathematics and Actuarial Science. Spring 2010
- Search Committee for Tenure Track Position in Mathematics. Department of Mathematics and Actuarial Science. Spring 2009
- Search Committee for Tenure Track Position in Financial Mathematics. Department of Mathematics and Actuarial Science. Spring 2009
- Faculty Advisor. Actuarial Science Club. Spring 2008

- College of Arts and Sciences Curriculum Committee. Fall 2007-Spring 2009
- Mathematics Instructor and Curriculum Developer. Taste of Science and Math (summer camp for sophomores). June-July 2008
- Mathematics/Statistics Instructor. RU Glamorous C.S.I. Summer Camp for Middle School Girls. July 2007, July 2008
- Search Committee for Non-Tenure Track Position. Department of Mathematics and Actuarial Science. Spring 2008
- Member of the delegation representing Roosevelt University. 5th Annual Illinois Legislative Latino Caucus Foundation Conference. Rosemont, Illinois. December 2007
- Mathematics of Sudoku. Girls Enjoying Math and Science's (GEMS) visit to Roosevelt University. November 2006
- Modeling the Internet. Science Day. December 2006

RESEARCH SUPERVISED

- Nan Shen, "Bayesian Model Selection: A New Approach to Computing the Effective Sample Size for BIC" (Fall 2018-Present)
- Tatiana Dmitrieva, "Comparison of the Bayesian and Frequentist Tail Estimators" (Spring 2018)
- Stephanie Nagel, "Comparison of Methods to Generate Uniform Random Variates on the Unit Spherical Shell in R^d" (2015-2017)
- Brandon Richman, Honor's Thesis: "Baseball: A Game of Statistics" (Spring 2014)
- Elizabeth Staszel, Honor's Thesis: "The Role of Health Insurance in a Person's Life" (Fall 2013)
- Carina Balan, Honor's Thesis: "It's a Math Math Math Math World" (Spring 2013)
- Dana Alexander (with M. Pivarski), "Head Injury Criterion" (Summer 2012) Work presented at the 22nd Argonne Symposium for Undergraduates in STEM, Math x-Position
- Anthony Lisenko (with M. Pivarski), "Temperature Variations" (Summer 2012)
- Jeff Tweitmeyer (with M. Pivarski), "Keppler's Laws" (Summer 2012)
- Tyrone Palmer (with M. Pivarski), "Measuring Educational Inequities" (Summer 2012)
- Carina Balan (with M. Pivarski), "Baseball Statistics" (Summer 2012)
- John Croghan (with M. Pivarski), "Football Statistics" (Summer 2012)
- Carina Balan (with M. Pivarski), "Use of Projects in Calculus Courses" (Fall 2010- Summer 2011); Work presented at the 21st Argonne Symposium for Undergraduates in STEM, Math x-Position
- Jonathan Castaldo (with M. Pivarski), "Use of Projects in Calculus Courses" (Summer 2011)); Work presented at the 21st Argonne Symposium for Undergraduates in STEM, Math x-Position
- Jeremy Rizert (with M. Pivarski), "Use of Projects in Calculus Courses" (Fall 2010- Spring 2011)
- Cherise Johnson (with M. Pivarski), "Use of Qualitative Methods in Math Education Research." (Fall 2010-Spring 2011)
- Brett Shudak, Honor's Thesis: "What statistics influence the amount of salary paid in baseball?" (2010)

- Zachary Rosenberg, Honor's Thesis: "Fibonacci Price Retracement/Extension in Equity Market Analysis" (2010)
- Matthew Peregrin, Honor's Thesis: "The Chicago Cubs: A Regression Analysis of Player Salaries from 1999 to 2008" (2008)

GRADUATE COMMITTEES - MEMBER

- Dissertations: Tatiana Dmitrieva, Philippe Devoedo, Mahmoud Shehadeh
- Thesis: Robert Jones
- Student Examinations: Aaron Killeen, Alexander Sarver, Yuqing Huang

COURSES TAUGHT
Northern Illinois University (400 level is upper division undergraduate, 500 level is graduate)
Stat 647: Design and Analysis of Experiments (Spring 2019)

Hofstra University (100 level is lower and upper division undergraduate)
Csc 143O: Computational Models in Applied Probability (Fall 2016)
Csc 143Q: Simulation Methods (Spring 2017)
Math 006A: Real Numbers and College Algebra (Fall 2015)
Math 030A: Math Excursions (Fall 2016)
Math 045: Elementary Set Theory, Logic and Probability (Spring 2017, Spring 2016, Fall 2015)
Math 135A: Linear Algebra (Spring 2017)
Math 147/Csc 102/Engg 101: Numerical Methods (Spring 2016)
Math 185: Mathematics Internship (Spring 2017)
Math 190: Departmental Honors (Spring 2016)
Math 199F: Finance Math (Fall 2016)

Roosevelt University (300 level is upper division undergraduate, 400 level is graduate)
Acp 101: First Year Seminar (Fall 2012)
Math 095/Math 096: Developmental Mathematics (Fall 2013, Spring 2014)
Math 116: Finite Mathematics (Spring 2008)
Math 121: College Algebra (Spring 2011, Fall 2010)
Math 217/Econ 234: Introduction to Probability and Statistics (Fall 2012, Spring 2012, Fall 2008, Summer 2008, Spring 2008)
Math 231: Calculus I (Honors, Fall 2008)
Math 232: Calculus II (Spring 2011, Honors, Spring 2010, Spring 2009)
Math/Acsc 269: Financial Mathematics (Fall 2007, Fall 2006)
Math/Acsc 300: Linear Algebra (Fall 2007, Summer 2007, Fall 2006)
Acsc 347/Math 447: Probability and Statistics I (Fall 2010)
Acsc 349/Math 449: Regression and Time Series (Spring 2010)
Acsc 357/Math 357/Math 457: Anova and Experimental Desgin (Fall 2013)
Math/Acsc 367: Financial Mathematics (Fall 2011)
Acsc 369/Math 469: Actuarial Mathematics I (Fall 2008, Fall 2007)
Acsc 370/Math 470: Actuarial Mathematics II (Spring 2013, Spring 2009, Spring 2008)
Acsc 380/Math 480: Actuarial Science Seminar (Spring 2011, Spring 2010, Spring 2009)
Acsc 380P/Math 480P: Actuarial Science Seminar: Exam P/1 (Spring 2012)
Math 3/489: Special Topics: Baseball Statistics (Summer 2008, Summer 2007)
Acsc 395: Independent Study (Spring 2010)
Hon 399: Honors Senior Thesis (Spring 2013, Spring 2010, Spring 2008)

Math 495: Independent Study (Fall 2012, Spring 2013)

University of Louisiana at Lafayette (400 level is upper division undergraduate, 500 level is graduate)
Stat 325: Introduction to Statistics
Stat 425-426: Basic Theory of Statistics I and II
Stat 521: Applied Regression Analysis and Experimental Design
Stat 522: Experimental Design
Stat 597: Special Topics: An Introduction to Generalized Linear Models