James G. Bridgeman, http://	//www.math.uconn.edu/~bridgeman	, <u>bridgeman@math.uconn.edu</u>
26 Millers Pond Road Quake	r Hill CT 06375 // 860-442-5560(H); 86	60-416-6509(C)

	TI T TO A COLUMN TO THE COLUMN
2001 - 2019	University of Connecticut, Storrs, CT
2016 - 2019	Associate Professor Emeritus; participates in Analysis/Probability, Actuarial, & Financial Math Seminars
2008 - 2019	Janet & Mark L. Goldenson Center for Actuarial Research, Board Member
2007 - 2016	Actuarial Science Program, Associate Director for Graduate Programs
2002 - 2016	Applied Financial Mathematics Program, Director
2001 - 2016	Department of Mathematics, Associate Professor in Residence
2001	ING Group, Atlanta GA/Hartford CT
	Latin America Operations, Chief Financial Officer and Chief Actuary; ING-AII, Chief Financial Officer
1973 - 2000	Aetna Inc and affiliated companies, Hartford CT
1992 - 2000	Aetna International Inc (non-US insurance and pensions), Chief Financial Officer (2000) and Chief Actuary
	Aetna Life Insurance Company of America (Taiwan), <i>Appointed Actuary</i> (appointment stayed in effect thru
	2006 in renamed ING Life Insurance Company of America)
	Aetna Life and Casualty Limited (Bermuda), <i>Appointed Actuary</i>
1991 – 1992	
	Aetna Health Plans, <i>Head of Data Structure</i> (combined indemnity and managed care information systems)
1989 – 1990	Partners National Health Plans, Northeast Regional Vice President (HMO and PPO operations)
1987 – 1988	Aetna Healthcare Systems, Inc, <i>President and COO</i> (small HMO chain)
	Aetna Casualty and Surety Co (commercial property and casualty insurance),
1984 - 1987	Strategic Business Unit Head (small commercial segment)
	Mechanization Effort Co-Head (commercial accounts)
1982 - 1983	Large Account Underwriting Head (field commercial segment)
	Aetna Life & Casualty, Inc (parent holding company)
1980 - 1982	Director of Investor Relations
1978 - 1980	Corporate Actuarial Staff
1973 - 1977	Aetna Life Insurance Company and Aetna Variable Annuity Life Insurance Company
	Actuarial Student (variable annuities, group health, and group pensions)
1972	Webster Academy, Webster MA, Assistant Principal, Mathematics Teacher, Basketball Coach
1971 – 1972	Kingsley Hall School, Westbrook CT, Director of Studies, Mathematics Teacher
Research and Pro	
2016	"A Dual Version of Asset-Liability Risk Modeling" University of St. Thomas Center for Applied Math.
2015	"Toward Formal Dualities in Asset-Liability Risk Modeling", Actuarial Research Conference, 2015
2015	"Structure of the CAPM Covariance Matrix", ARCH 2015.1
2014	"Interest Rate Modeling With Random Regimes" Actuaries Club of Hartford/Springfield invited talk
2014	
2014	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1
2013	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1
2013 2012	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1
2013 2012 2009	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009
2013 2012 2009 2008	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1
2013 2012 2009	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios",
2013 2012 2009 2008 2007	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1
2013 2012 2009 2008	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium
2013 2012 2009 2008 2007	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1
2013 2012 2009 2008 2007	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium
2013 2012 2009 2008 2007 2002 1998	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries
2013 2012 2009 2008 2007 2002 1998 2011 – 2019	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries  Resource and Environmental Working Group member, International Actuarial Association
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries  Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries  Member, American Academy of Actuaries
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries  Member, American Academy of Actuaries  Research to support American Council of Life Insurance committees developing the dynamic valuation
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries  Member, American Academy of Actuaries
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979 Education:	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries  Member, American Academy of Actuaries  Member, American Academy of Actuaries  Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979 Education: 2009	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries  Member, American Academy of Actuaries  Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979 Education: 2009 1973 – 1979	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association  Project Oversight Group member for seven Society of Actuaries research projects  Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada,  Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan  Editorial Board, Transactions of the Society of Actuaries  Member, American Academy of Actuaries  Member, American Academy of Actuaries  Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst  Society of Actuaries, Fellow
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979 Education: 2009 1973 – 1979 1969 – 1971	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Fellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979 Education: 2009 1973 – 1979 1969 – 1971 1969	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1  "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1  "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1  "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009  "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1  "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1  "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium  "Stationary Immunization Theory", Transactions of the 26th International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Fellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation Yale, M.A., Mathematics
2013 2012 2009 2008 2007 2002 1998 2011 – 2019 2011 – 2019 1979 – 2016 1980 – 1990 1980 1978 – 1979 Education: 2009 1973 – 1979 1969 – 1971 1969 1967	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Fellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation
2013 2012 2009 2008 2008 2007  2002 1998 2011 – 2019 2011 – 2019 1979 – 2016  1980 – 1990 1980 1978 – 1979  Education: 2009 1973 – 1979 1969 – 1971 1969 1967 Community:	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Fellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation Yale, M.A., Mathematics Notre Dame, A.B., Mathematics, magna cum laude
2013 2012 2009 2008 2008 2007  2002 1998 2011 – 2019 2011 – 2019 1979 – 2016  1980 – 1990 1980 1978 – 1979  Education: 2009 1973 – 1979 1969 – 1971 1969 1967 Community: 2009 – 2017	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26th International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Fellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation Yale, M.A., Mathematics Notre Dame, A.B., Mathematics, magna cum laude  Real Art Ways, Hartford CT, Board Vice-Chair, Governance Committee, Finance Committee
2013 2012 2009 2008 2008 2007  2002 1998 2011 – 2019 2011 – 2019 1979 – 2016  1980 – 1990 1980 1978 – 1979  Education: 2009 1973 – 1979 1969 – 1971 1969 1967 Community: 2009 – 2017 1980 – 1995	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26th International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Pellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation Yale, M.A., Mathematics Notre Dame, A.B., Mathematics, magna cum laude  Real Art Ways, Hartford CT, Board Vice-Chair, Governance Committee, Finance Committee Greater Hartford Easter Seals Rehab Center, Board Member, Finance Chair
2013 2012 2009 2008 2008 2007  2002 1998 2011 – 2019 2011 – 2019 1979 – 2016  1980 – 1990 1980 1978 – 1979  Education: 2009 1973 – 1979 1969 – 1971 1969 1967 Community: 2009 – 2017 1980 – 1995 1981 – 1987	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26 <sup>th</sup> International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Pellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation Yale, M.A., Mathematics Notre Dame, A.B., Mathematics, magna cum laude  Real Art Ways, Hartford CT, Board Vice-Chair, Governance Committee, Finance Committee Greater Hartford Easter Seals Rehab Center, Board Member, Finance Chair Board of Education, Windsor CT, Member and President (1983 – 1985)
2013 2012 2009 2008 2008 2007  2002 1998 2011 – 2019 2011 – 2019 1979 – 2016  1980 – 1990 1980 1978 – 1979  Education: 2009 1973 – 1979 1969 – 1971 1969 1967 Community: 2009 – 2017 1980 – 1995	"Calibration of a Regime-Switching Interest Rate Model", ARCH 2014.1 "Combinatorics for Moments of a Randomly Stopped Quadratic Variation Process", ARCH 2013.1 "Esscher Approximations for Maximum Likelihood Estimates", ARCH 2012.1 "Effect of Global Warming on Financial Discounting Methodology", Actuarial Research Conference, 2009 "Moments of a Regime-Switching Random Interest Rate Model With Randomized Regimes", ARCH 2008.1 "Random Switching Times Among Randomly Parameterized Regimes of Random Interest Rate Scenarios", ARCH 2007.1 "A Practitioner's Regime-Switching Stochastic Interest Rate Model", 2001 Valuation Actuary Symposium "Stationary Immunization Theory", Transactions of the 26th International Congress of Actuaries Resource and Environmental Working Group member, International Actuarial Association Project Oversight Group member for seven Society of Actuaries research projects Presenter and panelist at actuarial society, academic, and insurance industry forums in the U.S., Canada, Mexico, Brazil, the U.K., India, Malaysia, the Philippines, and Taiwan Editorial Board, Transactions of the Society of Actuaries Member, American Academy of Actuaries Research to support American Council of Life Insurance committees developing the dynamic valuation interest rate proposal adopted by the National Association of Insurance Commissioners in 1980  Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Chartered Enterprise Risk Analyst Society of Actuaries, Pellow Yale, study and research in Mathematics (algebraic topology); passed Ph.D. qualifying exams; no dissertation Yale, M.A., Mathematics Notre Dame, A.B., Mathematics, magna cum laude  Real Art Ways, Hartford CT, Board Vice-Chair, Governance Committee, Finance Committee Greater Hartford Easter Seals Rehab Center, Board Member, Finance Chair