Vita - Toby A. White

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Professional Designations

Fellow of the Society of Actuaries (FSA) – Finance track, January 2000
Chartered Financial Analyst (CFA) – January 2003

Education

University of Washington, Seattle, Washington
Ph.D. in Statistics
Date of Graduation: Fall 2008
Dissertation - *Latent Class Transition Modeling Extensions with Covariates: Application to the U.S. Elderly Chronically Disabled*

University of Iowa, Iowa City, Iowa
M.S. in Statistics and Actuarial Science
Date of Graduation: May 1996

Kalamazoo College, Kalamazoo, Michigan
B.A. in Mathematics and Music
Date of Graduation: June 1994

Budapest Semester in Mathematics, Budapest, Hungary, Fall 1992

Drake University Vita (detailed in upcoming pages)

Teaching
Scholarship
Service
Outreach
Advising/Mentoring

Summary of Teaching

Winner of David Lawrence Outstanding Undergraduate Teaching Award for CBPA, 2012-2013

Fall 2023:
ACTS 131 – Probability

Spring 2023:
ACTS 120 – Interest Theory (UEC Class)
ACTS 140 – Statistics for Risk Modeling (UEC Class)

Fall 2022:
ACTS 050 (2 sections) – Introduction to Actuarial Science
ACTS 120 – Interest Theory (UEC Class)
ACTS 140 – Statistics for Risk Modeling (UEC Class)
FIN 095 – Personal Finance

Spring 2022:
ACTS 131 – Probability
FIN 95 – Personal Finance

Fall 2021:
ACTS 050 (2 sections) – Introduction to Actuarial Science
ACTS 131 – Probability
ACTS 135 – Mathematical Statistics (VEE Course for SOA)

Spring 2021:
ACTS 131 – Probability
FIN 102 (2 sections) – Advanced Corporate Finance

Fall 2020:
ACTS 120 – Interest Theory
FIN 102 – Advanced Corporate Finance

Spring 2020:
ACTS 135 – Mathematical Statistics (VEE Course for SOA)
INS 051 – Principles of Insurance
FIN 95 – Personal Finance

Fall 2019:
MATH 1210 – Statistics for the Life Sciences, Seattle University

Spring 2019:
ACTS 120 – Interest Theory
INS 051 – Principles of Insurance
FIN 198 – Applied Business Analysis (Capstone class for ACTS majors)

Fall 2018:
FIN 102 (2 sections) – Advanced Corporate Finance
ACTS 165 – Short-Term Actuarial Math II (Relates to Exam STAM)

Spring 2018:
ACTS 121 (2 sections) – Introduction to Derivatives
FIN 121 (finance-specific version of ACTS 121, see below)

Fall 2017:
FIN 102 (2 sections) – Advanced Corporate Finance
ACTS 141 – Statistical Modeling

Spring 2017:
ACTS 131 (2 sections) – Probability
FIN 121 (finance-specific version of ACTS 121, see below)
STAT 172 – GLM & Data Mining (completed last 8 weeks of semester)

Fall 2016:
ACTS 141 (2 sections) – Statistical Modeling
ACTS 150 – Life Contingencies I
  -helps prepare students for SOA Exam MLC (along with ACTS 151)

Spring 2016:
FIN 102 (2 sections) – Advanced Corporate Finance
ACTS 141 – Statistical Modeling

Fall 2015:
ACTS 141 (2 sections) – Statistical Modeling
  -helps prepare students for SOA Exam C (along with ACTS 132/160)
FIN 121 (finance-specific version of ACTS 121, see below)

Spring 2015:
FIN 102 (2 sections) – Advanced Corporate Finance
  -VEE Course for Corporate Finance
ACTS 151 – Life Contingencies II
  -helps prepare students for SOA Exam MLC (along with ACTS 150)

Fall 2014:
ACTS 131 (2 sections) – Probability
  -helps prepare students for SOA Exam P
FIN 121 (finance-specific version of ACTS 121, see below)

Spring 2014:
ACTS 131 (2 sections) – Probability
ACTS 132 – Probability II
  -helps prepare students for SOA Exam C (along with ACTS 141/160)

Fall 2013:
ACTS 121 / FIN 121 (2 sections) – Introduction to Derivatives
  -helps prepare students for SOA Exams FM and MFE
ACTS 131 – Probability

Spring 2013:
ACTS 145 (2 sections) – Derivatives Mathematics
  -helps prepare students for SOA Exam MFE

Fall 2012:
ACTS 121 / FIN 121 (2 sections) – Introduction to Derivatives
FIN 150 (now ACTS 145, see above)

Spring 2012:
FIN 193 (2 sections) – Portfolio Management & Investment Analysis
ACTS 140 – Interest Theory (now ACTS 120)
  -helps prepare students for SOA Exam FM

Fall 2011:
FIN 150 (2 sections) – Derivatives Mathematics
FIN 101 – Corporate Finance

Spring 2011:
FIN 101 (2 sections) – Corporate Finance
FIN 150 – Derivatives Mathematics

Fall 2010:
FIN 150 (2 sections) – Derivatives Mathematics
ACTS 140 (2 sections) – Interest Theory

Spring 2010:
FIN 101 (2 sections) – Corporate Finance
ACTS 160 – Credibility and Simulation
-helps prepare students for SOA Exam C (along with ACTS 132/141)

Fall 2009:
FIN 150 (2 sections) – Derivatives Mathematics
ACTS 140 – Interest Theory

Spring 2009:
FIN 101 (2 sections) – Corporate Finance
STAT 131 – Probability (now ACTS 131)

Fall 2008:
FIN 150 (2 sections) – Derivatives Mathematics
ACTS 140 – Interest Theory

Summary of Scholarship

<u>Refereed Scholarship:</u>

- White, Toby, "The Changing of the Guard (from LIBOR to SOFR) and How Both Insurers and Regulators are Responding," *Journal of Insurance Regulation*, 40:5, p.1-29, October 2021.

- Chen, Yiqing, White, Toby, and Yuen, Kam Chuen, "Precise Large Deviations for Aggregate Claims with Arbitrary Dependence Between Claim Sizes and Waiting Times," *Insurance: Mathematics and Economics*, 97, p.1-6, March 2021.

- Senteza, Jimmy, Suh, Inchul, and White, Toby, "Under Armour: Will a Fallen Titan Recover?" *International Journal of Teaching and Case Studies*, 11:4, p.285-301, February 2021.

- White, Toby, "The Impact of Recent Market Volatility on Financial and Retirement Planning," *Society of Actuaries Call for Essays: The Impact of COVID-19 on Aging & Retirement,* published on www.soa.org, August 2020.

- Senteza, Jimmy, Suh, Inchul, and White, Toby, "Battling the Oil Death Spiral: ConocoPhillips v. Antero Resources," *Southeast Case Research Journal,* 16:2, p.95-116, Fall 2019.

- Long, Rick, Senteza, Jimmy, Suh, Inchul, and White, Toby, "J.C. Penney Corporation: Reinventing Retail," *Journal of Finance Case Research,* 17:1, 2018.

- White, Toby, *Measures of Investment Risk, Monte Carlo Simulation, and Empirical Evidence on the Efficient Markets Hypothesis,* Study Note IFM-21-18 for SOA Exam IFM (Investment and Financial Markets), Society of Actuaries: Schaumburg, IL, 2018.

- Rubin, Larry, Crowe, Kevin, Fisher, Adam, Ghaznawi, Omar, McCoach, Richard, Narva, Rachel, Schaulewicz, David, Sullivan, Tom, and White, Toby, "An Overview of the U.S. LTC Insurance Market: The Economic Need for LTC Insurance, the History of LTC Regulation & Taxation, and the Development of LTC Product Design Features," *SOA: Managing the Impact of Long-Term Care Needs and Expense on Retirement Security Monograph*, December 2014.

- Root, Thomas, Senteza, Jimmy, and White, Toby, "Characterizing Financial Risk Tolerance by Nationality: A Comparison of the U.S. and Uganda," *Journal of Business and Behavioral Sciences,* 26:2, p.156-173, Summer 2014.

- Gardner, Lisa, and White, Toby, "Managing Investment, Underwriting, and Production Risks from Drought-Related Agriculturual Exposures," *CAS eForum*, Winter 2014 (1st place winner ($700) in CAS Climate Change Essay Competition)

- White, Toby, and Erosheva, Elena, "Using Group-Based Latent Class Transition Models to Analyze Chronic Disability Data from the National Long-Term Care Survey 1984-2004," *Statistics in Medicine,* 32:20, p.3569-3589, September 2013.
- Gardner, Lisa, Santos, Christian, and White, Toby, "Actuarial Science Summer Camp for Women and Minorities," *Risk Management and Insurance Review*, (to be published in 16:2, p.1-13, Fall 2013).
- Long, Rick, Suh, Inchul, and White, Toby, "Netflix: DVD-by-Mail or Online Streaming?", *International Research Journal of Applied Finance*: *Case Studies*, June 2013
- White, Toby, "Recent Volatility in U.S. Equity Markets: A Review of Key Contributing Factors and Relationships," *Drake Management Review*, 2:2, p.8-31, April 2013.
- Bale, Jill, Senteza, Jimmy, and White, Toby, "A Model for Running an Undergraduate Business-Focused Case Competition," *International Research Journal of Applied Finance: Case Studies*, January 2013.
- Gardner, Lisa, and White, Toby, "Drake University's Actuarial Science and Risk Management and Insurance Programs", *CPCU eJournal*, July 2012.
- White, Toby (author), and Klugman, Stuart (editor), *Understanding Actuarial Practice*, Investments Section, Chapters 5-11 (p.55-168), Society of Actuaries: Schaumburg, IL, 2012.
- Erosheva, Elena, and White, Toby, "Issues in two-phase chronic disability measurement: An example of the National Long Term Care Survey", *Journal of Official Statistics*, 26:2, p.317-339, June 2010.

In-process Scholarship:

- Senteza, Jimmy, and White, Toby. "Extreme Volatility in U.S. Equity Markets 2000-2019: An Empirical Analysis," Target Journal: *Quarterly Journal of Finance*.

- White, Toby. "Actuarial Functions and Structural Roles within Large U.S. Insurance Companies," Working Paper, Journal TBA.

Non-refereed Scholarship:

- *Exam MFE (Mathematics of Financial Engineering) Study Manual* Released – November 15, 2009 (Marketed by ACE Study Manuals, to be distributed by Actuarial Bookstore, 130 pages in length)

Recent Presentations:

-Chair for Invited Speaker Session, Act. Research Conf. (2023)
-Introduced Featured Speaker at Banquet, Act. Research Conf. (2023)
-Iowa Actuaries Club, *LIBOR v. SOFR (Interest Rate Benchmarks): Changing of the Guard*, March 2020
-Seattle University Math Colloquium, *How to Become an Actuary (and Trends in Actuarial Careers)*, October 2019
-Drake CBPA Research Seminar, *Idiosyncratic Volatility and Extreme Price Movements in U.S. Equity Markets*, April 2016
-Iowa Actuaries Club, *Can Health Care Co-Operatives Survive Now?*, February 2016 (co-presented with Lisa Gardner)
-Drake CBPA Research Seminar, *Characterizing Financial Risk Tolerance by Nationality: A Comparison of the U.S. and Uganda*, April 2013
-Drake CBPA Research Forum: Poster Session, *Recent Volatility in U.S. Equity Markets: A Review of Key Contributing Factors and Relationships*, April 2012
-Iowa Actuaries Club, *Extreme Volatility in U.S. Equity Markets and Associated Applications with Derivatives*, March 2012
-Society of Actuaries Education & Examination Central Review, *Overview of Investments Section (from upcoming Fundamentals of Actuarial Practice* text), July 2011

- Drake CBPA Research Seminar, *Best Practices for Running and Undergraduate Finance Case Competition*, November 2010
- Financial Education Association Annual Conference, San Antonio, Texas, *Model for an Undergraduate Finance Case Competition*, October 2010
    -Chair: ERP, Project Management, & Business Applications
- Drake Actuarial Student Society Orientation Meeting , *Drake Actuarial Program / SOA Exam Overview*, September2010
- University of Iowa Statistics Research Seminar, Iowa City, Iowa *Group-Based Extensions to Latent Class Transition Models with Applications to Old-Age Disability Survey Data*, February 2010
- Drake CBPA Research Seminar, *Group-Based Latent Class Transition Models: an Example from the NLTCS*, December 2009
-National Long-Term Care Survey Research Conference, Bethesda, Maryland, *Group-Based Latent Class Transition Models for the Elderly U.S. Chronically Disabled*, May 2009
-National Long-Term Care Survey Research Colloquium, Bethesda, Maryland, *Issues and Models in Survey Measurement of Chronic Disability*, May 2009
- ENAR International Biometrics Society, Spring Meeting, Washington D.C., *Latent Class Transition Models for the Elderly U.S. Chronically Disabled*, March 2008
- University Nevada-Las Vegas, Monthly Research Colloquium, Las Vegas, *Latent Class Transition Models for the Elderly U.S. Chronically Disabled*, February 2008
-University of Washington, Interdisciplinary Geriatric Research Forum, Seattle, *Latent Class Transition Models for the Elderly U.S. Chronically Disabled*, September 2007
-University of Washington, ACMS Undergraduate Weekly Seminar, Seattle, *Becoming an Actuary and Associated Applications in Probability and Finance*, May 2007, February 2007, November 2006, May 2006, May 2005, January 2003
-University of Washington, CSSS Graduate Student Seminar, Seattle, *Latent Class Transition Models with Covariates*, January 2007

Summary of Service

Chair of Drake Actuarial Science, Insurance, and Risk Management Department (Fall 2017-Spring 2023)
Member of Dean's Faculty Cabinet (Fall 2017-Spring 2023)
Accreditation Actuary for Drake/SOA UEC Program (2022–2023)
Author of Initial Application for Drake/SOA UEC Program
Author of Application for Drake/SOA CAE Renewal (2022-2023)
Faculty Judge/Mentor for Brooks Finance Case Competition (2023)
Faculty Judge for Insurance Disruption Days Competition (2022-2023)
Member of Committee for Possible Bermuda Transfer Program (2023)
Author of Application for CAS University Award (2022)
Member of Drake CBPA Research Committee (2021-Fall 2022)
Member of Search Committee ('22) ACTS Program Director
Member of Search Committee ('22) for non-tenure-track ACTS professor
Member of Search Committee ('21) for non-tenure-track ACTS professor
Member of Search Committee ('20) for non-tenure-track ACTS professor
Reviewer of 2 Chapters in new Actuarial Science text on Data Analytics
Participant in Summer Orientation for New Act.Sci. Students, 2020
Frequent Participant in events catered toward high-school perspectives interested in actuarial science (including panel discussions, Presidential Scholarship presentations, welcoming receptions, and office visits), 2018
Chair of Drake CBPA Undergraduate Curriculum Redesign Committee (Fall 2017-Summer 2019)
Member of Drake CBPA Promotion & Tenure Committee (2015-2017)
Designer of New Courses in Drake ACTS Curriculum (161/165/190), where 161/165 correspond to STM, and 190 is a Capstone (2016)
Writer of Foreword for Two Actuarial Science Books (Ju and Hung)
Faculty Mentor for Drake Actuarial Science Newsletter (Fall 2015-…)
Reviewer of Liang (Jason) Hong's Research Portfolio for Potential Tenure at Robert Morris University
Assignor of Courses to ACTS faculty (Fall 2014-Spring 2015)
Planner/Leader of ACTS departmental meetings (Fall 2014–Spring 2015)
Member of Undergraduate Curriculum Committee, CBPA (2014-present)
Member of Strategic Planning Committee, CBPA (2014)
Member of Search Committee ('16) for tenure-track ACTS professor
Member of Search Committee ('15) for ACTS Program Director
Member of Search Committee ('14) for 2 tenure-track ACTS professors
Member of Search Committee ('14) for 2 tenure-track ACTS professors

Member of Search Committee (’13) for tenure-track ACTS professor
BUS 004 Writing Assessor: (September 2013 - present)
Meet with High School (Actuarial) Perspectives – Summers 2013-2014
BUS 001 Writing Assessor: (September 2012 - present)
Travelers Actuarial Case Competition Faculty Liaison
(October 2012 – present)
BUS 003 Writing Assessor: (September 2010 - present)
CBPA Brooks Weekend Competition Co-Leader for third straight year:
(September 2009 – present)
Drake Actuarial Science Summer Camp (2011-2012)
Weekly Current Events Summary: (August 2010 - present)
Drake Racquetball Club: Faculty Sponsor: (August 2010 - present)
Drake Bowling Club: Faculty Sponsor: (August 2011 - present)
Drake Actuarial Student Society: Faculty Advisor: (2010-present)
Drake Actuarial Science Website: (January 2010)
Instructor for (Free) Drake Exam-Prep Seminar for SOA Exam MFE
Member of Search Committee (’09) for tenure-track actuarial professor
Member of Search Committee (’08) for tenure-track actuarial professor
Member of Search Committee (’08) for contract-based statistics professor
Author and Reviewer for Drake Actuarial Science Newsletter
Administrator of Drake Actuarial Communication, which includes
maintaining SOA student exam records + sending out DASS e-mails
Preparer of Evidence to Support Drake becoming a CAE (Center of
Actuarial Excellence); the on-site visit was completed October 2009
Sponsor and Selector of CFA Level I Scholarships for Drake students
Reviewer for about 12 Journal Articles (relating to my Ph.D. Research)

Summary of Outreach

Member of SOA Committee to Review Exam FM (2022 - present)
Member of Exam FAM Examination Committee (2022 - present)
Writer of CAS Exam Questions for Coaching Actuaries (2023)
General Officer for Exam IFM (2019-2022)
Regular Writer of Exam FM (Fin.Math) Exam Questions (2010 - present)
Regular Writer of Exam P (Probability) Exam Questions (2010 - present)
Member of SOA ASA Curriculum Redesign Committee (2021)
Writer of Revised Learning Objectives for SOA Exam P (2021-2022)
Consultant for Multi-State Lottery Association (Re: Lotto Fraud), 2018

Author of Study Note for SOA Exam IFM (Investments and Financial Markets) Re: Risk Measures, Simulation, and Market Efficiency, 2018
Reviewer for the Actuarial Science Program at University of St. Thomas
Member of Steering Committee for ASA Curriculum Redesign (2016-…)
Chair of Exam MFE/IFM Curriculum Committee (2014-2019)
Vice-Chair of Exam MFE (Mathematics of Financial Engineering) Committee (2013-2015); Member (2010-2012)
Member of Exam FM Curriculum Committee (2014)
Working with PwC on Analysis of LTC Insurance Data (2014-2015)
Member of Hickman Scholar Committee (for SOA) (2012-2015)
Consultant / Expert Witness for Attorney Chuck Crook (April 2012 – September 2012)
Instructor for River Glen Wealth Management Seminar on Risk Planning and Insurance: (September 2009 – December 2011)
Statistics Consultant for Research done by Professor Steve Scullen: (September 2009)
Chair of Assessment Development for Society of Actuaries FAP Exam Fundamentals of Actuarial Practice, (July 2009 – January 2010)
Curriculum Developer for River Glen Wealth Management Seminar on Risk Planning and Insurance, (Fall 2009)
Vice-Chair for Society of Actuaries Course 7 (Modeling), (2007-2008)
Question Writer/Grader for SOA Course 7 (Modeling), (2005-2006)
Writer of Sample Exam Derivatives Questions for SOA Exam FM, (2009)
Reviewer of Financial Math Questions for SOA Exam MFE, (2008)
Stalla/Becker Instructor for CFA Level 1 Review Classes, (2009)
Member of Drake Actuarial Science Advisory Board, (2009-present)
Lead instructor for following Chicago Actuarial Association courses:
-Actuarial Exam Seminar for Courses 2/FM (see above), (2001-2008)
-Actuarial Exam Seminar for Course 4, (2001-2003)

Summary of Advising/Mentoring

Advising:

I currently advise about 50 upper level actuarial majors

I also receive office visits and e-mails from both current Drake actuarial students and prospective students considering applying to our program

I have written letters of recommendation and acted as employment sponsor for numerous Drake actuarial students

Mentoring:

During the winter/spring semester 2011, I served as a mentor for Natasha Fee, as she worked through the SOA FAP computer modules; She received credit for an 'independent study,' per my supervision

During the winter/spring semester 2010, I served as a mentor for Molly Lundberg, as she worked through the SOA FAP computer modules; She received credit for an 'independent study,' per my supervision