# Seth J. Chandler

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### Summary

### Current Employment

Foundation Professor of Law, University of Houston Law Center

### **■** Former Employment

Munger Tolles & Olson (1986-90); Williams & Connolly (1984-86); Judge Edward R. Becker, Third Circuit Court of Appeals (1983-84) Lecturer, Professional Science Masters Program, Rice University (2015-2017)

### Education

Harvard Law School, J.D. 1983, magna cum laude; Princeton University (Woodrow Wilson School of Public and International Affairs), A.B. 1979, summa cum laude

### Teaching

Typical Courses: Insurance Law, Contracts, Constitutional Law, Life & Health Insurance, Analytic Methods for Lawyers 1995 Enron Teaching Award, University of Houston Law Center 2022 University Teaching Award Finalist, Technical Innovation

#### **Education**

### Degrees

Harvard Law School, J.D., 1983, magna cum laude

Princeton University (Woodrow Wilson School of Public and International Affairs), A.B., 1979, summa cum laude

#### Certificates

Harvard Graduate School of Education, Management Development Program, 2003

# **Law School Employment**

Law Foundation Professor of Law, University of Houston Law Center, January 1, 2006 - present

Director, Health Law & Policy Institute, September 2014 - 2015

Co-Director, Health Law & Policy Institute, May 2004 - 2010

Vice Dean, University of Houston Law Center, June 2004 - Dec. 31, 2005

Associate Dean for Academic Affairs, University of Houston Law Center, May 2002 - June 2004

Professor of Law, University of Houston Law Center, 2002-present

Associate Professor of Law, University of Houston Law Center, 1990-2002

# **Major Publications**

Medicare for All: The Need for a Long Approach, 20 Hous. J. Health L. & Pol'y 1 (2020-2021)("65-page Foreword to issue on Medicare For All. "The inescapable fact that must be recognized about Medicare for All is that it will be incredibly expensive for the federal government and, derivatively, the American taxpayer.")

Regulation By Calculator: Experience Under the Affordable Care Act, 2016 Mich. St. L. Rev. 465 (2016) (critiques the Actuarial Value Calculator, an Excel spreadsheet that serves as a regulation under the Affordable Care Act)

Introduction, 51 Hous. L. Rev. 1017 (2014) (Forward to an issue discussing the Affordable Care Act)

The Architecture of Contemporary Healthcare Reform and Effective Marginal Tax Rates, critical assessment of the effect on effective marginal tax rates of income-dependent subsidies under the Patient Protection and Affordable Care Act, 29 Miss. C. L. Rev. 335 (2010)

Long Term Care: The Next Healthcare Frontier, describing issues arising in regulating public and private long term care insurance in light of 19 Annals Health L. 19 (2010)

A Genetically Modified Liability Insurance Contract, uses "genetic programming" and other mathematical techniques to show how insurers and courts could construct a better liability insurance contract by paying greater attention to statistical characteristics of lawsuits that befall the insured and by constructing a somewhat more complex duty to settle. 13 Conn. Ins. L.J. 203 (2007)

The Insurance Industry, in the International Encyclopedia of Social Science (2d ed. 2007)

Children and Insurance, in The Child: An Encyclopedic Companion (University of Chicago Press, 2009)

Restricted Non - Cooperative Games, in 4488 Lecture Notes in Computer Science 170 (Yong Shi, et. al. eds., 2007) (7th International Conference in Computational Science. Beijing)

The Network Structure of Supreme Court Jurisprudence, in Applied Mathematica: Proceedings of the 7th International Mathematica Symposium (August 2005) (ISBN 1-57955-050-9) (discussed in The Wisdom of Hercules, The Economist, August 27, 2005, and available at http://www.economist.com/-science/PrinterFriendly.cfm?Story\_ID=4316174) (a revised version is available in 10 The Mathematica Journal 501 (2007))

GCANS: Global Cellular Automaton Networks, in Proceedings of the 6th International Mathematica Symposium (August 2004)

Simpler Games: Using Cellular Automata to Model Social Interaction, in Challenging the Boundaries of Symbolic Computation: Proceedings of the 5th International Mathematica Symposium (July 2003), (Peter Mitic et. al., eds., 2003) (ISBN 1-86094-363-2)

Visualizing Adverse Selection: An Economic Approach to the Law of Insurance Underwriting, 8 Conn. Ins. L.J. 435 (2002)

Foreword, Children's Health: A Time for Optimism?, 1 Hous. J. Health L. & Pol'y 1 (2001) (co-authored with Mary Anne Bobinski)

Foggy Games and the Structure of Legal Rules, in Symbolic Computation: New Horizons: Proceedings of the Fourth International Mathematica Symposium (Yoshihiko Tazawa, et. al., eds., 2001) (ISBN 4-501-73020-X C3041)

Behavior and Learning Under Law: Automata Containing Evolutionary Algorithms, 8 The Mathematica Journal 301 (2001) (co-authored with Christian J. Jacob and revising our Automata Containing Evolutionary Algorithms: Behavior and Learning Under Law, in Proceedings of the Third International Mathematica Symposium (1999), available at http://www.risc.uni-linz.ac.at/conferences/summer99/ims99)

Insurance Regulation, in 3 The International Encyclopedia of Law and Economics 837 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000)

Automata Containing Evolutionary Algorithms: Behavior and Learning Under Law, in Proceedings of the Third International *Mathematica* Symposium (1999), available at http://www.risc.uni-linz.ac.at/conferences/summer99/ims99

Modeling Law: Using Cellular Automata to Study Legal Regulation of Conflicting Land Use, in Innovations in Mathematics: Proceedings of the Second International Mathematica Symposium (1997) (ISBN 9525153029)

The Interaction of the Tort System and Liability Insurance Regulation, 2 U. Conn. Ins. L.J. 91 (1996)

Visualizing Moral Hazard, 1 U. Conn. Ins. L.J. 97 (1995)

Reconsidering The Duty to Settle, 42 Drake L. Rev. 741 (1993)

Note, Removing Books From School Libraries, 96 Harv. L. Rev. 151 (1983)

### ■ Video Scholarship

Creator of 56 YouTube Videos spanning over 40 hours in support of course Analytic Methods for Lawyers (topics covered include statistics, machine learning, visualization, lawsuit analysis). Videos created since 2021. Available at https://www.youtube.com/channel/UCtW11UuJslYOFy6Rb3IFgbQ

### **Recent Service**

### Law Center

Chair, Grievance Committee (2021 - present)

Member, Executive Committee (2020-2022)

Chair, Promotion and Tenure / Continuing Employment Agreements Committee (2011 - 2020)

Co-chair, Strategic Planning Committee (2013-14)

Chair, Online Education Committee (2014 - 16) (helped bring \$100,000 grant to Law Center to develop online education)

Faculty Appointments Committee (2005 - 2007)

Curriculum Committee (1999-2002)

### University-Wide

University Grievance Committee (2011 - 2015)

Teaching Excellence Committee (2000-03)

Faculty Senate (1997 - 2000, 2008-2011) (including Legislative and Community Affairs Committee, Planning Committee and Faculty Affairs Committee)

### ■ Community & Miscellaneous

Mentor, Wolfram Summer School (2021) (mentored college faculty on use of Wolfram Language)

Advisor, Computational Thinking Initiative (2017-present) (http://www.computationinitiative.org/)

Testimony, United States Congress: Committee on Oversight and Government Reform (Washington, D.C. 2015)

Visitor, Swansea University, Wales (June 2015) (to establish exchange program with the University of Houston)

Testimony, United States Congress: Committee on Oversight and Government Reform (Washington, D.C. 2014)

Volunteer Photographer, Tahirih Justice Center (2012 - 15)

Testimony, House Insurance Committee (Austin, 2013)

Testimony, Senate Business and Commerce Committee (Austin 2013)

Testimony, Joint Interim Committee to Study Seacoast Territory Insurance (Austin, 2012) Conference Organizer, 11th International Mathematica Symposium (London 2012)

#### Awards

Finalist, University Teaching Excellence Award, Technical Innovation (2021-2022)

Certificate of Excellence, 2015 (awarded by Provost, University of Houston, for extraordinary achievements)

LexisNexis award for use of computer technology in the classroom (2012)

Wolfram Innovator Award (2011) (award to honor individuals who have made significant contributions to their fields through the innovative use of Wolfram technologies).

President's Medal, Loyola University (2006) (highest honor given by Loyola University; awarded for spearheading and implementing efforts to host Loyola (New Orleans) Law School at the University of Houston Law Center for fall 2005 following Hurricane Katrina).

Ethel M. Baker Faculty Award (2004) (Law Center's highest award for community service)

### **Blogs**

- Forbes Magazine, The Apothecary (contributorJanuary 2016-2018)
- acadeathspiral.org (established November 2013)
- catrisk.net (established June, 2012)
- mathlaw.org (established January 2013)

# **Recent Other Publications And Speaking Engagements**

### Legal Publications

Texas Heartbeat Act is waste of state's time, Houston Chronicle op - ed (https://www.houstonchronicle - .com/opinion/outlook/article/Opinion - Texas - Hearbeat - Act - will - fail - for - reasons - 16194835. php, May 24, 2021)

Affordable Care Act Turmoil: Large Losses in the Individual Market Portend an Uncertain Future, Mercatus Center White Paper (with Brian Blase, Edmund Haislmaier and Doug Badger) (available at https://www.mercatus.org/publication/affordable-care-act-turmoil-large-losses-individual-market-portenduncertain-future)

Small Business and Obamacare, published in the National Review Online (available at http://www.nationalreview.com/article/368241/small-businessesand-obamacare-seth-j-chandler)(January 13, 2014)

The Effect of Premium Subsidies and Cost Sharing Reductions Under the Affordable Care Act on Effective Marginal Tax Rates, Harvard Law School (panel on the future of healthcare) (talk cancelled due to Boston Marathon bombing manhunt) (version of talk available at http://mathlaw.org/2013/04/09/exploring-the-effective-marginal-tax-created-by-the-affordable-care-act/)

Machine Learning The Supreme Court, Reinvent Law conference at the Dubai International Financial Center in a conference sponsored by Michigan State

JLink Without Java: Mathematica with .Class, Wolfram Technical Conference (Champaign, IL, October 2012) (interfacing Mathematica with Clojure, Scala and xTend)

### Science/Economics Publications and Presentations

Interactive Economic Models from the Wolfram Demonstrations Project, Journal of Economics Education (Winter, 2008) (with Fiona Maclachlan and W.J.

Exploring Computational Irreducibility and the Predictability of Complex Systems using Mathematica, Proceedings of 2004 New Kind of Science Conference (June 2004) (available as Mathematica notebook at http://www.wolframscience.com/conference/2004/presentations)

### Selected Demonstrations

The list below constitutes a sample of peer reviewed interactive demonstrations of various ideas and data in the fields of law, economics, statistics, linguistics and other miscellaneous areas of interest. These "Demonstrations," produced using Mathematica, have been viewed over one half million times and downloaded for serious examination over 50,000 times. They may be downloaded and examined using the Wolfram CDF Player, a product conceptually similar to Adobe Acrobat, and freely available at http://www.wolfram.com/cdf/. There are also plug-ins available for most web browsers that let you interact with these documents within the web browser.

### ■ Legal/Economic

A Conceptual Model of Lapse Financed Life Insurance, available at http://demonstrations.wolfram.com/AConceptualModelOfLapseFinancedLifeInsurance/ A Minimal Circumcircle Measure of District Compactness, available at http://demonstrations.wolfram.com/AMinimalCircumcircleMeasureOfDistrictCom-

A Spatial Dynamic Jury Model, available at http://demonstrations.wolfram.com/ASpatialDynamicJuryModel/ (featured on the television show Numb3rs (see http://numb3rs.wolfram.com/515/))

Adverse Selection, available at http://demonstrations.wolfram.com/AdverseSelection/

Akrasia, available at http://demonstrations.wolfram.com/Akrasia/

Bilateral Accident Model, available at http://demonstrations.wolfram.com/BilateralAccidentModel/

Binary Election Sequences, available at http://demonstrations.wolfram.com/BinaryElectionSequences/

Collocation By Chi Square, available at http://demonstrations.wolfram.com/CollocationByChiSquare/

Collocation By Symmetric Conditional Probability, available at http://demonstrations.wolfram.com/CollocationBySymmetricConditionalProbability/

Congressional Apportionment Using General Divisor Methods, available at http://demonstrations.wolfram.com/CongressionalApportionmentUsingGeneral-DivisorMethods/

Coordination of Insurance Policies, available at http://demonstrations.wolfram.com/CoordinationOfInsurancePolicies/

Death Penalty Regressions, available at http://demonstrations.wolfram.com/DeathPenaltyRegressions/

Efficient Single Limit Liability Insurance, available at http://demonstrations.wolfram.com/EfficientSingleLimitLiabilityInsurance/

Estimating Insurance Premiums Using Exceedance Data and the Method of Moments, available at http://demonstrations.wolfram.com/EstimatingInsurancePremiumsUsingExceedanceDataAndTheMethodOf/

Estimating Loss Functions Using Exceedance Data And The Method Of Moments, available at http://demonstrations.wolfram.com/EstimatingLossFunctionsUsingExceedanceDataAndTheMethodOfMome/

Evidentiary Uncertainty, available at http://demonstrations.wolfram.com/EvidentiaryUncertainty/

General Divisor Methods, available at http://demonstrations.wolfram.com/GeneralDivisorMethods/

 $Health care\ Reform\ and\ Effective\ Marginal\ Tax\ Rates, available\ at\ http://\ demonstrations.wolfram.com/Health care\ Reform\ And\ Effective\ Marginal\ Tax\ Rates/demonstrations.$ 

Health - Wealth Tradeoffs, available at http://demonstrations.wolfram.com/HealthWealthTradeoffs/

Insurer Assessments with Tax Credits, available at http://demonstrations.wolfram.com/InsurerAssessmentsWithTaxCredits/

Insolvency Setoff, available at http://demonstrations.wolfram.com/InsolvencySetoff/

Insurance And Precautions, available at http://demonstrations.wolfram.com/InsuranceAndPrecautions/

Insurance Disclosures, available at http://demonstrations.wolfram.com/InsuranceDisclosures/

Insurer Ruin, available at http://demonstrations.wolfram.com/InsurerRuin/

Iterated Games, available at http://demonstrations.wolfram.com/IteratedGames/

Lawsuit Settlement Calculator, available at http://demonstrations.wolfram.com/LawsuitSettlementCalculator/

Legal Incoherence, available at http://demonstrations.wolfram.com/LegalIncoherence/

Liability Insurance Desirability under LogNormal Loss Distributions, available at http://demonstrations.wolfram.com/LiabilityInsuranceDesirabilityUnder-LognormalLossDistribution/

Liability Insurance Desirability When 'Diminution' is Unlawful, available at http://demonstrations.wolfram.com/LiabilityInsuranceDesirabilityWhenDiminutionIsUnlawful/

Life Insurance Pricing, available at http://demonstrations.wolfram.com/LifeInsurancePricing/

Life Transitions, available at http://demonstrations.wolfram.com/LifeTransitions/

Lorenz Curves and the Gini Coefficient, available at http://demonstrations.wolfram.com/LorenzCurvesAndTheGiniCoefficient/

Measures of Node Prominence on a Network, available at http://demonstrations.wolfram.com/MeasuresOfNodeProminenceOnANetwork/

Moral Hazard, available at http://demonstrations.wolfram.com/MoralHazard/

Nash Equilibria in 3 x3 Games, available at http://demonstrations.wolfram.com/NashEquilibriaIn33Games/

Nash Equilibria with Continuous Strategies, available at http://demonstrations.wolfram.com/NashEquilibriaWithContinuousStrategies/

Occurrence versus Claims - Made Insurance Policies, available at

http://demonstrations.wolfram.com/OccurrenceVersusClaimsMadeInsurancePolicies/

Optimal Consumption Paths, available at http://demonstrations.wolfram.com/OptimalConsumptionPaths/

Parameterizing Mathews v. Eldridge, available at http://demonstrations.wolfram.com/ParameterizingMathewsVersusEldridge/

Pay the Points?, available at http://demonstrations.wolfram.com/PayThePoints/

Predictive Scores and Ultimate Test Passage, available at http://demonstrations.wolfram.com/PredictiveScoresAndUltimateTestPassage/

Premium Ratios with Capital Costs Included, available at http://demonstrations.wolfram.com/PremiumRatiosWithCapitalCostsIncluded/

Property Coinsurance, available at http://demonstrations.wolfram.com/PropertyCoinsurance/

Reinsurance Cut - Through, available at http://demonstrations.wolfram.com/ReinsuranceCutThrough/

Restricted Non-Cooperative Game Theory, available at http://demonstrations.wolfram.com/RestrictedNonCooperativeGameTheory/

Retiree Stop-Loss Reinsurance, available at http://demonstrations.wolfram.com/RetireeStopLossReinsurance/

Saving for Retirement, available at http://demonstrations.wolfram.com/SavingForRetirement/

Sensitivity, Specificity, and Incidence, available at http://demonstrations.wolfram.com/SensitivitySpecificityAndIncidence/

Subrogation, available at http://demonstrations.wolfram.com/Subrogation/(after work by Alan Sykes)

Synthetic Legal Precedent Structures: Feature Distance,"available at http://demonstrations.wolfram.com/SyntheticLegalPrecedentStructuresFeatureDistance/

Synthetic Legal Precedent Structures: Lévy Flight, available at http://demonstrations.wolfram.com/SyntheticLegalPrecedentStructuresLevyFlight/

Tax Rates and Tax Revenue, available at http://demonstrations.wolfram.com/TaxRatesAndTaxRevenue/

The Duty to Settle, available at http://demonstrations.wolfram.com/TheDutyToSettle/

The Edgeworth Box, available at http://demonstrations.wolfram.com/TheEdgeworthBox/

The effects of coinsurance and deductibles on optimal precautions for Weibull distributed loss, available at

The Efficient Dual Limit Liability Insurance Contract, available at http://demonstrations.wolfram.com/TheEfficientDualLimitLiabilityInsuranceContract/"

The Persuasion Effect: A Traditional Two Stage Jury Model, available at http://demonstrations.wolfram.com/ThePersuasionEffectATraditionalTwoStageJuryModel/

The Purpose of the Law, available at http://demonstrations.wolfram.com/ThePurposeOfTheLaw/

Unilateral Accident Model, available at http://demonstrations.wolfram.com/UnilateralAccidentModel/

Visualizing Legal Rules: A Homicide Case, available at http://demonstrations.wolfram.com/VisualizingLegalRulesAHomicideCase/"

Visualizing Legal Rules: Battle of the Forms, available at http://demonstrations.wolfram.com/VisualizingLegalRulesBattleOfTheForms/

### Wolfram Function Repository Entries (samples since 2018 relating to machine learning, insurance)

Actuarial Commutation, available at https://resources.wolfram.com/FunctionRepository/ActuarialCommutation

BanzhafPowerIndex, available at https://resources.wolfram.com/FunctionRepository/BanzhafPowerIndex

ConditionalCategoricalDistribution, available at https://resources.wolfram.com/FunctionRepository/ConditionalCategoricalDistribution

ConfusionMatrixFlip, available at https://resources.wolfram.com/FunctionRepository/ConfusionMatrixFlip

ConfusionMatrixToClassifierMeasurementsObject, available at https://resources.wolfram.com/FunctionRepository/ConfusionMatrixToClassifierMeasurementsObject

ConfusionMatrixTrajectoryFunction, available at https://resources.wolfram.com/FunctionRepository/ConfusionMatrixTrajectoryFunction

DatasetQuery, available at https://resources.wolfram.com/FunctionRepository/DatasetQuery

ExpectedClassifierMeasurements, available at https://resources.wolfram.com/FunctionRepository/ExpectedClassifierMeasurements

FirstOrderCorrelation, available at https://resources.wolfram.com/FunctionRepository/FirstOrderCorrelation

GenerateOrderingConditions, available at https://resources.wolfram.com/FunctionRepository/GenerateOrderingConditions

MixtureCategoricalDistribution, available at https://resources.wolfram.com/FunctionRepository/MixtureCategoricalDistribution

MortalityConvert, available at https://resources.wolfram.com/FunctionRepository/MortalityConvert

NegativeCoordinateMarginalDistribution, available at https://resources.wolfram.com/FunctionRepository/NegativeCoordinateMarginalDistribution

ROCPoints3D, available at https://resources.wolfram.com/FunctionRepository/ROCPoints3D

WeakPathGraphs, available at https://resources.wolframcloud.com/FunctionRepository/resources/WeakPathGraphs/

### **Wolfram Data Repository Entries**

Executions in the United States (A dataset about executions (the death penalty) in the United States since the 1976 Supreme Court decision in Gregg v . Georgia), available at https://datarepository.wolframcloud.com/resources/Executions-in-the-United-States/

United States Supreme Court Decisions 1946-present (United States Supreme Court Decisions 1946-present), available at https://datarepository.wolframcloud.com/resources/United-States-Supreme-Court-Decisions-1946-present/

Atlantic Hurricane Data 1851-2017 (A modification of the NOAÂ "Hurdat2" Dataset on Atlantic Hurricanes to facilitate use with the Wolfram Language), available at https://datarepository.wolframcloud.com/resources/Atlantic-Hurricane-Data-1851-2017/

Job Training Efficacy (Data examining the efficacy of job training programs on increasing earnings), available at https://datarepository.wolframcloud.com/resources/Job-Training-Efficacy/

Opinions of John Marshall and Joseph Story (All the Supreme Court opinions of Chief Justice John Marshall and Justice Joseph Story), available at https://datarepository.wolframcloud.com/resources/Opinions-of-John-Marshall-and-Joseph-Story/

### Recent Major Speaking Engagements

### CLE talk

Abortion, SEALS (Destin, Florida 2022)

American Healthcare Finance: With an Emphasis on the Affordable Care Act (video presentation to University of British Columbia Allard School of Law, (January 2019)

Query: How to Efficiently and Elegantly Extract Information in the Wolfram Language (Champaign, Illinois, October 2018)

Exploring A Giant Legal Citation Network (Champaign, Illinois, October 2018)

Insurance Implications of Harvey: ABA Round Table Discussion on Disaster Legal Relief and Recovery (April 2018)

The Affordable Care Act, SEALS (July 2017)

Legal Quanta, Michigan State University Conference (October 2015)

Understanding the ACA with R (June 2015, University of Amsterdam)

What's in Store for the Affordable Care Act...and You, PIAA (Las Vegas, Nevada, May 2015)

Modeling Public Pensions with Mathematica and Python, Wolfram Technology Conference (Champaign, Illinois, October 2013)

Machine Learning Supreme Court Behavior, ReinventLaw Dubai 2012 Conference (Dubai, December 2012)

JLink without Java or Mathematica with .class Wolfram Technology Conference (Champaign, Illinois, October 2012)

# Other Legal Experience

Associate, Munger, Tolles & Olson, Los Angeles, California (1986-1990)

Associate, Williams & Connolly, Washington, D.C. (1984-86)

Judicial Law Clerk, Hon. Edward R. Becker, United States Court of Appeals for the Third Circuit (1983-84)

# Other Employment

Visiting Scholar, Mercatus Center, George Mason University

Consultant, The Novim Group (summer 2013) (consultant on development of public domain software designed to create interactive open model of public defined benefit pension plans from both employee and employer perspectives)

### 6 Abbreviated CV November 2022 v2.nb

Visiting Scholar, Wolfram Research, Champaign, Illinois (summer 1996) Director of Analysis, Penn & Schoen Associates, New York, N.Y. (1979-80)

### **Active Bar Admissions**

California, 1986-present

### **Miscellaneous**

Technical Innovator Award, 2011, Wolfram Research; First Place, 2003 Mathematica Programming Competition, Mathematica Developers' Conference, Champaign, Illinois 2003 (problem involving contraction of point clusters in n-dimensional space; results) (available as *Mathematica* notebook at http://library.wolfram.com/infocenter/Conferences/4829/ and reprinted in PDF format at http://www.law.uh.edu/faculty/schandler/scholarship/scholarship.htm); Honorable Mention, 2001 *Mathematica* Programming Competition, *Mathematica* Developers' Conference, Champaign, Illinois 2001 (problem involving Type B Eden Models) (available as *Mathematica* notebook at http://library.wolfram.com/infocenter/Conferences/4829/ and reprinted in PDF format at http://www.law.uh.edu/faculty/schandler/schol\_arship/scholarship.htm)