



CONTACT INFORMATION

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EDUCATION

MEM, Environmental Economics and Policy, Duke University BS, Marine Biology, *magna cum laude* with Honors, University of North Carolina at Wilmington

PROFESSIONAL PROFILE

Drew F. Howard, MEM

Managing Consultant

EXPERIENCE SUMMARY

Economic & Complex Analytics Group at Roux - Managing Consultant, February 2020 to present. Bates White Economic Consulting, Washington, DC - Senior Consultant, 2017–February 2020; Consultant II, 2015–2017; Consultant I, 2014–2015.

TECHNICAL SPECIALTIES

Drew Howard is a Managing Consultant in the ESG and Economic and Complex Analytics practices of Roux Associates. He specializes in economic and financial analysis, ESG evaluation and disclosure, climate-risk management and due diligence, team and client management, quantitative modeling and data analytics for litigation support and regulatory compliance.

He provides additional consulting expertise in environmental management, GHG emissions calculation, environmental product liability, mass tort, natural resource damages, coastal management, electric power and natural gas markets, renewables, and their nexus to the capital markets, property valuation and diminution, intellectual property, and finance (including MBS and M&A).

Drew is a proven team leader and manages project teams in support of testifying experts in litigation consulting engagements. He is a skilled client manager and levers his broad knowledge base and deep understanding of relevant subject matter to understand client issues and deliver impactful results.

Previously, Mr. Howard worked at Bates White Economic Consulting in Washington, DC. There, he provided analysis of commodities forward contracts, reconciliation of energy settlement valuations, and forecasting of prices in global power markets. He has also worked on assessing the impacts of shifting federal environmental regulations and developing compliance strategies for clients. Additionally, he worked on several intellectual property and finance matters, including leading a consulting team in support of testifying experts to determine the appropriate allocation of approximately \$1 billion of copyright royalties at issue in multiple Copyright Royalties Board arbitration matters.

Mr. Howard holds a Master of Environmental Management from Duke University, with a specialization in Environmental Economics and Policy. He graduated *magna cum laude* with Honors with a Bachelor of Science in Marine Biology from the University of North Carolina at Wilmington. He is a Chartered Financial Analyst Level II Candidate.

REPRESENTATIVE PROJECTS

Environmental Management and Natural Resources

Led consulting teams and acted as client point-of-contact in support of testifying expert for
multiple ongoing litigations regarding PFAS contamination, related damages estimation,
damages allocation to carriers over appropriate policy period, and estimation of legal liability
on behalf of joint groups of insurance companies.

In support of expert testimony in litigation and settlement proceedings: Valuation of remediation costs and natural resource damages related to claims under CERCLA of contamination of wetlands, surface water, and groundwater at over 20 sites due to industrial operator. Calculated remediation costs through creation of Habitat Equivalency Analysis (HEA) models, i.e. calculating lost use value of injured resources.



- Determined economic considerations and calculated appropriate discount rates and weighted average cost of capital (WACC) for use in determining anticipated future liabilities of redevelopers in brownfield cleanup.
- For nonprofit client, estimated economic effects of designation of the inclusion of PFAS family of chemicals under CERCLA. Estimated cleanup costs at non-federal superfund sites and modeled economic value of PFAS chemicals in various industries, including manufacturing, AFFF, automobiles, carpet making, semiconductors, and more. Analyzed impacts of PFAS listing in regard to carbon emissions reduction goals and unintended consequences from federal policy. Calculated carbon emissions from various industries and how they would be affected by changing technologies related to PFAS.
- Led consultant teams in support of testifying expert in litigation concerning alleged property value diminution uncovered from whistleblower claims of alleged fraudulent behavior and environmental contamination of defendant parties (ongoing). Created hedonic property value regression models and other financial models to analyze the claims of alleged property value diminution. Analyzed data to provide opinions related to class certification.
- In support of testifying expert, Analyzed potential natural resource damages and insurance policy liability of surface water contamination to a large Western river. Alleged damages occurred both on and off tribal land.
- Evaluated potential lost revenue and damages regarding business interruption claims caused by mold damage at commercial hotel property.
- On behalf of rebuttal testifying expert, evaluated plaintiff
 expert's determination of appropriate discount rate used to
 recover treatment costs related to alleged 1,4-dioxane
 contamination of drinking water supply wells. Analyzed plaintiff
 expert's calculations and claims of appropriate discount rate
 reflecting opportunity cost of capital and expected growth in
 costs for calculation of present value of capital and operations
 and maintenance costs.
- On behalf of industrial client, provided valuation analysis for settlement mediation surrounding wildfire damages claims.
- Analyzed effects of inclement weather and natural disasters (hurricanes) on North Carolina barrier island ecosystems.
- Valuation analysis of impacts to groundwater and rent roll implications from agricultural contamination.
- Assessed and valued timber stands in North Carolina in preparation for commercial harvest.

- On behalf of construction material manufacturers Holcim Ltd. And Lafarge SA regarding their proposed merger, provided economic analysis of possible competitive concerns in North America and advised the merging parties.
- Supported lead expert on behalf of DOJ in analyzing the proposed merger of silicon metal producers FerroAtlantico and Globe Specialty Metals.
- Supported lead expert in antitrust matter to evaluate antitrust and market monopolization claims in agricultural commodities.
- Provided consulting services on wastewater supply chain management services.

ESG

- Developed customized environmental survey tool to facilitate collection of energy use and other material environmental information across client's 200+ business locations.
- Created (as part of team) company's inaugural ESG report:
 Collected and analyzed company-wide environmental data to calculate carbon emissions and set performance goals and key performance indicators (KPI); conducted materiality assessment according to SASB; identified optimal reporting frameworks, established data management protocols for annual reporting, evaluated climate-risk.
- Provided consulting expertise on emissions accounting and climate-risk management, strategic development of plan to comply with downstream company's Scope 3 emissions disclosure requirements
- Provided consulting services and regulatory support to utility client on projected impacts of the EPA Clean Power Plan.
 Included analysis of impacts on regional carbon markets and cap-and-trade pricing.
- Provided consulting expertise on financial mechanisms related to climate risk in support of external consultant, analyzing climate change risk to small-island nations.

Energy

- Managed team of consultants and economists in support of expert testimony on behalf of the California Attorney General's office in State of California ex rel. Christopher J. Schroen, et. al., v. BP America Production Company, et. al. (Case No. CGC-12-522063) regarding the market value of natural gas forward transactions with embedded optionality. The case settled for \$102 million on the eve of trial.
- Analyzed strategies and data related to dividend payouts and other financial metrics to assist client assessment of potential management options regarding V.C. Summer Nuclear Reactor.
- On behalf of a group of investor-owned utilities and state agencies, valued and reconciled energy crisis settlements in

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FERC litigation by creation of financial models and algorithms on behalf of the California Parties.

- Provided consulting services to Ministry of Trade, Industry and Energy (MOTIE) of Korea on global nuclear power plant construction and decommissioning market outlook.
- Curated forecast model of the CFE (Mexican electric utility) tariff pricing.

Environmental Product Liability

- Led consulting teams and acted as client Point of Contact in support of testifying expert and on behalf of insurance client in class action litigation (ongoing) involving allegations of damages caused by allegedly faulty protective equipment.
 Created database of plaintiff claims information and allocated potential damages to appropriate carriers and policy periods with waterfall models.
- Supported lead testifying expert and acted as consulting point
 of contact on behalf of insurance clients in three separate classaction litigations related to personal-injury torts. Analyzed
 plaintiff claims data, created liability estimation models and
 policy period allocation models.
- Acted as client liaison and lead consultant to insurance client in estimation of potential future damages relating to at-risk coverage policies in regards to ongoing personal-injury class action torts.
- Provided analytical and litigation support regarding potential liability surrounding Ethylene Oxide litigation.
- In Amgen Inc. v. Sanofi Aventisub LLC and Regeneron Pharmaceuticals, Inc., provided financial analysis and consulting in support of the testimony of Dr. Ernst R. Berndt regarding the eBay factors in a matter involving permanent injunction on behalf of Amgen, alleging infringement of its patents.
- In re Urethane Antitrust Litigation, supported testifying expert.
- Supported lead consulting expert on behalf of a provider of laboratory testing services facing government investigations into alleged FCA violations. Selected and evaluated statistical samples. Evaluated patterns in available data and potential economic damages.
- Supported lead expert in ongoing wrongful death litigation.

Intellectual Property and Antitrust Litigation

 Led teams in support of testifying expert before the Copyright Royalty Board on behalf of the National Association of Broadcasters In re Distribution of 2010–2013 Cable Royalty

- *Funds* to determine allocation of over \$1 billion in television royalties.
- Co-led team in support of expert testimony in dispute related to potential antitrust violations and market monopolization in pharmaceuticals industry.
- Authored internal whitepapers on IP antitrust topics including patent misuse, branded ingredients, and trademark strategy.
- Provided expert support on behalf of Songkick in Complete
 Entertainment Resources LLC v. Live Nation Entertainment, Inc.
 et al., its antitrust suit against Ticketmaster and its parent
 company Live Nation.
- Supported expert testimony on behalf of Tata Consultancy Services Limited, on damages issues in a dispute over the implementation of an SAP Enterprise Resource Planning (ERP) system for a global law firm.
- Supported expert testimony regarding econometric and game theoretical evidence on the question of whether poker is a game predominated by skill or chance.
- Provided consulting support in the market for baseband processors and potential FRAND violations in the licensing of standard essential patents (SEPs).
- Evaluated financial data and calculated damages based on division of gains strategy for client in medical devices industry.
- Supported lead expert in a Section 337 antitrust matter before
 the International Trade Commission (ITC) to evaluate antitrust
 claims on behalf of a reseller and provider of maintenance,
 repair, and operations (MRO) services for industrial automation
 applications.
- Provided consulting and regulatory support to music industry clients regarding digital and mechanical licensing regulations.

Finance

- Supported testifying expert in RMBS matter on behalf of trustees and insurers in disputes over the quality of mortgages pooled in various RMBS trusts.
- Provided litigation support in cases of alleged manipulation in commodity markets. Assessed economic theories of harm, methods of manipulation, and potential sources of damages.
- Created algorithm to collect and evaluate thousands of companies' financial metrics, and financial models and reports to assist Fortune 500 client with transfer pricing strategies.
- Provided economic analysis to support client's bilateral APA, including highlighting issues with APMA position.

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