



R. GARRISON HARVEY

July 2022

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Gary Harvey is the President and CEO of Cirque Analytics, an economic, statistical, and financial consulting company headquartered in Jackson Hole, WY and with offices in California and Washington DC. He received the Bachelor of Science degree in Applied Mathematics from the United States Air Force Academy and the Master of Science degree in Operations Research from the Air Force Institute of Technology. While an officer in the U.S. Air Force he primarily analyzed U.S. force structure and weapon systems performance.

He has served as an expert witness in litigation, arbitration, and regulatory proceedings involving evaluation of damages, commercial disputes, antitrust, sample design and analysis, payment card market analysis, payment card industry data analysis, TV broadcast data analysis, conjoint analysis, copyright infringement, patent infringement, consumer product performance, epidemiology, toxic tort analysis, insurance claims analysis, medical claims analysis, healthcare fraud claims analysis, victims of human trafficking, and class certification.

Additionally, he has worked as a consultant on numerous litigation and business consulting engagements including: antitrust matters involving claims of price-fixing; matters involving claims of false advertising, unfair competition and monopolization, consumer product safety and performance, conjoint analysis, and environmental damage; class actions alleging disparate impact in insurance, insurance claims analysis, and medical claims and data analysis, and lending; and patent and intellectual property matters involving pharmaceutical drugs, petrochemical formulation, automobile components, intellectual property.

Mr. Harvey has expertise in statistical and mathematical analysis of data. This expertise includes damage analysis; survey design, analysis and administration; U.S. and international payment card market analysis, profitability and forecasting; TV broadcast data analysis; human health and epidemiology involving tobacco risks, dynamic propagation of viruses, pharmaceutical drugs, and consumer products; automobile safety and valuation; hospital data analysis; class certification; evaluation of insurance claims including allocation among primary and excess insurance carriers; regression analysis; survival analysis; Bayesian analysis including imputation of missing data; propensity score analysis; conjoint analysis; forecasting; and big data analysis.

EDUCATION

B.S. (Applied Mathematics) (1988), USAF Academy
M.S. (Operations Research) (1992), Air Force Institute of Technology

Jackson Hole, WY

Irvine, CA

Los Angeles, CA

Washington, DC

PROFESSIONAL EXPERIENCE

2021-Present President and CEO, Cirque Analytics
1996- 2020 William E. Wecker Associates, Inc.
President, Principal Consultant: 2020
Vice President, Principal Consultant: 2000 - 2019
Senior Consultant: 1996 - 1999
1992 - 1995 Scientific Analyst, Officer USAF, Scott AFB, IL
1992 - 1995 Adjunct Professor, Belleville Area College, Belleville, IL
1992 - 1993 Total Quality Management Instructor, Officer USAF, Scott AFB, IL
1990 - 1992 Graduate Student, Officer USAF, Air Force Institute of Technology
1988 - 1990 Scientific Analyst, Officer USAF, Vandenberg AFB, CA

SELECT EXPERT REPORTS, TESTIMONY, DECLARATIONS AND PROCEEDINGS

- Testifying expert for Visa and major US banks (e.g., Bank of America, Barclays, Capital One, Citibank, Fifth Third, HSBC, JPMorgan Chase, PNC, SunTrust, and Wells Fargo) involving billions of dollars of claimed damages in the Payment Card Interchange Fee and Merchant Discount Antitrust Litigation. Issues involved damage calculations, payment card market analysis, profitability, but-for world benchmarks and big data analysis.
- Testifying expert for Visa in EMV Fraud Liability Shift Antitrust Litigation. Issues involved damage calculations, payment card market analysis, and big data analysis.
- Testifying expert for Visa in litigation with credit card cobrand partner. Issues involved damage calculations, breach of contract, consumer product performance, credit card market analysis and profitability.
- Testifying expert for Major League Baseball, National Football League, National Basketball Association and Women's National Basketball Association in multiple Cable Royalty Distribution Proceedings. Issues involved sample analysis of Nielsen data to determine the relative economic value of programming and the allocation of cable royalty revenues.
- Testifying expert for Major League Baseball, National Football League, National Basketball Association and Women's National Basketball Association in Satellite Royalty Distribution Proceedings. Issues involved sample analysis of Nielsen data to determine the relative economic value of programming and the allocation of satellite royalty revenues.
- Testifying expert for RAI Services Company to analyze the Food and Drug Administration's (FDA) proposed rule "Tobacco Product Standard for Menthol in Cigarettes" that proposes a tobacco product standard that would prohibit menthol in cigarettes.
- Testifying expert for Altria Client Services LLC, testimony at the FDA's Tobacco Products Scientific Advisory Committee regarding a proposed "modified risk" claim. Issues involved morbidity and mortality of reduced risk tobacco products, and survival analysis.
- Testifying expert in toxic tort case involving environmental contamination impact on human health, medical costs and medical monitoring damages.

- Testifying expert in copyright infringement case. Issues involved Hierarchical Bayes Choice-Based conjoint analysis, product feature valuation and impact of market share, sample design and analysis.
- Testifying expert for Blue Cross Blue Shield Kansas City in health care claims dispute regarding alleged healthcare fraud.
- Testifying expert for Allianz SE Insurance Company in asbestos coverage litigation for historical products and operations claims. Issues involved sample design and analysis, products/operation insurance coverage, forecasting, and primary and excess insurance policy allocation analysis.
- Testifying expert for Altria, Philip Morris USA, Inc., R.J. Reynolds Tobacco Company, and ITG Brands, LLC, and the National Association of Convenience Stores (“NACS”) in case brought by the United States Department of Justice. Issues involved survey design and analysis including analysis of U.S. census data and Census Bureau's American Community Survey (ACS).
- Testifying expert for BP Solar International, Inc. in class action litigation. Issues involved damage calculations, product failure analysis, sample design, sample analysis and forecasting.
- Testifying expert for Chase Bank in litigation with major retail cobrand partner. Issues involved damage calculations, consumer product performance, forecasting, credit card market analysis and profitability of card portfolio.
- Testifying expert for victims in human trafficking case involving Trafficking Victims Protection Act (TVPA) and Fair Labor Standards Act (FLSA).
- Testifying expert for firearms manufacturers in litigation on gun sales and tracing. Issues involved sample design and analysis, the relationship between gun availability and crime, and forecasting.
- Testifying expert for R.J. Reynolds Tobacco Company in class action litigation. Issues involved epidemiology, data analysis, survival analysis, association of smoking cessation and disease risk.
- Testifying expert for Bay Area News Group in litigation related to alleged copyright infringement. Issues involved sample design and analysis.

SELECT CONSULTING EXPERIENCE

- Analysis of payment card partnerships, profitability, and future market share in a dispute between Visa, US issuing banks and American Express.
- Analysis of payment card partnerships, profitability, and future market share in a dispute between Visa, US issuing banks and Discover Card.
- Tobacco Health Care Cost Recover Cases in the US and internationally. Analyses to assess various methods to estimate disease and health care costs attributable to various risk factors, role of various risk factors on historic and future health care costs, disease risk of smoking and role of smoking cessation, financial analyses, historic and future health care costs, detailed analysis of hospital and medical treatment data.
- Numerous projects evaluating conjoint analyses applications to estimate of value of product features, value of images, change in market share and willingness to pay arising from features of various products.

- Litigations involving low-tar and light cigarettes delivery of tar and nicotine, differential biomarker levels attributable to tar levels, health risks, tar levels effects on smoking behaviors and damages.
- Population health impact modeling.
- Analyses of automobile safety and accident epidemiology for Ford, GM and Fiat Chrysler.
- Analyses of product performance, determining size and scope of automotive recalls, and damages analyses for Ford, GM and Fiat Chrysler.
- Effect on automobile sale prices of information related to alleged component defect.
- Effect on consumer product sale prices of information related to alleged component defect.
- Analysis of GEICO automobile insurance underwriting and pricing model.
- Analyses of loan approval criteria and charge-offs for consumer loan portfolios.
- Analyses of consumer product performance and safety related to windows, solar panels, house siding, cell phones, office products, hospital products, and other products.
- Analyses of strategic war fighting capability associated with alternative Air Force aircraft fleet structure, effect on warfighting scenarios and relative costs trade-offs. Presented analyses to members of congress, Joint Chiefs of Staff, Secretary of Defense, Deputy Secretary of Defense, every four-star general in the Air Force, and numerous other governmental and military organizations.
- Analyses of medical insurance plans and hospitalization data.
- Sample design, analysis and linking of individuals' medical records.
- Sample design and analysis of insurance claims.
- Sample design and analysis of product performance and warranty claims.
- Sample design and analysis of US Air Force global air transportation system.
- Sample design and analysis of consumer preferences.
- Sample design and analysis of members of a class action lawsuit.
- Damages analyses in business interruption cases.
- Analyses of healthcare costs and disease attributable to asbestos exposure.
- Analyses of ground water contamination and role of mitigation.
- Analyses of insurance coverage related to environmental chemical exposure.
- Analyses of international Visa payment card markets and role of government regulation.
- Analyses of prescription drug formulation, and clinical studies in patent dispute cases.
- Reduced risk tobacco products impact on health risks, smoking cessations and initiation.
- Analysis of gasoline formulation and role of manufacturing process in patent dispute.
- Analysis of deep-water oil drilling historical designs, procedures, performance and mishaps.
- Analyses of rocket reliability, accuracy and navigation reliability.
- In-car navigation system patent and performance analysis.
- Hospital efficiency, scheduling and patient outcome analysis for the AF Surgeon General.
- Analyses of methods to increase efficiency, decrease costs and decrease delays in Air Force air transportation for the U.S. Transportation Command.
- Evaluation of potential new joint-service wargaming models at the request of the Secretary of the Air Force.

HONORS

Meritorious Service Medal (MSM) while officer in US Air Force.

Air Mobility Command Officer of the Year, 1993.

Barchi Prize, 1994 Military Operations Research Society.

Outstanding Cadet Intercollegiate Speech Competition & Team Captain, USAFA, 1988.

Best Application of Operations Research/Management Science Achievement Award, 1993.

Institute of Management Science/Operations Research Society of America, St. Louis Gateway Chapter.

PUBLICATIONS AND NON-TESTIMONY PRESENTATIONS

“Constrained System Optimization and Capability Based Analysis” (with K. Bauer, J. Litko), Military Operations Research, Vol 2, No 4, 1997, pp. 5-19.

“Military Modeling and Simulation: Reflections and Directions”, 1994 Winter Simulation Conference Proceedings, pp. 741-743.

“Constrained System Optimization and Capability Based Analysis”, 62nd Military Operations Research Society, National Meeting, 1993.

“Force Allocation Through Constrained Optimization”, 61st Military Operations Research Society, National Meeting 1993. Awarded Best Working Group Paper.

“Experimental Design Considerations in the Optimization of Stochastic Response Surfaces”, Sponsored Session presentation, TIMS/ORSA Joint National Meeting, Chicago 1993.

“C-141 Depot Maintenance: Using Simulation to define Resource Requirements” (with T. Schuppe, D. McElveen, P. Miyares), Air Force Journal of Logistics, Winter-Spring 1993, pp. 11-15.

“Force Allocation Through Constrained Optimization of Stochastic Response Surfaces” (with K. Bauer, J. Litko), 1992 Winter Simulation Conference Proceedings, pp. 1121-1129.

“C-141 Depot Maintenance: Using Simulation to Define Resource Requirements” (with T. Schuppe, D. McElveen, P. Miyares), 1992 Winter Simulation Conference Proceedings, pp. 1145-1152.

“Plane Symmetry Groups” (with D. Jensen), Department of Mathematical Sciences, United States Air Force Academy, June 1988.

Invited lectures at: University of Washington in St. Louis, University of St. Louis, United States Air Force Academy, Air Force Institute of Technology, and Pentagon Studies and Analysis Group.