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SUMMARY

Dr. Cross has over 20 years' experience as an economist and statistician in academia, government, and consulting. His consulting experience includes being a testifying expert in a large class-action litigation involving health-care provision reimbursement, writing expert reports and testifying in antitrust matters, class action matters, employment discrimination matters, breach-of-contract matters, regulatory matters, and analyzing the compensation structure for equity partners in large professional services firms. In addition, Dr. Cross has considerable experience providing expert support and project management in antitrust and class actions cases as well as general consulting for businesses, governments and non-profits.

EDUCATION

Ph.D., Economics, University of Wisconsin
M.A., Economics, University of Wisconsin
B.Com. (Hons.), Economics, University of New South Wales

PRESENT EMPLOYMENT

Kenyon Consulting, LLC, Founder and Principal

AFFILIATE POSITION

Monument Economics Group, Senior Advisor

PREVIOUS CONSULTING POSITIONS

AlixPartners, LLP, Director, 2016-2019
Berkeley Research Group, LLC, Senior Managing Economist, 2013-2016
Exponent, Inc., Managing Economist, 2012-2013
Deloitte Financial Advisory Services, Managing Economist, 2009-2012
Department of Defense, Office of Comp., Personnel & Policy, Consultant, 2003-2004

EXPERT EXPERIENCE

- Expert witness for defendant in a class-action litigation between a health insurer and a group of health-care providers over alleged claim under-reimbursement. Submitted an expert report

outlining flaws in plaintiff expert's proposed method of ascertaining the class, by illustrating how data available to plaintiffs' expert fall short of accurately identifying which health-care providers are class members.

- Expert witness for plaintiffs in an Equal Pay Act class action against a technology company. Wrote an expert report and gave deposition testimony arguing that a subset of female employees were paid less than males employees who were working in jobs which required substantially similar skills, effort and responsibilities, and which were performed under substantially similar working conditions. Showed that this gender pay gap could not be explained by worker characteristics such as job experience or performance evaluations.

- Expert witness for defendant in a class-action litigation between a telecommunications company and end users over alleged privacy violations occurring when using telephone number masking technology. Critiqued plaintiffs' expert's class ascertainability assertions and damage estimates by illustrating how nuances in the direction of call routing affects class members' injury, or lack thereof.

- Expert witness for plaintiffs in a class-action litigation between probationers and a private probation company. Probationers' due process rights were allegedly violated when the company unilaterally extended the duration of probationers' sentences and increased the fines they owned so as to continue collecting monthly fees. Written expert report, and deposition testimony, calculating economic damages incurred from additional review hearings and office visits, as well as lengthened probation terms.

- Retained as an expert witness for defendant in an antitrust litigation between a large automotive manufacturer and one of its suppliers. The expert report refutes the plaintiff expert's claim that sales data empirically support the allegation that the parts supplier conspired to raise prices over a six-year period. The plaintiff expert's empirical analysis employs an overly simplistic and flawed model of pricing dynamics. By employing a superior empirical analysis, with much improved modelling of price dynamics, sales data are seen to contain no statistically supportable evidence of a conspiracy.

- Retained as an expert in a petition to allow entry into a local jurisdiction of an additional trash hauler to compete with the existing monopoly provider of trash-hauling services. Comparing the economics of trash hauling, both on the supply and the demand side, to that in similar jurisdictions demonstrates the benefits of allowing the entrant outweigh the costs.

- Retained as an expert in a major, ongoing class-action litigation involving an alleged antitrust violation. Provided rigorous empirical analysis showing that defendants are liable, and produced preliminary damages estimates to assist plaintiffs in their settlement negotiations with the defendants.

- Expert witness for defendant in a gender-discrimination dispute between an oil services firm and two former employees. Wrote an expert report arguing that the experiences of the two plaintiffs differed substantially in several dimensions, undermining the plaintiffs' claims that the commonality requirement of Federal Rule 23(a) could be satisfied in an attempt to certify a class. One plaintiff subsequently exited the litigation, and the remaining plaintiff no longer pursued a class action claim.

- Expert witness for the defendant in a breach of contract litigation between two firms providing technology to facilitate charitable giving. Submitted an expert report rebutting plaintiff expert's estimated damages due to lost profits. The plaintiff expert's forecast of future profits used a flawed statistical model that produced unreliable forecasts. The forecasts also assumed non-credible profit margins and product life cycles.

- Retained as an expert in multiple employment discrimination (due to age, gender, race and/or health status), wrongful death, and personal-injury matters. Written opinions and deposition and trial testimony estimating the economic damages over a working life due to lost wages, basing projections of future earnings on recent income and educational history and the volatility/stability of recent income streams.

- Expert witness for the plaintiff in a lost wages and lost profits matter involving a breach of contract and employment discrimination. Plaintiff was a co-founder and employee of a large and rapidly expanding medical practice. Submitted an expert report and testified in deposition as to the plaintiff's resulting loss of wages and loss of profits.

- Retained as a consulting expert to provide economic analysis of the compensation structure for equity partners at a large professional services firm. Combining pay stub data with accounts receivable data, hourly billings data, and other performance measures affords the estimation a regression model of compensation as a function of productivity. This model can be employed to show the absence of gender- and age-discrimination in compensation and promotion policies.

SECURITIES LITIGATION EXPERIENCE

- Expert-witness support for defendant in a litigation between an investment group and an engineering company over alleged loss causation. Rebutted plaintiff expert, whose stock-price regressions were mis-specified. Correctly specifying the stock-price regressions greatly reduced the number of days flagged by the plaintiffs' expert as yielding abnormal returns.

- Expert-witness support for defense in a large litigation by the Australian Securities and Investments Commission against one of Australia's largest banks over alleged manipulation of the bank bill swap rate ("BBSW"). Event study techniques were used to estimate the damages resulting from alleged manipulation of the BBSW by the defendant.

- Expert-witness support in numerous class actions involving proof of loss causation. Event-study techniques, as well as evidence of corrective disclosure, show how proximate defendants' misrepresentation or omissions are to plaintiffs' economic losses.

- Expert-witness support in a cryptocurrency litigation where the Plaintiff was not adequately compensated for crypto tokens as the defendant claimed the tokens were only able to be purchased because of a bug in the software controlling the decentralized computer system hosting the blockchain protocol. Correctly pricing the tokens by fully accounting for their aggregated supply allowed damages to be accurately estimated.

CLASS-ACTION LITIGATION EXPERIENCE

- Expert-witness support for plaintiffs' counsel in a class action between 170,000 purported class members and 17 elite universities over price fixing via coordinating on levels of institutional grant aid. Fixed-effect regression analysis was employed to estimate the financial aid shortfall in aggregate, and for each of the individual defendants.

- Expert-witness support in a class-action litigation between a large auto manufacturer and its customers over allegedly defective in-car technology. Assisted in designing and implementing a conjoint survey to measure customers' willingness-to-pay for various car-interior add-ons, including in-dash technology. Computed credible damages estimates as a function of this estimated willingness-to-pay.

- Expert-witness support in a class-action litigation between a sports drink manufacturer and its customers over an allegedly misrepresented ingredient list. By effectively questioning the reliability of plaintiffs' conjoint survey design, the damages and liability claims were effectively critiqued.

- Expert-witness support in a class-action litigation between a group of blue-collar workers and their former employer, a large manufacturer. Summarizing pay-stub level data as a panel dataset, organized by monthly pay and worker, allows for empirically testing and rejecting several assumptions employed by the plaintiff expert in computing alleged damages.

- Expert-witness support in a class certification matter between a large financial services firm and a number of its entry-level employees. By analyzing raw, time-stamped data, several of plaintiffs' expert's claims were shown to be exaggerated to the point of being invalid. Analysis of the data revealed substantial variation between proposed class members with respect to liability, indicating a need for individual inquiry. In addition to proposed class member liability issues, analysis of the firm's internal data revealed a degree of measurement error.

- Expert-witness support in a class-action litigation between a group of landowners/mineral rights holders and several mining companies over alleged royalty underpayments. A sampling scheme design and implementation draws a representative sample of deeds for examination.

- Expert-witness support in a class-action litigation between a large auto manufacturer and its customers over allegedly defective in-car technology. Assist in designing and implementing a survey to measure customers' willingness-to-pay for various car-interior add-ons, including in-dash technology.

ANTITRUST LITIGATION EXPERIENCE

- Expert witness support in an antitrust litigation between a large automotive manufacturer and one of its suppliers over an alleged price-fixing conspiracy. By using a differences-in-differences approach to compare the average unit price in the alleged conspiracy period with that in the non-conspiracy period, the absence of a statistically significant increase in prices can be shown. Plaintiffs' expert's analysis critiqued for identifying the conspiracy period in part by examining

patterns of price movements, and then proceeding to use these same price data to allege evidence of a conspiracy.

- Expert-witness support in an antitrust dispute between competing installers of residential solar panels. Regression analysis shows evidence of labor-market manipulation whereby the entering firm faces higher labor costs in geographic markets with a large presence by the incumbent. This input-cost effect coincides with supra-competitive pricing by the incumbent.

- Assisting an oil refiner with a proposal to purchase a recently shuttered small refinery from a competitor. Concerns raised by the Federal Trade Commission about potentially anti-competitive effects of the purchase need addressing. By comparing oil prices in distinct geographic regions before and after the shuttering of the refinery, it can be shown that potentially anti-competitive effects of the refiner owning one more refinery are more than offset by the supply effects of having the shuttered refinery re-open. Further, estimating the effect of market demand as a function of geographic proximity to the refinery shows that the refiner's market concentration, properly defined geographically, would increase negligibly with the refinery purchase.

- Expert-witness support in an antitrust dispute between a large vegetable growers' collective and a large wholesaler over alleged price fixing via artificial suppression of supply. By building a microeconomic model of supply and demand and populating the model with years' worth of data from several disparate sources, it can be shown that the alleged artificial supply restrictions are too small a share of the overall market to allow for substantive anti-competitive behavior. Further, plaintiffs' expert's analysis can be effectively critiqued for using poor data that are not sufficiently disaggregated. Regression analysis results are shown to be sensitive to the disaggregation of data down to a monthly frequency, regional market and distinct vegetable type.

STATISTICAL ANAYLSIS LITIGATION EXPERIENCE

- Expert-witness support in a trade-secrets dispute between two manufacturers of steel products. The allegation that the defendant firm used improperly obtained balance sheet information about the plaintiff to win a disproportionate number of job bids against the plaintiff was successfully rebutted by showing statistically insignificant changes in bidding behavior of the defendant before and after the alleged accessing of trade secrets.

- Expert-witness support in a *qui tam* case involving alleged over-billing to Medicare, Medicaid and Tricare by an operator of dozens of skilled nursing facilities (SNFs). Assessing the Relator expert's proposed methods of sampling SNF billing records reveals numerous flaws. Proposing an improved sampling scheme yield a more representative and less biased sample than that proposed by Relator expert.

- Assisting in settlement negotiations between a large regional health-care provider and the U.S. Department of Justice over alleged Medicare over-billing. By exposing flaws in sampling method employed by the Department of Justice, a superior method, based on stratified sampling and appropriate sample weights, can be designed and implemented.

- Designing a sampling scheme to draw a representative sample of defense contracts awarded to a major U.S. manufacturer to satisfy a request from the Defense Contract Audit Agency.

LABOR ECONOMICS LITIGATION EXPERIENCE

- Expert-witness support in employment-discrimination and wrongful-termination litigations. Damages from lost wages are computed by forecasting future pay but-for the termination based on historical pay trajectories. Damages from reduced value of stock options, due to (i) the expiration of unvested options, (ii) forced exercising of vested options, and (iii) loss of potential options in the future.

- Expert-witness support in wrongful death and personal injury litigations. Forecasting lost wages is possible by constructing estimates of the present value of counterfactual wage earnings of the alleged economically damaged party using historical employment and pay records. Consortium claims damages are likewise estimated by forecasting the value of household and familial roles based on relevant demographics.

GOVERNMENT CONTRACT DISPUTE EXPERIENCE

- Assisting an energy supplier in a *qui tam* dispute with a state government involving alleged over-pricing of energy contracts. By performing a sensitivity analysis comparing different potential definitions of the daily market price, and different definitions of volatility, alleged damages can be shown to be much smaller than claimed by the relator's expert.

- Expert-witness support in a government contract bid protest by a large health insurer, providing analysis of current financial statements and also an analysis of assumptions underlying growth projections.

OTHER LITIGATION EXPERIENCE

- Expert-witness support in litigation against a large health insurance company by an ambulatory surgical center over alleged claim of under-reimbursement.

- Expert-witness support in litigation against an ambulatory surgical center by a large health insurance company over alleged over-billing. A representative sample of similar claims was identified and obtained, illustrating multiple instances of abnormally high billed charges by the ambulatory surgical center.

- Expert-witness support in a litigation between a city government and a large bank over allegedly abusive mortgage lending practices targeted at African American customers and housing in predominately African American neighborhoods. Mortgage-application data from the bank were

used to apply a formal test showing that, after accounting for usual indicators of credit risk, the additional factor of race did not have statistically significant effect on mortgage terms.

- Expert-witness support in a litigation between a government securities regulator and a large bank over alleged interest rate rigging. Data on individual trades was combined with data on daily movements in key interest rates to argue that trading behavior on alleged rate-rigging days did not appear to be abnormal.

- Expert-witness support in a lawsuit between two telecommunications companies over alleged re-routing of international calls to bypass the mandated switch. By comparing call volumes with the number of mobile phone subscribers, and estimate of bypassed calls and corresponding economic damages was computed.

- Expert-witness support in a large set of consolidated product liability lawsuits against the manufacturer of a medical device. A Monte Carlo statistical simulation was designed and implemented to determine the feasible range of settlement payments.

- Expert-witness support evaluating claims of unfair competition, false advertising, and unfair trade practices when providing confirmatory urine drug testing for pain-management healthcare practitioners.

- Expert-witness support in a criminal matter involving alleged stock-price manipulation by a CFO. An event-study analysis was performed to identify the presence or absence of statistically significant abnormal returns on alleged manipulation days.

- Expert-witness support in a litigation between a major retailer and financial services companies over a data-breach resulting from credit and debit card use at the point of sale. Constructed a representative sample, by applying stratified-sampling weights, of breached transactions to assess the incidence of fraud.

- Assisting a national insurance company in a dispute with the Department of Justice over allegedly fraudulently altered crop insurance policies. A statistically representative stratified sample of policies was constructed for audit review, and an econometric scoring model was applied.

- Expert-witness support performing a regression analysis to estimate the amount of cost pass-through resulting from incorporating inputs allegedly subject to price fixing.

- Developing an economic model supporting an expert opinion on consumer costs resulting from the Environmental Protection Agency implementation of a risk mitigation decision related to certain rodenticide products.

NON-LITIGATION CONSULTING EXPERIENCE

Private Sector

- Assisting a large network of hospitals more accurately forecast their accounts receivable for outpatient expenses. Summarizing claim-level data as a panel dataset, organized by month and patient, allows for regression analysis to be employed, thereby exploiting the value to forecasting of such variables as insurer, patient's relationship to the insured, and the size of the bill. Forecast accuracy improves by correcting for over-selection of more rapidly paid bills.

- Providing privileged consulting services for several-professional services firms. Tasks include analyzing compensation structures for equity partners and senior management for evidence of potential age or gender discrimination. Other tasks include analyzing existing policies linking performance metrics to compensation and promotion decisions, and advising on optimal performance-compensation mechanisms.

- Building and applying a regression model to more accurately predict the fraction of loyalty points that will eventually be redeemed by participants in a major airline loyalty program. Summarizing transaction-level data (on over 50 million transactions) in a panel dataset, organized by year and participant, allows for regression analysis to yield more accurate forecasts.

- Assisting in estimating a demand model for pay-phone calls in a dispute between pay phone operators and a large telecommunications firm.

- Assisting in the forensic examination of stock trading by a stock-trading firm allegedly not acting in the best interests of its client.

- Constructing a simultaneous-equations regression model to estimate the disaggregation of costs into various depreciation categories for a major U.S. retailer.

Government

- Building and applying an econometric model to assist a Western European government more accurately forecast repayment rates for its student-loan program. Since loan repayments are administered via the income-tax system, the model estimates income growth and volatility for differing categories of college graduates. From individual tax records a panel dataset, organized by annual income and graduate can be constructed and matched to a large government-sponsored panel.

- Modeling the economic incentives impacting the enlistment and retention of military members. By linking administrative data on retention with survey data measuring job satisfaction, a regression model can be developed exploiting survey data as an accurate leading indicator of reenlistment behavior.

- Assisting in the writing of a report for the Department of Labor critiquing the predictive abilities of various pension forecasting models.

- Assisting in the writing of a report for the Department of Labor highlighting the liability exposure of U.S. publicly traded companies to legacy health-care costs for retired workers.

- Assisting in the writing of a report for the Department of Labor's Employee Benefits Security Administration summarizing the risk and reward profiles of target-date mutual funds.

- Forensically analyzing time reports to investigate alleged over-charging of time by employees of a major military contractor in Iraq.

ACADEMIC EXPERIENCE

Georgetown University, Department of Economics, Assistant Professor, 2001-2008
      Undergraduate Microeconomics
      Undergraduate Statistics
      Undergraduate Econometrics
      Graduate Econometrics
Johns Hopkins University, Department of Economics, Visiting Assistant Professor, 2002
      Graduate Econometrics
Melbourne University, Department of Economics, Visiting Scholar, 2002-2004

ACADEMIC PUBLICATIONS

Regressions, short and long (with Chuck Manski), *Econometrica*, 2002.

Of mice and men: Within gender variation in strategic behavior (with Marco Castillo), *Games and Economic Behavior*, 2008.

Nonparametric utility theory in strategic settings: Revealing preferences and beliefs from proposal-response games (with Macro Castillo & Mikhail Freer), *Games and Economic Behavior*, 2019.

PROFESSIONAL AFFILIATIONS

Member of the American Bar Association
Member of the American Economic Association
Member of the American Statistical Association
Member of the Econometric Society
Member of the National Association of Forensic Economics