

Joseph Cohen, Ph.D.

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SUMMARY

Human Factors practitioner with deep understanding of accident investigations, ergonomics in design, and circumstances that shape human performance and behavior. A credentialed professional with a broad domestic and international experience base who is skilled in project and field work, specializing in forensic and management consultations involving safety, premises liability, products liability, traffic crashes, and technology.

LITIGATION PROFILE

An experienced analyst of more than one-thousand accidents involving personal or occupational injury, including various crash types, fall types, and failures.

Has provided sworn testimony in trials and other court proceedings about standards, compliance and violations, dangerous conditions and unsafe acts, human behavior, hazard response and avoidance (including sensation, perception, and cognition), impairments, fundamentals of biomechanics, and design of warnings, instructions, and other systems for human use. Retained by litigants and their legal counsel for professional assignments as an expert in Human Factors for public, private, and insurance clients. Named as a retained expert to investigate occupational accidents involving serious injuries and fatalities in various industries, including construction, manufacturing, and healthcare. Experience includes review of serious injuries and fatalities in public and commercial settings, including but not limited to hospitality, retail, industrial, residential, office, and other facilities.

CURRENT POSITION

President

Error Analysis, Inc.
San Diego County, CA (since 2017)

Presently the President and Principal Consultant for Error Analysis, Inc., a consultancy since 1994. Conducts field investigations, reviews case files, performs research, analyzes evidence, and delivers findings. Advises attorneys, risk managers, insurance professionals, municipalities, governmental agencies, and businesses. Consults and testifies in legal proceedings, predominantly in civil litigation. Oversees the firm's contracts and engagements, including proposal writing, budgeting, and client relations. Directs the staff and contractors. Has been retained as a subject-matter expert in legal cases in the United Kingdom, Ireland, and Singapore. Has been qualified and has testified as an expert in the Superior Court of California (El Dorado, Los Angeles, Monterey, Orange, Sacramento, San Bernardino, San Diego, Alameda), Superior Court of Arizona (Maricopa County), District Court of Nevada (Clark County), United States District Court (District of Nevada), and the Intertribal Court of Southern California (Sycuan Band of the Kumeyaay Nation).

Leads annual California facility safety audit at the Zamboni Company USA, Inc., Paramount, CA. Advised management during re-design and update of safety labels, decals, instructions, and signs for ice re-surfacing machines and ice rink edgers sold in the global marketplace. Prepared work product as part of a successful bid that placed ice re-surfacers at the 2018 Olympic Games in Pyeongchang, South Korea. Supported Canadian distributor in response to inquiry by the Occupational Safety Commission, Quebec, Canada.

PAST POSITIONS

Senior Consultant

Error Analysis, Inc.
San Diego, CA (2007-2017)

Was primary support of the firm's personnel engaged in forensic consulting and expert witness contracts in suits involving falls, crashes, collisions, and workplace accidents. Participated in reenactments and reconstructions. Researched case issues in the human factors and safety literatures. Also created policies, programs, plans, and procedures, records and documentation, workplace assessments and recommendations for ergonomic and other safety hazards and risk factors for the firm's clients.

Selected projects:

Facility Design – Co-led update of the Workplace Design chapters of the original 2003 Federal Aviation Administration's (FAA) Human Factors Design Standard under sub-contract, which consists of design criteria intended for new, modified, or updated systems that are managed by the FAA. Equipment and workstation layout, design of passageways, walkway and floor surfaces, accessible routes, landings, platforms, entrances and exits, doors and hinges, hatches, ramps, ladders, stairs, and ramps were included topics. *Intuitive Design Solutions, Arlington, VA (2014-2015)*.

Assessment of Walking and Working Surfaces – Performed slip tests on the floors in several areas of an Audi car dealership prior to its grand opening. *Dempsey Construction, Carlsbad, CA (2016)*.

Litigation Consultant and Expert Witness (Safety and Human Factors), Bike Crash – Studied the client organization and testified as a 30C (6) corporate witness about the company history and structure, the intended use of the helmet at issue, its design, including testing standards for safety, manuals, warnings, and all prior incidents involving the helmet line reported to the company. *Valencia Sport Group, Inc., San Diego, CA (2015)*.

Risk Analysis, Medical Device for Treatment of Parkinson's Disease – Oversaw a literature review on head bumping incidents for the purpose of input to a risk analysis by a start-up medical device manufacturer. Data was obtained for various scenarios in which contact was likely to occur between a patient's head and objects in the built environment. *Sapiens, Netherlands (2014)*.

Warnings and Safety Instructions, Motorcycle Clutch System – Reviewed existing warning and instructions for an auto-clutch system for Harley-Davidson branded motorcycles sold in the U.S. Led update of materials in which design input for safety information sheets, labels, and accessories for users to reduce the risk of runaway crash incidents was provided. *Rekluse, Boise, ID (2014)*.

Workstation Assessment, Television Network Operations Center – Conducted a workstation assessment involving six computer displays. Provided insight about the factors contributing to an operator's discomfort. Recommendations were developed based on the field work that involved observations and interviews. *Fox Television, Las Vegas, NV (2014)*.

Ergonomics Training and Workstation Assessment – Conducted a workstation assessment to address factors contributing to an operator's discomfort. Evaluated seating options. Provided recommendations based on field work that involved interviews and observations. *United States of America, Environmental Protection Agency, Las Vegas, NV (2013)*.

Workstation Assessment, Retail Stores – Conducted a workstation assessment involving worker interactions with computer systems at the point of sale. Evaluated suitable seating options. Provided recommendations based on field work that involved store visits, observations of people working, and structured interviews. *Game Stop Corporation, Fort Worth, TX (2012)*.

Ergonomics Training and Workstation Assessment – Trained employees to raise awareness of ergonomics issues. Conducted workstation assessments to address factors contributing to an operator's discomfort. Evaluated seating

options. Provided recommendations based on field work that involved interviews and observations. *United Brotherhood of Carpenters, Las Vegas, NV (2012)*.

EHS Audit, Regional Distribution Center – Led audit in warehouse. Topics included injury surveillance and recordkeeping, training, job hazard analysis, medical surveillance, and culture. Issues were identified during walkthroughs of the facility. Recommendations were made to address hazards and ergonomic risk factors. *Electrolux Home Products, North America, Ontario, CA (2009)*.

Job Safety Analysis, Power Plant – Co-led study of an unloading procedure involving a locomotive, rail cars, and a rotary car dumper. Analysis was performed following a major change in the unloading process, to understand the effects of re-locating the locomotive operator from the controls in the cab to the ground near the rail car knuckles with a hand-held controller. *Mirant Mid-Atlantic, Dickerson, MD (2008-2010)*.

Human Factors Study, Energy Construction – Co-led study of a line organization within an electric utility (Bronx-Westchester). A rigorous review was performed of the nature and causes of safety-related incidents that occurred over a three-year period. Determined the human factors relationship to the incidents and identified errors that were involved. Recommendations were developed to reverse the trend or prevent future occurrences. *Consolidated Edison of New York (2007-2008)*.

Associate Consultant

Error Analysis, Inc.
San Diego, CA (1997-2007)

While supporting senior personnel at Error Analysis, co-led several field projects while also pursuing education in applied-experimental psychology (human factors option), including:

EHS Program Plan Review - Reviewed a voluntary compliance program plan for office employees to identify and address ergonomics risk factors. *Boeing Company, Anaheim, CA (2005)*.

Cross-functional team - Performed speed of service assessment and evaluated ergonomics issues including equipment, tools, millwork, and store layouts. *The Coffee Bean & Tea Leaf, Los Angeles, CA (2004)*.

Organizational Development Specialist

City of San Diego, Metro Wastewater Department
San Diego, CA (2005-2006)

In fulfilling a second doctoral field placement requirement, under the direction of the Assistant Deputy Director, developed and implemented organizational development efforts including department strategic planning and optimization. Also supported citywide functional review of HR processes, including selection of police officers. Researched best management practices among various comparable government agencies. Evaluated the effectiveness of a health and injury management program designed to bring employees back to work safely and in a timely manner.

Research Associate

Pacific Science and Engineering Group, Inc.
San Diego, CA (2005)

In fulfilling a first field placement requirement, collected data, and performed analyses during a research study funded by the Office of Naval Research in the U.S. Department of Defense involving human attention, vigilance, and augmented cognition tools to combat negative effects of awareness failures such as change blindness in the domain of naval air warfare (see Smallman & St. John, 2003). Other projects included research in support of a small business innovation research (SBIR) proposal, heuristic (usability) evaluation of chat tools used by naval operators to monitor several concurrent text streams, and development of a web-based decision-making tool based on cultural models for use by leadership of multicultural coalition forces working together in the field.

Intern

A.S. Imada and Associates
Carmichael, CA (2001)

Created evaluation and testing protocol of ergonomic safety enhancements for purposes of food service productivity for the Aramark Corporation at Dodger Stadium in Los Angeles, CA. Developed food service metrics and supervised a research team of five graduate students who worked in the field to gather data in support of the effort. Analyzed data and delivered study findings for presentation with the firm's principal to management representatives from both organizations.

Self-Defense Instructor

Young Olympians
Tustin, CA (1994-1998)

Relying on martial arts training received as a youth from ages 10-17, and as a 1st degree black belt in kenpo karate, provided self-defense training to children ages 5-15 while managing classes and equipment sales. Was a referee in regional competitive tournaments involving children of all ranks that were held at the end of each term. Instruction occurred at locations in the greater Los Angeles and Inland Empire areas of southern California including Riverside, San Bernardino, Beaumont, Santa Clarita, Pacoima, and Inglewood.

EDUCATION

B.A. (Bachelor of Arts), Psychology (1997)
University of California, Riverside

M.A. (Master of Arts), Psychology, Human Factors and Applied-Experimental option (2000)
California State University, Northridge
Thesis topic: Allocation of responsibility for falls on stairs in simulated jury deliberations

M.S. (Master of Science), Industrial-Organizational Psychology (2005)
Alliant International University, San Diego

Ph.D. (Doctor of Philosophy), Industrial-Organizational Psychology, industrial emphasis track (2009)
Alliant International University, San Diego
Dissertation topic: Issues with integrating technology in managing human performance remotely
Outstanding Ph.D. in Industrial-Organizational Psychology award recipient

CERTIFICATIONS

CHFP, Certified Human Factors Professional #1037 (formerly CPE and AEP) (2002-Present)
Board of Certification in Professional Ergonomics

CHCM, Certified Hazard Control Manager #2834 (2000-Present)
International Board for Certification Services and Management

CXLT, Certified XL Tribometrist #100661 (2010-Present)
Excel Tribometers, LLC – Slipmeter science, technology, manufacture, service

MEMBERSHIPS

Human Factors and Ergonomics Society #16367 (since 1998)
Safety Technical Group

Forensics Professional Technical Group

American Society of Safety Professionals #010019528 (since 2012)

ASTM International #1471112 (since 2011)

F13 committee: Pedestrian/Walkway Safety and Footwear

13.50 sub-committee (Walkway surfaces); 13.10 sub-committee (Traction)

Participant lab, super inter-laboratory study (ILS) for F2508 validation and calibration (Apr 2024)

F15: Consumer Products

5.03 subcommittee (Safety Standards for Bathtub and Shower Structures) [inactive]

International Code Council #8390446 (since 2015)

ADDITIONAL TRAINING

Human Factors Accident and Classification System (HFACS) training course, Embry-Riddle Aeronautical University and HFACS, Inc., Las Vegas, NV (2 days)

Human Factors in Driving and Emergency Situations, Interactive Driver Response Research (IDRR) forum, Driver Research Institute, Atlanta, GA (2023) (3 days)

English XL tribometer training course, Excel Tribometers, LLC (2010) (2 days)

VOLUNTEER SERVICE

Instructor, American Colleges of Karate, El Cajon, CA (1993)

Research Assistant, University of California, Riverside, Riverside, CA (1997)

Lecture, Foothills Bar Association, El Cajon, CA (2000)

Lecture, Human Factors/Human Performance course, Alliant International University (2004)

Lecturer in Human Factors course, California State University, Northridge (2006-2010)

Lecture, Orange County Bar Association, Newport Beach, CA (2006)

Judge, Greater San Diego Science & Engineering Fair, San Diego, CA (2010-2012)

Expert for a mock trial, Thomas Jefferson School of Law, San Diego (2015)

Conference Judge, U.S. Military Academy, West Point, NY (April 2021)

Associate Editor, Ergonomics in Design, Sage Publications (2014-2018)

Chair, Alliance for Professional Practice of Human Factors/Ergonomics (2021-2023)

Board of Directors, Foundation for Professional Ergonomics (2021-2024)

Board of Directors, Temple Emanuel Synagogue, San Diego, CA (2023-Present)

Human Factors and Ergonomics Society:

Vice Chair, Host Committee, Annual Meeting (2013)

Budget & Finance Committee (appointed to fill vacancy) (2014)

Secretary/Treasurer, Forensics Professional Group (2016-2018)

Forensics Session Chair, annual meeting (2016, 2017, 2019)

Webmaster/Newsletter Editor, Forensics Professional Group (2011-2017)

Director, San Diego chapter (2014-2018)

Board of Certification in Professional Ergonomics:

Board of Directors (2011-2017)

Vice President (2013-2014)

President (2014-2015)

Certification Committee (2014-2021)

Certification Committee Chair (2016)

Peer-reviews:

Human Factors journal, Sage Publications
Theoretical Issue in Ergonomics Science journal, Taylor & Francis
Conference submissions, Forensic Professional Group, HFES
Conference submissions, Safety Technical Group, HFES
Conference submissions, Chartered Institute of Ergonomics and Human Factors (United Kingdom)

WRITINGS & PRESENTATIONS

1. Cohen, J. (2024). Forensic analysis of a traffic crash involving human factors in design and management of an industrial facility. Aspire meeting of the Human Factors and Ergonomics Society, Scottsdale, AZ.
2. Cohen, J. (2023). A forensic case study of a vehicle backing mishap. Poster, International Meeting of the Human Factors and Ergonomics Society, Washington, D.C.
3. Cohen, J., & Cohen, H. H. (2019). A truck driver's dilemma. In M.S. Wogalter (Ed.) *Forensic Human Factors and Ergonomics: Case Studies and Analyses* (pp. 271-281). Boca Raton, FL: CRC Press.
4. Cohen, J., LaRue, C., & Cohen, H. H. (2017). Attention interrupted: Cognitive distraction & workplace safety. *Professional Safety*, 62(11), 28-34.
5. Cohen, H. H., & Cohen, J. (2016). Fall forensics: Principles and applications. In Hsiao (Ed.) *Fall Prevention and Protection: Principles, Guidelines, and Practices*. CRC Press: Boca Raton, FL.
6. Cohen, J. (2011). The role of forensic organizational ergonomics. *Ergonomics in Design*, 19(1), 29-32.
7. Cohen, J., LaRue, C. A., & Cohen, H. H. (2010). Stairway falls: An ergonomics analysis of 80 cases. *Professional Safety*, 54(1), 27-32.
8. Cohen, J. (2009). The effects of performance monitoring and surveillance procedures on procedural justice, privacy invasion, and counterproductive behavioral intentions. Ph.D. dissertation.
9. Cohen, H. H., Cohen, J., Wogalter, M. S., & Mendat, C. (2006). Warning channel: Modality and media. In *Handbook of Warnings* (M. Wogalter, Ed.). Mahwah, NJ: Erlbaum, 123-134.
10. Cohen, H. H., & Cohen, J. (2004). Employee participation in a hospital hazard management system. *Ergonomics in Design*, 12(3), 31-18.
11. Cohen, J. (2000). The effect of human factors expert testimony and staircase design on allocation of responsibility in a premises liability case. Master's thesis, California State University, Northridge.
12. Cohen, J., & Cohen, H. H. (2001). Human factors in stairway fall litigation. *Ergonomics in Design*, 9(3), 19-24.
13. Nemire, K., Cohen, H. H., & Cohen, J. (Eds.) (2014). *The Human Factors and Ergonomics Society's Guide to Forensic Human Factors (1987-2012)*. Santa Monica, CA: Human Factors & Ergonomics Society.
14. Resnick, M., & Cohen, J. (2014). Workplace issues in forensic human factors. In *The Human Factors and Ergonomics Society's Guide to Forensic Human Factors (1987-2012)*. Santa Monica, CA: Human Factors and Ergonomics Society.
15. Martin, J. A., Cohen, J., & Stokes, A. (2018). Understanding and evaluating eyewitness recall of events. Human Factors and Ergonomics Society 2018 Annual Meeting, Philadelphia, PA.
16. Young, J., Muttart, J., Suway, J., & Cohen, J. (2017). Nighttime photography & videography: Techniques & tips. Human Factors and Ergonomics Society 2017 Annual Meeting, Austin, TX.

17. Cohen, J. (2015). Benefits of ergonomics certification and Q&A session. International Meeting of the Human Factors and Ergonomics Society, Los Angeles, CA.
18. Cohen, J. (2015). Ergonomics certification: A quick guide to getting certified. Ergo X, Anaheim, CA.
19. Kuzel, M., Cohen, H. H., Rauschenberger, R., & Cohen, J. (2013). Evaluation of mobile eye tracking for forensic analysis of pedestrian falls, 57th Annual Meeting of the Human Factors and Ergonomics Society.
20. Sloan, G.D., Nemire, K. E., Cohen, J., Resnick, M. L., & Cloutier, C. (2012). Examples of how to present human factors testimony to the trier of fact, 56th Annual Meeting of the Human Factors and Ergonomics Society.
21. Thompson, D., Cohen, H. H., & Cohen, J. (2011-2013). How to be an effective human factors/ergonomics expert witness workshop, 55th - 57th Annual Meetings of the Human Factors and Ergonomics Society.
22. Cohen, J. (2010). 10 human error myths. American Society of Safety Engineer's Rethink Safety: A New View of Human Error and Workplace Safety Symposium, San Antonio, TX.
23. Cohen, J., & Cohen, H. H. (2009). Spontaneous combustion of oil-based wood finishing products: Hidden or obvious hazard. 53rd Annual Meeting of the Human Factors and Ergonomics Society.
24. Cohen, J. (2009). The role of a just culture. Presentation at the American Society of Safety Engineer's Building a Successful Safety Culture Symposium, Costa Mesa, CA.
25. Halford, V., & Cohen, J. (2008). Cognitive reasoning in diabetes self-care and management. In the proceedings of Improving Patient Safety 2008: From Safe Design to Safe Practice, Cambridge, UK.
26. LaRue, C. A., Cohen, H. H., & Cohen, J. (2007). Limitations of Present Codes and Guidelines in the U.S. for Bleacher Safety in Preventing Fall Injuries. Presented at the International Conference on Slips, Trips, and Falls 2007: From Research to Practice at the Liberty Mutual Research Institute for Safety, Hopkinton, MA.
27. Cohen, J., & Cohen, H. H. (2007). Enhancing forensic human factors/ergonomics analyses using digital surveillance video, 51st Annual Meeting of the Human Factors and Ergonomics Society.
28. Cohen, J., & Imada, A. S. (2005). Ergonomic evaluation in a beverage and food service application. In the proceedings of the 49th Annual Meeting of the Human Factors and Ergonomics Society.
29. Cohen, J., & Cohen, H. H. (2005). A case study in macroergonomics, forensics and call center work. In the proceedings of the 49th Annual Meeting of the Human Factors and Ergonomics Society.
30. Cohen, J., Baniasadi, M., Womble, J., Flot, D. T., & Michael, P. G. (2005). An examination of electronic performance monitoring, procedural justice, and stress. Poster presented at the 20th Annual Conference of the Society for Industrial Organizational Psychology, Los Angeles, CA.
31. Cohen, J. & Cohen, H. H. (2001). Hold on! An observational study of staircase handrail use. In the proceedings of the 45th Annual Meeting of the Human Factors and Ergonomics Society.
32. Cohen, J. (1999). The effects of human factors expert testimony and staircase design on allocation of responsibility in a premises liability case. A poster presented at the 43rd Annual Meeting of the Human Factors and Ergonomics Society.