

# CIVIL AND CONSTRUCTION ENGINEERING

OREGON STATE UNIVERSITY

College of Engineering

**GAMBATESE, John A.**

Associate Professor

**BIRTH DATE**

November 12, 1964

## DEGREES

B.S., Civil Engineering, University of California at Berkeley, 1986

M.S., Civil Engineering, University of California at Berkeley, 1987

Ph.D., Civil Engineering, University of Washington, 1996

## ACADEMIC POSITIONS

Associate Professor, School of Civil and Construction Engineering, Oregon State University, Corvallis, OR, 2006-present

Assistant Professor, Department of Civil, Construction, and Environmental Engineering, Oregon State University, Corvallis, OR, September 2000-2006

Director, Construction Management Program, Department of Civil and Environmental Engineering, University of Nevada, Las Vegas, NV, 1998-2000

Assistant Professor, Department of Civil and Environmental Engineering, University of Nevada, Las Vegas, NV, 1997-2000

Acting Assistant Professor, Department of Civil Engineering, University of Washington, Seattle, WA, 1996-1997

## NON-ACADEMIC POSITIONS

Project Engineer, O'Brien-Kreitzberg & Associates, Seattle, WA, 1996-1997

Project Engineer, Degenkolb Engineers, San Francisco, CA, 1987-1993

Engineering Aid, Laugenour and Meikle, Civil Engineers, Woodland, CA, Summers 1984/1985

## FIELDS OF SPECIALIZATION

Construction Engineering and Management

Construction safety, constructability, sustainability, innovation, design-construction interface, lifecycle properties of constructed facilities, temporary construction structures

Structural Engineering

## PROFESSIONAL ACTIVITIES

### Registration

Professional Engineer, Civil, California (License No. 44727)

### Professional Societies

American Society of Civil Engineers (ASCE), Member, 1986-present

American Society of Safety Engineers (ASSE), Member, 2001-present  
Consortium of Universities for Research in Earthquake Engineering (CUREE), Member, 2001-present  
American Institute of Constructors (AIC), Associate Member, 1996-present  
Chi Epsilon, University of Washington Chapter, Member, 1995-present

### **Professional Recognition**

Corresponding Member, National Institute for Occupational Safety and Health (NIOSH) NORA Construction Workgroup, 2007-present.  
Member, Safety Community of Practice, Construction Industry Institute (CII), 2007-present.  
Member, External Project Review Community, Innovative Manufacturing and Construction Research Centre (IMCRC), Loughborough University, 2007-present.  
Manuscript Reviewer, *ASCE Journal of Construction Engineering and Management*, 2000-present.  
Manuscript Reviewer, *Construction Management and Economics*, 2004-present.  
Peer Professional, General Services Administration (GSA) National Register of Peer Professionals Program, two-year appointment, Dec. 2004 – Dec. 2006.  
Asst. Specialty Editor, Labor and Personnel Issues, *ASCE Journal of Construction Engineering and Management*, 2003-2006.  
Peer Professional in GSA's National Register of Peer Professionals Program, two-year appointment, Dec. 2004 – Dec. 2006.  
Session Moderator and Track Chair, *ASCE Construction Research Congress 2005*, San Diego, CA, April 5-7, 2005.  
Moderator, Constructability Sessions, Construction Institute Day, 2004 ASCE Annual Conference, Baltimore, MD, Oct. 20-22, 2004.  
Research Panel Member, *Research Priorities Meeting*, The Center to Protect Workers' Rights (CPWR), Silver Spring, MD, Apr. 4, 2003.  
Track Coordinator, "Trends in Project Management" track, *2003 Construction Research Congress*, sponsored by ASCE, Honolulu, HI, March 19-21, 2003.  
Panelist, *The People's Law School 2000*, Nevada Foundation for Consumer Education, Carson City, NV, May 19, 2000  
Technical Paper Reviewer, *Proceedings of the American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, February 20-22, 2000  
Session Moderator, *American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, February 20-22, 2000  
Accreditation Site Visit Team Member – Member-in-Training, American Council for Construction Education (ACCE) review of Construction Management Program at University of New Mexico, September 1999.  
Session Moderator, *8<sup>th</sup> Annual Construction Safety Conference*, Construction Safety Council, Chicago, IL, February 1998  
University:  
Faculty Advisor, Associated General Contractors (AGC) Student Chapter, Oregon State University, 2003-2006  
Faculty Advisor, Engineers Without Borders (EWB) Student Chapter, Oregon State University, 2005-present  
Graduate Coordinator, Department of Civil, Construction and Environmental Engineering, 2004-2006.

### **Committees, Commissions, and Boards**

American Society of Civil Engineers (ASCE):

Prevention through Design Committee, Member 2007-present, Chair, 2007-present  
Constructability Committee, Member 2002-present, Chair, 2002-2004  
Construction Research Council, Member, 1999-present  
Construction Site Safety Committee, Member, 1999-present  
Temporary Structures Committee, Member, 2004-present  
Member of Planning Committee and Rapporteur for Research Functional Area, National Institute for Occupational Safety and Health (NIOSH) *Prevention through Design Workshop*, Washington, DC, July 9-11, 2007.  
Member, National Institute for Occupational Safety and Health (NIOSH) *NORA Construction Workgroup*, 2007-present.  
Member, *Safety Community of Practice*, Construction Industry Institute (CII), 2007-present.  
Member, *External Project Review Community*, Innovative Manufacturing and Construction Research Centre (IMCRC), Loughborough University, 2007-present.  
Scientific and Technical Committee Member, *International Conference on Global Unity for Safety & Health in Construction*, sponsored by the International Council for Research and Innovation in Building and Construction (C.I.B.) W99 Working Commission and Tsinghua University, Beijing, China, June 28-30, 2006.  
Planning Committee Member and Manuscript Reviewer, *Designing for Safety and Health in Construction Research and Practice Symposium*, sponsored by: University of Oregon; Center to Protect Workers' Rights; National Institute for Occupational Safety and Health; Oregon State University; and Industrial Design and Construction, Portland, OR, Sept. 15-16, 2003.  
Review Panel Member, National Institute for Occupational Safety and Health (NIOSH) National Occupational Research Agenda (NORA) Intervention Effectiveness Program (#OH-00-002), June 2000  
Research Panel Member, *Research Forum on Intervention Research in the Construction Industry*, The Center to Protect Workers' Rights (CPWR), Cambridge, MA, March 30-31, 2000  
Review Panel Member, National Institute for Occupational Safety and Health (NIOSH) National Occupational Research Agenda (NORA) Intervention Effectiveness Program (#99150), August 1999  
University:  
Curriculum Committee, Department of Civil, Construction and Environmental Engineering, Oregon State University, 2000-2001, and 2003-2007  
Graduate Committee, Department of Civil, Construction and Environmental Engineering, Oregon State University. Member, 2001-2002; Chair, 2002-2003, 2004-2006.  
Member, College of Engineering Graduate Council, Oregon State University, 2005-present.

### **Honors and Awards**

2003 Loyd Carter Award for outstanding and inspirational teaching, presented by the Oregon State University College of Engineering  
2002-2003 Dennis Marker Teacher of the Year Award for faculty teaching in the OSU CEM program, presented by the Oregon State University AGC Student Chapter  
2000-2001 Dennis Marker Teacher of the Year Award for faculty teaching in the OSU CEM program, presented by the Oregon State University AGC Student Chapter  
1995 American Institute of Constructors' (AIC) Student Essay Contest, second place:  
Gambatese, J.A. and Pulick, M.L. (1996). "Future Information Highway Technologies in the Construction Industry"  
Outstanding Tutor of the Year Award, Athletic Study Center, University of California at Berkeley, 1990

## PUBLICATIONS

### Books and Book Chapters

- Hecker, S., Gambatese, J., and Weinstein, M., Editors (2004). *Designing for Safety and Health in Construction*, Eugene, OR: University of Oregon Press. *Proceedings of the Designing for Safety and Health in Construction Research and Practice Symposium*, sponsored by: University of Oregon; Center to Protect Workers' Rights; National Institute for Occupational Safety and Health; Oregon State University; and Industrial Design and Construction, Portland, OR, Sept. 15-16, 2003.
- Gambatese, J.A. (2004). "What's Wrong (or Right) About Incentives." Chapter 8 in *Construction Safety Management and Engineering*, edited by Darryl C. Hill. Des Plaines, IL: American Society of Safety Engineers (ASSE), 122-137.
- Gambatese, J.A. (2003, 1997). "Computer Scheduling." Chapter 9 in *Construction Planning and Scheduling*, 2<sup>nd</sup> Edition, by Jimmie W. Hinze, 209-224; Chapter 10 in 1<sup>st</sup> Edition, 224-238. Upper Saddle River, NJ: Prentice-Hall, Inc.
- Gambatese, J.A. (2000). "Designing for Safety." Chapter 8 of *Construction Safety and Health Management*, Edited by Coble, R.J, Hinze, J.W, and Haupt, T.C., Prentice-Hall, Inc., Upper Saddle River, NJ, pp. 169-192.

### Technical Journals (Refereed)

- Gambatese, J.A., Rajendran, S., and Behm, M.G. (2007). "Green Design & Construction: Understanding the Effects on Construction Worker Safety and Health." *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 52(5), 28-35.
- Rajendran, S. and Gambatese J.A. (2007). "Solid Waste Generation in Asphalt and Reinforced Concrete Roadway Life Cycles." *Journal of Infrastructure Systems*, ASCE, 13(2), 88-96.
- Gambatese, J.A. (2006). "Current Practice for Illuminating Flaggers during Nighttime Roadway Construction Operations." Special Issue on "Best Practices for Construction Safety", Ed.: Hinze, J., *International e-Journal of Construction*, University of Florida, M.E. Rinker School of Building Construction, March 2006.
- Pocock, J.B., Kuennen, S.T., Gambatese, J., and Rauschkolb, J. (2006). "Constructability State of Practice Report." *Journal of Construction Engineering and Management*, ASCE, 132(4), 373-383.
- Weinstein, M., Gambatese, J., and Hecker, S. (2005). "Can Design Improve Construction Safety: Assessing the Impact of a Collaborative Safety-in-Design Process." *Journal of Construction Engineering and Management*, ASCE, 131(10), 1125-1134.
- Hecker, S., Gambatese, J., and Weinstein, M. (2005). "Designing for Worker Safety: Moving the Construction Safety Process Upstream." *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 50(9), 32-44.
- Gambatese, J., Behm, M., and Hinze, J. (2005). "Viability of Designing for Construction Worker Safety." *Journal of Construction Engineering and Management*, ASCE, 131(9), 1029-1036.
- Dunston, P.S., Gambatese, J.A., and McManus, J.F. (2005). "Assessing State Transportation Agency Constructibility Implementation." *Journal of Construction Engineering and Management*, ASCE, 131(5), 569-578.
- Zapata, P. and Gambatese, J.A. (2005). "Energy Consumption of Asphalt and Reinforced Concrete Pavement Materials and Construction." *Journal of Infrastructure Systems*, Special Issue: Sustainability of Transportation and Other Infrastructure Systems, ASCE, 11(1), 9-20.
- Gambatese, J.A. (2003). "Safety Emphasis in University Engineering and Construction Programs." Special Issue on "Construction Safety Education and Training – A Global Perspective", Ed.:

- Hinze, J., *International e-Journal of Construction*, University of Florida, M.E. Rinker School of Building Construction, May 2003.
- Borg, R.F., Gambatese, J.A., Haines, K., Hendrickson, C., Hinze, J., Horvath, A., Koehn, E., Moritz, S., Mass, M., and Haughney, R.A. (2003). "Rebuilding the World Trade Center." *Practice Periodical on Structural Design and Construction*, ASCE, 8(3), 137-145.
- Hinze, J.W. and Gambatese, J.A. (2003). "Factors that Influence the Safety Performance of Specialty Contractors." *Journal of Construction Engineering and Management*, ASCE, Vol. 129, No. 2, pp. 159-164.
- Gambatese, J.A. (2003). "Controlled Concrete Demolition Using Expansive Cracking Agents." *Journal of Construction Engineering and Management*, ASCE, Vol. 129, No. 1, pp. 98-104.
- Toole, T.M. and Gambatese, J.A. (2002). "Primer on Federal Occupational Safety and Health Administration Standards." *Practice Periodical on Structural Design and Construction*, ASCE, Vol. 7, No. 2, pp. 56-60.
- Gambatese, J.A. and James, D.E. (2001). "Dust Suppression Using a Truck-Mounted Water Spray System." *Journal of Construction Engineering and Management*, ASCE, Vol. 127, No. 1, pp. 53-59.
- Gambatese, J.A. and Hinze, J.W. (2001). "Computer-Assisted Safety Training to Evaluate Construction Site Hazards." *International Journal of Computer-Integrated Design and Construction (CIDAC)*, SETO, London, England, Vol. 3, No. 1, pp. 42-51.
- Gambatese, J.A. and Hinze, J.W. (2000). "Computer Software for Construction Practice and Education." *The American Professional Constructor*, Journal of the American Institute of Constructors, (AIC), Vol. 24, No. 1, pp. 6-11.
- Gambatese, J.A. and Hinze, J.W. (1999). "Addressing Construction Worker Safety in the Design Phase: Designing for Construction Worker Safety." *Automation in Construction*, Elsevier Science B.V., Amsterdam, The Netherlands, Vol. 8, Issue 6, pp. 643-649.
- Gambatese, J.A. (1998). "Liability in Designing for Construction Worker Safety." *Journal of Architectural Engineering*, ASCE, Vol. 4, No. 3, pp. 107-112.
- Gambatese, J.A. and McManus, J.F. (1997). "Constructability: A Quality Improvement Approach to Transportation Projects." *Transportation Research Record*, No. 1575, pp. 116-120.
- Gambatese, J.A., Hinze, J.W., and Haas, C.T. (1997). "A Tool to Design for Construction Worker Safety." *Journal of Architectural Engineering*, ASCE, Vol. 3, No. 1, pp. 32-41.
- Gambatese, J.A. and Pulick, M.L. (1996). "Future Information Highway Technologies in the Construction Industry." *The American Professional Constructor*, Journal of the American Institute of Constructors (AIC), Vol. 20, No. 1, pp. 12-17.

#### **Conference Proceedings (Refereed)**

- Hallowell, M. and Gambatese, J. (2007). "A Formal Model for Construction Safety Risk Management." *Construction and Building Research Conference (COBRA)*, sponsored by the Royal Institution of Chartered Surveyors and Georgia Tech University, Atlanta, GA, Sept. 6-7, 2007.
- Gambatese, J.A. and Hallowell, M. (2007). "Benchmark of Innovation in the Architecture/Engineering/Construction Industry." *Proceedings of the 2007 Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- Toole, T. Michael and Gambatese, J.A. (2007). "The Future of Designing for Construction Safety." *Proceedings of the 2007 Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- Gambatese, J.A. and Rajendran, S. (2007). "Sustainable Construction Safety and Health Rating System – A Feasibility Study." *Proceedings of the 2007 ASCE Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.

- Hecker, S.F., Gambatese, J.A., and Weinstein, M. (2006). "Designing for Construction Safety in the U.S.: Progress, Needs, and Future Directions." *IEA2006, 16<sup>th</sup> World Congress on Ergonomics*, International Ergonomics Association (IEA), Maastricht, The Netherlands, July 10-14, 2006.
- Gambatese, J.A., Behm, M., and Rajendran, S. (2006). "Additional Evidence of Design's Influence on Construction Fatalities." *International Conference on Global Unity for Safety & Health in Construction*, sponsored by the International Council for Research and Innovation in Building and Construction (C.I.B.) W99 Working Commission and Tsinghua University, Beijing, China, June 28-30, 2006.
- Gambatese, J.A. and Rajendran, S. (2005). "Sustainable Roadway Construction: Energy Consumption and Material Waste Generation of Roadways." *Proceedings of the Construction Research Congress 2005*, San Diego, CA, April 5-7, 2005. Reston, VA: ASCE, 104-110.
- In *Designing for Safety and Health in Construction*, Hecker, S., Gambatese, J., and Weinstein, M., Editors (2004). Eugene, OR: University of Oregon Press.
- Hecker, S., Gambatese, J., and Weinstein, M. "Introduction," 1-10.
- Gambatese, J.A., Behm, M., and Hinze, J.W. "Pilot Study of the Viability of Designing for Construction Worker Safety," 22-43.
- Gambatese, J.A. "An Overview of Design-for-Safety Tools and Technologies," 109-117.
- Hecker, S., Gambatese, J., and Weinstein, M. "Life Cycle Safety: An Intervention to Improve Construction Worker Safety and Health Through Design," 212-241.
- Weinstein, M., Gambatese, J., and Hecker, S. "Outcomes of a Design-for-Safety Process: A Case Study of a Large Capital Project," 242-263.
- Hecker, S., Gambatese, J., and Weinstein, M. "The Way Forward for Design for Construction Safety and Health: Industry Perspectives," 301-307.
- Pocock, J.B., Kuennen, S.T., Gambatese, J.A., and East, W.W. (2004). "Constructability State of Practice Survey." *Proceedings of the Specialty Conference on Management and Leadership in Construction*, Hilton Head Island, SC, March 25-26, 2004. Reston, VA: Construction Institute's Construction Research Council, ASCE.
- Gambatese, J.A., Behm, M., and Hinze, J. (2003). "Engineering Mandates Stipulated in OSHA Regulations." *Proceedings of the 2003 Construction Research Congress*, sponsored by ASCE, Honolulu, HI, March 19-21, 2003.
- Gambatese, J.A. and Dunston, P.S. (2003). "Designer Consideration of Project Lifecycle Performance." *Proceedings of the 2003 Construction Research Congress*, sponsored by ASCE, Honolulu, HI, March 19-21, 2003.
- Gambatese, J.A. (2000). "Safety Constructability: Designer Involvement in Construction Site Safety." *Proceedings of the American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, February 20-22, 2000, pp. 650-660.
- Gambatese, J.A. (2000). "Owner Involvement in Construction Site Safety." *Proceedings of the American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, February 20-22, 2000, pp. 661-670.
- Opfer, N.D. and Gambatese, J.A. (1999). "Temporary Construction Structures Coursework." *Proceedings of the 35<sup>th</sup> Annual Conference of the Associated Schools of Construction (ASC)*, San Luis Obispo, CA, April 7-10, 1999, pp. 231-239.
- Gambatese, J.A. and Hinze, J.W. (1997). "A Guide for Safety Inspections." *Safety & Health on Construction Sites*, C.I.B. Working Commission 99, Pub. #209, pp. 42-52. Publication #209 contains selected papers from the *Proceedings of the First International Conference of C.I.B. Working Commission 99, International Conference on Implementation of Safety and Health on Construction Sites*, Lisbon, Portugal, September 4-7, 1996.
- Hinze, J.W. and Gambatese, J.A. (1996). "Design Decisions that Impact Construction Worker Safety." *Safety & Health on Construction Sites: International State of the Art Reports*, C.I.B.

Working Commission 99, Pub. #187, pp. 219-231. Publication #187 contains selected papers from the *Proceedings of the International Symposium for the Organization and Management of Construction: Shaping Theory and Practice (Volume Two)*, C.I.B. Working Commission 65, Organisation & Management of Construction Symposium, Glasgow, Scotland, U.K., August 28-September 3, 1996.

#### **Other Publications (Refereed)**

Gambatese, J.A., Pocock, J.B., and Dunston, P.S., Editors (2007). *Constructability Concepts and Practice*, Construction Institute, ASCE, Reston, VA.

Gambatese, J.A. "Foreword and Acknowledgments."

Gambatese, J.A., Dunston, P.S., and Pocock, J.B. "Introduction."

Gambatese, J.A. and Dunston, P.S. "Constructability as a Lifecycle Property."

Dunston, P.S., Gambatese, J.A., and McManus, J.F. "A Cost and Benefit Model for Constructability Review Implementation."

Gambatese, J.A., Dunston, P.S., and Pocock, J.B. "The Way Forward: Recommendations for Future Constructability Research and Practice."

#### **Conference Proceedings**

Gambatese, J.A., Rajendran, S., and Behm, M.G. (2006). "Building toward Sustainable Safety and Health." *Proceedings of the ASSE Professional Development Conference*, Seattle, WA, June 11-14, 2006.

Gambatese, J.A. and Mroszczyk, J.W. (2006). "Designing for Construction Worker Safety." *Proceedings of the ASSE Professional Development Conference*, Seattle, WA, June 11-14, 2006.

Gambatese, J. and Behm, M. (2006). "A Pilot Study of Design Professionals' Perceived Feasibility of the Design for Construction Safety Intervention." *NORA Symposium 2006: Research Makes a Difference*, National Institute for Occupational Safety and Health (NIOSH), Washington, D.C., April 18-20, 2006. (Poster)

Behm, M. and Gambatese, J. (2006). "Design Decisions as Causal Influences in Construction Fatalities." *NORA Symposium 2006: Research Makes a Difference*, National Institute for Occupational Safety and Health (NIOSH), Washington, D.C., April 18-20, 2006. (Poster)

Hecker, S.H. and Gambatese, J.A. (2004). "Training Students for Design Safety in Construction." *Proceedings of the ASSE Professional Development Conference & Exposition*, Las Vegas, NV, June 7-10, 2004.

Hecker, S., Gambatese, J., Weinstein, M., Barsotti, A., and Gibbons, B. (2003). "Life Cycle Safety: An Intervention to Improve Construction Worker Safety and Health Through Design." *National Occupational Injury Research Symposium*, National Institute of Occupational Safety and Health (NIOSH), Pittsburgh, PA, Oct. 28, 2003.

Dunston, P.S., Gambatese, J.A., and McManus, J.F. (2003). "Benefit-Cost Model for Highway Department Constructibility Reviews." *82<sup>nd</sup> Annual Meeting of the Transportation Research Board (TRB)*, Washington, D.C., Jan. 12-16, 2003.

Hewitt, M.M. and Gambatese, J.A. (2002). "Automation Consideration During Project Design." *International Symposium on Automation and Robotics in Construction (ISARC)*, Washington, D.C., Sept. 23-25, 2002.

Opfer, N., Son, J., and Gambatese, J. (2001). "A Graduate Seminar In Construction." *Proceedings of the 2001 American Society for Engineering Education (ASEE) Annual Conference & Exposition*, Albuquerque, NM, June 24-27, 2001.

Opfer, N., Son, J., and Gambatese, J. (2001). "Project Labor Agreements for Public Agencies". *45<sup>th</sup> Association for the Advancement of Cost Engineering (AACE) Annual Conference*, Pittsburgh, PA, June 17-20, 2001.

- Gambatese, J.A. (2000). "Designing for Safety: It Starts with Education." *Proceedings of the Designing for Safety and Health Conference*, sponsored by C.I.B. Working Commission 99 and the European Construction Institute, London, England, June 26-27, 2000.
- Gambatese, J.A. and Opfer, N.D. (1999). "Starting a Master's Degree Program in Construction." *Proceedings of the 1999 ASEE Annual Conference and Exposition*, American Society for Engineering Education (ASEE), Charlotte, NC, June 20-23, 1999.
- Gambatese, J.A. and Stewart, P.J. (1999). "Application of Risk Mapping to Construction Project Jobsites." *Proceedings of the Second International Conference of C.I.B. Working Commission 99, Implementation of Safety and Health on Construction Sites*, Honolulu, HI, March 24-27, 1999. Balkema, Rotterdam, pp. 785-792.
- Gambatese, J.A. and Batista, J.R. (1999). "Developing and Providing Valuable Engineering Education Experiences." *Proceedings of the 1999 Annual Meeting and Conference of the American Society for Engineering Education (ASEE) Pacific Southwest Section*, Las Vegas, NV, March 19-20, 1999, pp. 93-100.
- Gambatese, J.A. and McManus, J.F. (1997). "Constructability: A Quality Improvement Approach to Transportation Projects." Transportation Research Board, National Research Council, Washington, DC, January 12-16, 1997.
- Gambatese, J.A. and Hinze, J.W. (1996). "A Guide for Safety Inspections." *Proceedings of the First International Conference of C.I.B. Working Commission 99, International Conference on Implementation of Safety and Health on Construction Sites*, Lisbon, Portugal, September 4-7, 1996. Balkema, Rotterdam, pp. 553-563.
- Hinze, J.W. and Gambatese, J.A. (1996). "Using Injury Statistics to Develop Accident Prevention Programs." *Proceedings of the First International Conference of C.I.B. Working Commission 99, International Conference on Implementation of Safety and Health on Construction Sites*, Lisbon, Portugal, September 4-7, 1996. Balkema, Rotterdam, pp. 117-127.
- Gambatese, J.A. and Hinze, J.W. (1996). "Addressing Construction Worker Safety in the Design Phase." *Proceedings of the International Symposium for the Organization and Management of Construction: Shaping Theory and Practice (Volume Two)*, C.I.B. Working Commission 65, Organisation & Management of Construction Symposium, Glasgow, Scotland, U.K., August 28-September 3, 1996. E&FN Spon, London, pp. 871-880.
- Gambatese, J.A., Goodrum, P., Hinze, J.W., and Haas, C.T. (1995). "A Multimedia Design for Safety Tool for Road Construction." Transportation Research Board, National Research Council, Washington, DC, January 22-28, 1995.
- Hinze, J.W. and Gambatese, J.A. (1994). "Design Decisions that Impact Construction Worker Safety." *Proceedings of the Fifth Annual Rinker International Conference Focusing on Construction Safety and Loss Control*, University of Florida, Gainesville, FL, October 12-14, 1994.

### Reports and Other Publications

- Rajendran, S. and Gambatese, J.A. (2006). "Sustainable Construction Safety and Health." *Means, Methods, and Trends*, on-line journal of the Architectural Engineering Institute (AEI) and Construction Institute (CI) of ASCE. <[http://www.mmtmagazine.org/fall\\_2005\\_6\\_raj.html](http://www.mmtmagazine.org/fall_2005_6_raj.html)>, Jan. 5, 2006.
- Gambatese, J.A. (2005). "Optimum Illumination for Nighttime Flagger Operations," Research Project SPR 617 Report. Oregon Department of Transportation (ODOT) and U.S. Department of Transportation, Federal Highway Administration (FHWA), Report No. FHWA-OR-RD-06-05, August 2005.
- Gambatese, J.A. (2005). "Improving Construction Safety through a Project's Design: Implementing the Concept in Practice (Part 2 of 2)." *Means, Methods, and Trends*, on-line journal of the

- Architectural Engineering Institute (AEI) and Construction Institute (CI) of ASCE. <<http://www.mmtmagazine.org/archives/summer05.html>>, Sept. 12, 2005.
- Gambatese, J.A. (2005). "Improving Construction Safety through a Project's Design: The Impact of Design on Safety (Part 1 of 2)." *Means, Methods, and Trends*, on-line journal of the Architectural Engineering Institute (AEI) and Construction Institute (CI) of ASCE. <<http://www.mmtmagazine.org/archives/spring05.html>>, May 17, 2005.
- Gambatese, J.A., Hinze, J., and Behm, M. (2005). "Investigation of the Viability of Designing for Safety." The Center to Protect Workers' Rights (CPWR), Silver Spring, MD. <[http://www.cpwr.com/pdfs/pubs/research\\_pubs/kgambatese.pdf](http://www.cpwr.com/pdfs/pubs/research_pubs/kgambatese.pdf)>, May 16, 2005.
- Hecker, S. and Gambatese, J. (2003). "Safety in Design: A Proactive Approach to Construction Safety and Health." *Applied Occupational and Environmental Hygiene*, American Conference of Governmental Industrial Hygienists, 18(5), 339-342.
- Dunston, P.S., McManus, J.F., and Gambatese, J.A. (2002). "Cost/Benefits of Constructibility Reviews." Research summary brochure (Research Project 20-7, Task 124), National Cooperative Highway Research Program (NCHRP).
- Gambatese, J.A. and Dettwyler, K. (2002). "Oregon Public Contracting Coalition Guide to CM/GC Contracting." Oregon Columbia Chapter of the Associated General Contractors (AGC), Wilsonville, OR.
- Gambatese, J.A. (2000). "Safety in a Designer's Hands." *Civil Engineering*, ASCE, Vol. 70, No. 6, pp. 56-59.
- Gambatese, J.A. (1999). "Getting to Zero Accidents." *Construction Connection*, Associated General Contractors (AGC), Las Vegas Chapter, Vol. 13, No. 8, pg. 29.
- Gambatese, J.A. (1998). "Construction Safety Liability in the Design Phase." *Construction Safety News*, Construction Safety Council, Vol. 9, No. 1, pp. 6-9.
- Gambatese, J.A. (1998). "Construction Education at UNLV." *Nevada Construction and Mining*, Nevada Contractors Association, Vol. IV, Issue 3, pg. 7.
- Gambatese, J.A. (1998). "What's New in Safety." *Nevada Construction and Mining*, Nevada Contractors Association, Vol. IV, Issue 1, pp. 7-8.
- Gambatese, J.A. (1998). "Using Computers for Scheduling Construction Projects." *Nevada Construction and Mining*, Nevada Contractors Association, Vol. III, Issue 11, pp. 7, 27.
- Gambatese, J.A. and Hinze, J.W. (1997). "A Designer's Influence on Construction Worker Safety." *Construction Safety News*, Construction Safety Council, Vol. 8, No. 3, pp. 15-19.

## PROFESSIONAL PRESENTATIONS

- "Benchmark of Innovation in the Architecture/Engineering/Construction Industry." *2007 Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- "Sustainable Construction Safety and Health Rating System – A Feasibility Study." *2007 Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- "Energizing Innovation in Integrated Project Delivery." *US Army Corps of Engineers 2007 Northwestern Division Construction Phase Project Delivery Team Conference*, Corvallis, OR, May 1-3, 2007.
- "Energizing Innovation in Integrated Project Delivery: Preliminary Findings and Future Directions." *2006 Design-Build Institute of America (DBIA) Conference and Expo*, Nashville, TN, Oct. 18-20, 2006.
- "Building toward Sustainable Safety and Health." *ASSE Professional Development Conference*, Seattle, WA, June 11-14, 2006.
- "Designing for Construction Worker Safety." *ASSE Professional Development Conference*, Seattle, WA, June 11-14, 2006.
- "Design for Construction Safety: Moving Safety Decisions Upstream." Parsons Corporation, Corporate

- Safety Managers Meeting, Miami, FL, April 25, 2006; and Winter 2006 Corporate Partners Program, OSU Department of Public Health, March 17, 2006.
- “Incentives to Get Safety into the Engineering Curriculum.” 6<sup>th</sup> Annual Hazard Information Foundation, Inc. (HIFI) Safety Workshop, Sierra Vista, AZ, Feb. 23-24, 2006.
- “Constructability State of Practice, Benefits, and Barriers.” ASCE Capital Branch meeting, Salem, OR, April 28, 2005.
- “Sustainable Roadway Construction: Energy Consumption and Material Waste Generation of Roadways.” *Construction Research Congress 2005*, sponsored by ASCE, San Diego, CA, April 5-7, 2005.
- “Training Students for Design Safety in Construction.” *ASSE Professional Development Conference & Exposition*, Las Vegas, NV, June 7-10, 2004.
- “Project Delivery Methods & Safety in Design,” co-presenter with Greg Baker, OSU. *Joint Meeting of AACE – Cascade Section and ASCE – Oregon Section*, Portland, OR, May 18, 2004.
- “Engineers’ Role in Designing for Safety.” *ASCE Annual Conference and Exposition*, Nashville, TN, Nov. 12-14, 2003.
- In *Designing for Safety and Health in Construction Symposium*, Portland, OR, Sept. 15-16, 2003. Sponsored by: University of Oregon; Center to Protect Workers’ Rights; National Institute for Occupational Safety and Health; Oregon State University; and Industrial Design and Construction:
- “Pilot Study of the Viability of Designing for Construction Worker Safety.”
  - “Design for Safety/Health Tools and Technologies.”
  - “Safety Emphasis in University Engineering and Construction Program Curricula in the U.S.”
- “Construction Safety Research.” *Mega Projects of the West Coast II Safety Seminar*, sponsored by ASCE Construction Institute, Berkeley, CA, Aug. 21, 2003.
- “Engineering Mandates Stipulated in OSHA Regulations.” *Proceedings of the 2003 Construction Research Congress*, Honolulu, HI, March 19-21, 2003. Sponsored by ASCE.
- “Designer Consideration of Project Lifecycle Performance.” *Proceedings of the 2003 Construction Research Congress*, Honolulu, HI, March 19-21, 2003. Sponsored by ASCE.
- “Controlling Hazardous Noise on Construction Jobsites.” *Oregon Governor’s Occupational Safety & Health Conference*, Portland, OR, Mar. 3-6, 2003.
- “Constructor Involvement in Safety in Design.” *13<sup>th</sup> Annual Construction Safety Conference & Exposition*, Chicago, IL, Feb. 11-13, 2003. Sponsored by the Construction Safety Council.
- “Benefit-Cost Model for Highway Department Constructibility Reviews.” *82<sup>nd</sup> Annual Meeting of the Transportation Research Board (TRB)*, Washington, D.C., Jan. 12-16, 2003.
- “Life Cycle Analysis: Concrete and Asphalt in Paving.” *Sustainable Construction Practices: Concrete and Asphalt Conference*, Portland, OR, Dec. 3-4, 2002. Sponsored by the Oregon State University College of Engineering.
- “Designing for Construction: Achieving Project Success through Constructability.” ASCE Oregon Section, Host-A-Student Dinner, Corvallis, OR Nov. 21, 2002.
- “The Next Industrial Revolution: Improving Urban Place and the Working Ecology Through Sustainable Design and Development.” *130<sup>th</sup> Annual Meeting & Exposition of the American Public Health Association (APHA)*, Philadelphia, PA, Nov. 9-13, 2002. (Invited, panel presentation).
- “Automation Consideration During Project Design.” *International Symposium on Automation and Robotics in Construction (ISARC)*, Washington, D.C., Sept. 23-25, 2002.
- “Life Cycle Safety: A Partnership for Improving Safety through Design.” *12<sup>th</sup> Annual Construction Safety & Health Conference*, Chicago, IL, May 21-23, 2002. Sponsored by the Construction Safety Council (CSC) and Center to Protect Workers’ Rights (CPWR).
- “Managing Construction Safety From Project Concept to Completion.” *10<sup>th</sup> Biennial Cascade Safety, Health & Environmental Conference*, Eugene, OR, March 12-13, 2002. Sponsored by OR-OSHA and the Cascade Chapter of the American Society of Safety Engineers (ASSE).

- “Construction Engineering Management at Ground Zero.” *OSU Over Lunch*, Portland, OR, Nov. 15, 2001.
- “Safety in Design Research.” *At the Leading Edge: Moving Ahead in Construction Safety Management Conference*, Portland, OR, May 31, 2001, Sponsored by the Labor Education and Research Center, University of Oregon.
- “The Future of Construction Safety and Health: A Focus on Education and Research.” Columbia-Willamette Chapter of the American Society of Safety Engineers (ASSE), monthly dinner meeting, Portland, OR, March 12, 2001.
- “Construction Safety Management: From Project Conception to Completion.” *Oregon Governor’s Occupational Safety & Health Conference*, Portland, OR, March 5-8, 2001.
- “Owner & Designer Roles in Safety.” *11<sup>th</sup> Annual Construction Safety Conference*, Construction Safety Council, Chicago, IL, February 6-8, 2001.
- “Getting to Zero Accidents.” *11<sup>th</sup> Annual Construction Safety Conference*, Construction Safety Council, Chicago, IL, February 6-8, 2001.
- “Safety Constructability: Designer Involvement in Construction Site Safety.” *American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, February 20-22, 2000.
- “Owner Involvement in Construction Site Safety.” *American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, February 20-22, 2000.
- “Owner and Designer Roles in Site Safety.” *10<sup>th</sup> Annual Construction Safety Conference*, Construction Safety Council, Chicago, IL, February 15-17, 2000.
- “Safety Toolbox for Designers.” *10<sup>th</sup> Annual Construction Safety Conference*, Construction Safety Council, Chicago, IL, February 15-17, 2000.
- “Using a Water Spray System on Trucks to Suppress Dust.” *Air Quality Issues Associated with Waste Management Conference*, Air & Waste Management Association, Las Vegas, NV, September 15-17, 1999.
- “Application of Risk Mapping to Construction Project Jobsites.” *2<sup>nd</sup> International Conference on Implementation of Safety and Health on Construction Sites*, C.I.B. Working Commission 99, Honolulu, HI, March 24-27, 1999.
- “Developing and Providing Valuable Engineering Education Experiences.” *1999 Annual Meeting and Conference of the American Society for Engineering Education (ASEE) Pacific Southwest Section*, Las Vegas, NV, March 19-20, 1999.
- “Owners, Architects, Design Engineers, Contractors: Who’s Responsible for Safety?” *9<sup>th</sup> Annual Construction Safety Conference*, Construction Safety Council, Chicago, IL, February 10-12, 1999.
- “Project Management.” *1999 National Association of Store Fixture Manufacturers Project Management Seminar*, Las Vegas, NV, January 28-29, 1999.
- “Energy Efficient Homes Using Passive Solar Strategies.” *GlobeEx/Nevada Future Technical Innovations Roundtable*, Las Vegas, NV, October 26, 1998. Poster presentation.
- “Energy Efficient Home Construction Issues.” *Nevada Science and Technology Symposium*, Las Vegas, NV, January 8-9, 1998. Poster presentation.
- “A Designer’s Influence on Construction Worker Safety.” *National Occupational Injury Research Symposium*, National Institute of Occupational Safety and Health, Morgantown, WV, October 15-17, 1997.
- “A Tool for Planning and Monitoring Construction Site Safety.” *National Occupational Injury Research Symposium*, National Institute of Occupational Safety and Health (NIOSH), Morgantown, WV, October 15-17, 1997. Poster presentation.
- “Constructability: A Quality Improvement Approach to Transportation Projects.” *Transportation Research Board (TRB) Annual Conference*, Washington, DC, January 12-16, 1997.
- “Construction Safety: A Focus on Project Design.” Northwest Construction Consumer Council, Seattle, WA, June 26, 1996.

“A Framework for the Constructability Review of Transportation Projects.” Washington State Department of Transportation Statewide Project Planning, Engineering, and Construction Conferences, Wenatchee, WA, March 25-27, 1996, and June 5, 1996.

“Designing for Construction Worker Safety: Consideration of Construction Worker Safety in the Design Phase.” Houston Business Roundtable Quarterly Forum, Houston, TX, November 14, 1995.

“Design for Safety.” *Construction Project Improvement Conference*, Construction Industry Institute (CII), Austin, TX, September 11-13, 1995.

“Design for Safety.” *Construction Industry Institute (CII) Annual Conference*, San Diego, CA, August 1-3, 1995.

## CONFERENCE PARTICIPATION

*Journey into Leadership V*, Oregon State University, Corvallis, OR, Dec. 2006-April, 2007.

*NexCon 2006 Next Generation Construction Summit: Defining the New Critical Path*, Greater Portland Construction Partnership, Portland, OR, Nov. 8-9, 2006.

*Design-Build Educator Workshop*, Design-Build Institute of America and the California Center for Construction Education, San Luis Obispo, CA, June 1-3, 2006.

*AISC Faculty Workshop*, American Institute of Steel Construction, Rosemont, IL, Sept. 29, 2004.

*Academic Leadership Meeting*, Construction Industry Institute (CII), Houston, TX, Oct. 28, 2003.

National Construction Industry Education Forum. American Council for Construction Education (ACCE), Las Vegas, NV, March 21-22, 1999.

Engineering Scholars Workshop. National Science Foundation (NSF), Carnegie Mellon University, Pittsburgh, PA, July 19-24, 1998.

## INVITED LECTURES

“Construction Site Safety: Improving Safety through Effective Project Management.” Lecture Series on Construction Project Management, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, CA, August 3, 2000.

“Designing for Safety.” M.E. Rinker Sr. Lecture Series on Construction Health and Safety, University of Florida, Gainesville, FL, September 21-22, 1998.

## RESEARCH

### Current Funded Research

“Energizing Innovation in Integrated Project Delivery.” Foundation for Integrated Services and Charles Pankow Foundation (\$135,000), Mar. 2006 – Oct. 2007.

“Development of Part 645 – Construction Inspection of the NRCS National Engineering Handbook.” U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) (\$80,499), Aug. 2004 – Sept. 2007.

### Past Funded Research

“Optimum Illumination for Nighttime Flagger Operations.” Oregon Department of Transportation, SPR Project 617, Salem, OR (\$70,618). Aug. 2003 – Sept. 2005.

“An Analysis of Construction Accidents from a Design and Planning Perspective.” The Center to Protect Workers’ Rights, Graduate Student Grant Program (\$2,500). Dec. 2003 - Nov. 2004.

“Evaluation of the Intel Life Cycle Safety Process,” University of Oregon, Labor Education and Research Center (\$70,230), July 2001-June 2004.

- “Design Practices to Facilitate Construction Automation,” Construction Industry Institute (CII), Austin, TX (\$102,290), January 2001-September 2003.
- “Investigation of the Viability of Designing for Safety.” The Center to Protect Workers’ Rights, Washington, D.C. (\$19,973), Jan. 2002 - Sept. 2003.
- “Safety CPM Project,” University of Florida (\$20,000, subcontract to a study conducted at the University of Florida funded (\$470,000) by The Center to Protect Workers’ Rights (CPWR), Washington, DC), January 2000-December 2004.
- “Best Practices for Preventing Hearing Loss in Construction.” Oregon Department of Consumer and Business Services, Occupational Safety and Health Training and Education, Salem, OR (\$39,354), Jan. 2002 - Mar. 2003.
- “Development of CM/GC Best Practices Manual,” Associated General Contractors (AGC) Oregon-Columbia Willamette Chapter and the Oregon Public Contracting Coalition (\$10,700), September 2001-June 2002.
- “Cost/Benefits of Constructibility Reviews,” (Co-PI with Mr. James McManus, University of Washington; Dr. Phillip Dunston, University of Washington, PI), National Cooperative Highway Research Program (\$39,995), August 2000-November 2001.
- “Safety Plus: Making Zero Accidents a Reality, University of Florida (\$7,500, subcontract to a study conducted at the University of Florida funded (\$104,188) by the Construction Industry Institute (CII), Austin, TX), June 1999-June 2001.
- “Project Labor Agreements,” (Co-PI with Dr. Jaeho Son, University of Nevada, Las Vegas; Mr. Neil Opfer, University of Nevada, Las Vegas, PI), Associated Builders and Contractors (ABC), Las Vegas, NV (\$40,000), March-August 2000.
- “Using Soundless Chemical Demolition Agents (SCDA’s) for Micro-Cracking Concrete,” University of Nevada, Las Vegas New Investigator Award (\$10,000), June 1999-May 2000.
- “Field Testing of Dust Suppression Agents using a Portable Wind Tunnel,” (Investigator with PI Dr. David James, University of Nevada, Las Vegas), Clark County Health District, Clark County, NV (\$68,345), June 1998-June 1999.
- “Evaluation of Soundless Chemical Demolition Agents (SCDA’s) for Use in Creating Micro-Cracking for the Bioremediation of Concrete,” Western Alliance to Expand Student Opportunities (WAESO) (\$1,378), January-May 1999.
- “Development and Evaluation of a System for Suppressing PM<sub>10</sub> Emissions Generated from the Operation of Earthmoving Equipment in Construction,” Clark County Health District, Clark County, NV (\$39,472); Department of Energy (DOE) EPSCoR Young Scholar Program (\$2,500); and Western Alliance to Expand Student Opportunities (WAESO) (\$1,378), June 1998-May 1999.
- “Energy Efficient Home Construction,” Department of Energy (DOE) EPSCoR Young Scholar Program (\$2,500), June 1998-August 1998.
- “Supplement to the Constructability Review Process Phase II Study to include the Washington State Ferries,” (Investigator with PI Mr. James McManus, University of Washington), Washington State Ferries (\$35,000), December 1996-September 1997.
- “Constructability Review Process, Phase II,” (Investigator with PI Mr. James McManus, University of Washington), Washington State Dept. of Transportation (\$69,900), March 1996-September 1997.
- “Designing for Construction Worker Safety,” (Research Assistant with PI Dr. Jimmie Hinze, University of Washington), Construction Industry Institute (CII), Austin, TX (\$79,000), January 1994-December 1995.